

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 8,880,862 B2  
APPLICATION NO. : 13/118122  
DATED : November 4, 2014  
INVENTOR(S) : Fallon et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

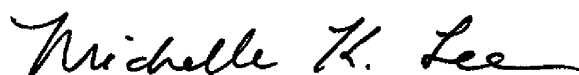
In the Claims

At column 27, line 11, please replace "a memory" with --a first memory--.

At column 30, line 67, please replace "accessed first portion comprise" with --accessed portion comprises--.

At column 31, line 1, please replace "accessed first portion" with --accessed portion--.

Signed and Sealed this  
Seventh Day of April, 2015



Michelle K. Lee  
*Director of the United States Patent and Trademark Office*

**SPE RESPONSE FOR CERTIFICATE OF CORRECTION**

DATE : 3/6/15

TO SPE OF : ART UNIT: 2118 Examiner: SURYAWANSHI, SURESH  
SUBJECT : Request for Certificate of Correction for Appl. No.: 13118122 Patent No.: 8880862

CofC mailroom date: 12/16/14

Please respond to this request for a certificate of correction within 7 days.

**FOR IFW FILES:**

Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

Please complete the response (see below) and forward the completed response to scanning using document code **COCX**.

**FOR PAPER FILES:**

Please review the requested changes/corrections as shown in the attached certificate of correction. Please complete this form (see below) and forward it with the file to:

**Certificates of Correction Branch (CofC)  
Randolph Square – 9D10-A  
Palm Location 7580**

**File in the appropriate box and enclose to 571-272-3421**

Note: **Should the changes in the claims be approved?**

*Lamonte Newsome*

Certificates of Correction Branch

**571-272-3421**

**Thank You For Your Assistance**

**The request for issuing the above-identified correction(s) is hereby:**

Note your decision on the appropriate box.

**SPE RESPONSE FOR CERTIFICATE OF CORRECTION**

**Approved**

All changes apply.

**Approved in Part**

Specify below which changes do not apply.

**Denied**

State the reasons for denial below.

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

**SPE**

**Art Unit**

**SPE RESPONSE FOR CERTIFICATE OF CORRECTION**

DATE : 3/6/15

TO SPE OF : ART UNIT: 2118 Examiner: SURYAWANSHI, SURESH  
SUBJECT : Request for Certificate of Correction for Appl. No.: 13118122 Patent No.: 8880862

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**Randolph Square – 9D10-A**  
**Palm Location 7580**  
*You can fax the Directors/SPE response to 571-273-3421.*

Note: **Should the changes in the claims be approved?**

*Lamonte Newsome*

Certificates of Correction Branch

571-272-3421

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**SPE RESPONSE FOR CERTIFICATE OF CORRECTION**

**Approved**

All changes apply.

**Approved in Part**

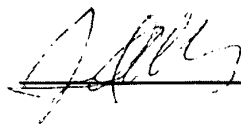
Specify below which changes do not apply.

**Denied**

State the reasons for denial below.

**Comments:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
\_\_\_\_\_

2118

**SPE**

**Art Unit**

AO 120 (Rev. 08/10)

<b>TO:</b> <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
--	---

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the Eastern District of Texas on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 4:14-cv-00827	DATE FILED 12/19/2014	U.S. DISTRICT COURT for the Eastern District of Texas
PLAINTIFF Realtime Data, LLC d/b/a IXO		DEFENDANT Microsoft Corporation, Dell Incorporated, Hewlett-Packard Company
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,181,608	2/20/2007	Realtime Data, LLC
2 8,090,936	1/3/2012	Realtime Data, LLC
3 8,880,862	11/4/2014	Realtime Data, LLC
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
--------------------

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of:

FALLON *et al.*

Patent No.: 8,880,862 B2

Issued: November 4, 2014

For: **Systems and Methods for Accelerated  
Loading of Operating Systems and  
Application Programs**

Confirmation No.: 8978

Art Unit: 2118

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Request for Certificate of Correction  
Under 37 C.F.R. § 1.322 and 37 C.F.R. § 1.323**

*Attn: Certificate of Correction Branch*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

It is hereby requested that a Certificate of Correction under 37 C.F.R. § 1.322 and 37 C.F.R. § 1.323 be issued for the above-captioned United States Patent. This Certificate of Correction is being requested due to mistakes which appear in the printed patent. These mistakes were made by the U.S. Patent and Trademark Office and the Patentees. The mistakes made by Patentees are of a clerical or typographical nature, or of a minor character. Patentees submit that correction of these errors does not introduce new matter.

Specifically, the printed patent contains the following errors for which a Certificate of Correction is respectfully requested:

At column 27, line 11, please replace "a memory" with --a first memory--. This is a typographical error made by the USPTO. The USPTO did not include the word "first" in the phrase --a first memory-- as recited by issued claim 6 which was renumbered from prosecution claim 7. Prosecution claim 7 was amended to recite "a first memory" in the

Amendment Under 37 C.F.R. § 1.116 that was filed on August 20, 2014. Therefore, the patent should have issued with --a first memory-- at column 27, line 11.

At column 30, line 67, please replace “accessed first portion comprise” with --accessed portion comprises--. This is a typographical error made by **Patentees** in prosecution claim 84 as amended in the Amendment Under 37 C.F.R. § 1.111 that was filed on May 6, 2014. Prosecution claim 84, now issued claim 62, should have been amended to recite “wherein the decompressing the accessed portion comprises”. Therefore, the patent should have issued with --accessed portion comprises-- at column 30, line 67.

At column 31, line 1, please replace “accessed first portion” with --accessed portion--. This is a typographical error made by the **USPTO**. The USPTO did not delete the word “first” in the phrase --accessed portion-- as recited by issued claim 62 which was renumbered from prosecution claim 84. Prosecution claim 84 was amended to recite --accessed portion-- in the Amendment Under 37 C.F.R. § 1.312 that was filed on September 26, 2014. This Amendment was subsequently entered by Examiner Suryanwanshi on October 6, 2014. Therefore, the patent should have issued with --accessed portion-- at column 31, line 1.

***Remarks***

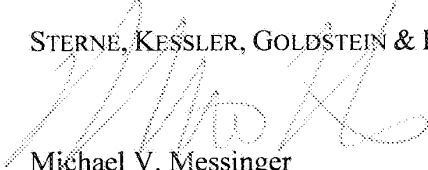
The above-noted corrections do not involve such changes in the patent as would constitute new matter or would require reexamination.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon. Accordingly, a Certificate of Correction is believed proper and issuance thereof is respectfully requested.

The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Patentees  
Registration No. 37,575

Date: December 16, 2014

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

1939242\_1

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO: 8,880,862 B2

DATED: November 4, 2014

INVENTOR(S): FALLON *et al.*

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At column 30, line 67, please replace "accessed first portion comprise" with --accessed portion comprises--.

At column 31, line 1, please replace "accessed first portion" with --accessed portion--.

1939274\_1

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Sterne, Kessler, Goldstein & Fox P.L.L.C.  
1100 New York Avenue, NW  
Washington DC 20005-3934

Atty. Dkt. No. 2855.004000B

This collection of information is required by 37 CFR 1.322, 1.323 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122				
<b>Filing Date:</b>	27-May-2011				
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS				
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon				
<b>Filer:</b>	Michael V. Messinger				
<b>Attorney Docket Number:</b>	2855.004000B				
Filed as Large Entity					
<b>Filing Fees for Utility under 35 USC 111(a)</b>					
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>	
<b>Basic Filing:</b>					
<b>Pages:</b>					
<b>Claims:</b>					
<b>Miscellaneous-Filing:</b>					
<b>Petition:</b>					
<b>Patent-Appeals-and-Interference:</b>					
<b>Post-Allowance-and-Post-Issuance:</b>					
Certificate of Correction	1811	1	100	100	

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>100</b>



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	20978591
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	16-DEC-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	15:59:48
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$100
RAM confirmation Number	2749
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2855004000BRequestCOC.pdf	1992597 4dfe881127f33d7803d77b80c41d493c2708a632	yes	5

Multipart Description/PDF files in .zip description					
Document Description		Start	End		
Miscellaneous Incoming Letter		1	1		
Request for Certificate of Correction		2	5		

**Warnings:**

**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	30194 c22fb01aadda8b37d7ab13bb8a571f9548253993	no	2
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**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>	2022791
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



December 16, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2118**  
**Attn: Mail Stop Certificate of Correction**

Re: U.S. Patent No. 8,880,862; Issue Date: November 4, 2014  
(from U.S. Appl. No. 13/118,122; Filing Date: May 27, 2011)  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of **\$100.00** to cover:  
**\$100.00** - Request for Certificate of Correction fee;
2. Request for Certificate of Correction Under 37 C.F.R. § 1.322 and 1.323; and
3. Certificate of Correction Form (PTO/SB/44).

The above-listed documents are filed electronically through EFS-Web.

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read 'Michael V. Messinger', written over a faint, dotted-line signature.

Michael V. Messinger  
Attorney for Patentees  
Registration No. 37,575

MVM/aff  
Enclosures

1943315\_1



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., ISSUE DATE, PATENT NO., ATTORNEY DOCKET NO., CONFIRMATION NO.
13/118,122 11/04/2014 8880862 2855.004000B 8978

26111 7590 10/15/2014
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

- James J. Fallon, Armonk, NY;
John Buck, Oceanside, NY;
Paul F. Pickel, Bethpage, NY;
Stephen J. McErlain, New York, NY;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978
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26111                      7590                      10/06/2014  
 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
 1100 NEW YORK AVENUE, N.W.  
 WASHINGTON, DC 20005

EXAMINER
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SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2118

MAIL DATE	DELIVERY MODE
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10/06/2014	PAPER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Response to Rule 312 Communication</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2118

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

1.  The amendment filed on 26 September 2014 under 37 CFR 1.312 has been considered, and has been:
- a)  entered.
  - b)  entered as directed to matters of form not affecting the scope of the invention.
  - c)  disapproved because the amendment was filed after the payment of the issue fee.  
Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
  - d)  disapproved. See explanation below.
  - e)  entered in part. See explanation below.

Claims amendments and IDS submitted by applicants has been considered and entered.

	/SURESH SURYAWANSHI/ Primary Examiner, Art Unit 2118
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for Accelerated  
Loading of Operating Systems and  
Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment Under 37 C.F.R. § 1.312**

*Mail Stop Issue Fee*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herein is an Amendment Under 37 C.F.R. § 1.312. As payment of the issue fee has not yet been made or is filed herewith, Applicants respectfully submit that filing under 37 C.F.R. § 1.312 is proper. (M.P.E.P. § 714.16.)

It is believed that extensions of time are not required beyond those that may otherwise be provided for in documents accompanying this Amendment. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

OK to enter  
/SKS/  
10/1/14

**EAST Search History**

**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	18	("6723225" "6959110" "7548657" "8112619" "7181608" "7378992" "7415530" "7161506" "7395345" "7352300" "6604158" "7321937" "7400274" "7777651" "7417568" "7714747" "6624761" "6601104").pn.	USPAT	OR	OFF	2014/10/01 13:22
S2	1	"6195024".pn.	USPAT	OR	OFF	2014/10/01 13:30

**10/ 1/ 2014 1:30:57 PM**

**C:\ Users\ ssuryawanshi\ Documents\ EAST\ Workspaces\ 13118122AcceleratedLoadingOfOSPart8.wsp**



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2118

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Eleventh Supplemental Information Disclosure Statement**

*Mail Stop Issue Fee*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Appeal Brief filed 09/22/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	<i>Inter Partes</i> Reexamination Certificate issued 08/04/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Notice of Intent to Issue Reexamination Certificate mailed 09/24/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
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Atty. Dkt. No. 2855.004000B

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		01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Appeal Terminated

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicant has listed publication dates on the attached IDS Form based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicant reserves the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

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Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but on or before payment of the Issue Fee. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

In accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents and patent application publications cited as documents **US1-US5** on the attached IDS Form are submitted.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

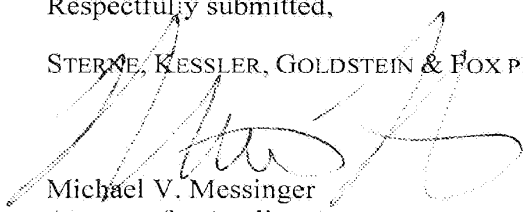
office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Form, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicant  
Registration No. 37,575

Date:

September 26, 2014

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
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Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>ELEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number		13/118,122	
		Filing Date		May 27, 2011	
		First Named Inventor		James J. FALLON	
		Art Unit		2118	
		Examiner Name		SURYAWANSHI, Suresh	
Sheet	1	of	1	Attorney Docket Number 2855.004000B	

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
	US1	6,723,225 B2		04-20-2004	Scheps	
	US2	6,959,110 B1		10-25-2005	Danskin	
	US3	7,548,657 B2		06-16-2009	Deaven	
	US4	2007/0096954 A1		05-03-2007	Boldt et al.	
	US5	2010/0011012 A1		01-14-2010	Rawson	

FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

1907493\_1.DOCX

Examiner Signature	/Suresh Suryawanshi/	Date Considered	10/01/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



September 26, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2118**  
**Attn: Mail Stop Issue Fee**

Re: U.S. Utility Patent Application  
Appl. No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith is a copy of document **NPL5** as originally cited by the Applicants in the Tenth Supplemental Information Disclosure Statement on August 20, 2014. This document is a Right of Appeal Notice Under 37 C.F.R. § 1.953 mailed on June 9, 2014, in the *Inter Partes* Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923.

***This document is submitted electronically through EFS-Web.***

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to be 'M. Messinger', written over the printed name.

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/wcf  
Enclosures

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## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	20255610
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/Ann-Marie Fazekas
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	26-SEP-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	15:40:55
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	2855004000BNPL.pdf	449352 031d51ca7082f45c208eae6797247e20a01d6a7b	no	1

### Warnings:

### Information:

2	Non Patent Literature	NPL5_RAN_95001923_06092014.pdf	496972 <small>7c3c54c8bf37444d4d2417afc58f08583d378da</small>	no	14
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			946324		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2118

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Eleventh Supplemental Information Disclosure Statement**

*Mail Stop Issue Fee*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
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<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Appeal Brief filed 09/22/2014
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<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

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		01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
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10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Appeal Terminated

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

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Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

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Atty. Dkt. No. 2855.004000B

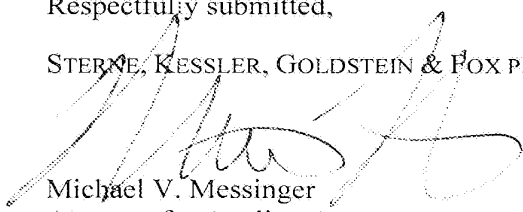
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Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicant  
Registration No. 37,575

Date:

September 26, 2014

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

1907522\_1.DOCX

Atty. Dkt. No. 2855.004000B





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for Accelerated  
Loading of Operating Systems and  
Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment Under 37 C.F.R. § 1.312**

*Mail Stop Issue Fee*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herein is an Amendment Under 37 C.F.R. § 1.312. As payment of the issue fee has not yet been made or is filed herewith, Applicants respectfully submit that filing under 37 C.F.R. § 1.312 is proper. (M.P.E.P. § 714.16.)

It is believed that extensions of time are not required beyond those that may otherwise be provided for in documents accompanying this Amendment. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

*Amendments to the Claims*

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, the method comprising:

loading a portion of boot data in a compressed form that is associated with a portion of a boot data list for booting the computer system into a memory;

accessing the loaded portion of the boot data in the compressed form from the memory;

decompressing the accessed portion of the boot data in the compressed form at a rate that decreases a boot time of the operating system relative to loading the operating system utilizing boot data in an uncompressed form; and

updating the boot data list,

wherein the decompressed portion of boot data comprises a portion of the operating system.

2. (Previously Presented) The method of claim 1, wherein the updating comprises:

associating additional boot data with the boot data list.

3. (Previously Presented) The method of claim 1, wherein the updating comprises:

removing an association of additional boot data that is associated with the boot data list from the boot data list.

4. (Previously Presented) The method of claim 1, wherein the updating comprises:

associating additional boot data with the boot data list; and  
compressing a portion of the additional boot data.

5. (Cancelled)

6. (Previously Presented) A method for booting a computer system, the method comprising:

storing boot data in a compressed form that is associated with a portion of a boot data list in a first memory;

loading the stored compressed boot data from the first memory;

accessing the loaded compressed boot data;

decompressing the accessed compressed boot data;

utilizing the decompressed boot data to at least partially boot the computer system; and

updating the boot data list,

wherein the loading, the accessing, and the decompressing occur within a period of time which is less than a time to access the boot data from the first memory if the boot data was stored in the first memory in an uncompressed form.

7. (Previously Presented) A system, comprising:  
a processor; and  
a first memory; and  
a second memory configured to store boot data in a compressed form for booting the system and a logic code associated with the processor,

wherein the processor is configured:

to load a portion of the boot data in the compressed form that is associated with a boot data list used for booting the system into the first memory,

to access the loaded portion of the boot data in the compressed form,

to decompress the accessed portion of the boot data in the compressed form at a rate that decreases a boot time of the system relative to booting the system with uncompressed boot data, and

to update the boot data list.

8. (Previously Presented) The system of claim 7, further comprising:

a data compression engine, coupled to the second memory, configured to compress the portion of the boot data to provide the portion of the boot data in the compressed form; and

a data compression encoder, coupled to the data compression engine, configured to compress additional boot data, the additional boot data not being associated with the boot data list.

9. (Previously Presented) A method of loading an operating system for booting a computer system, comprising:

storing a portion of the operating system in a compressed form in a first memory;

loading the portion of the operating system from the first memory to a second memory, the portion of the operating system being associated with a boot data list;

accessing the loaded portion of the operating system from the second memory in the compressed form;

decompressing the accessed portion of the operating system to provide a decompressed portion of the operating system;

utilizing the decompressed portion of the operating system to at least partially boot the computer system; and

updating the boot data list,

wherein the portion of the operating system is accessed and decompressed at a rate that is faster than accessing the loaded portion of the operating system from the first memory if the portion of the operating system was to be stored in the first memory in an uncompressed form.

10. (Currently Amended) The method of claim 9, further comprising:

compressing an additional portion of the operating system that is not associated with the boot data list; and

storing the additional portion of the operating system in the first memory, and

wherein ~~[[said]]~~ the utilizing comprises:

utilizing the stored additional portion of the operating system to at least further partially boot the computer system.

11. (Previously Presented) The method of claim 10, wherein the compressing comprises:

compressing the additional portion of the operating system with a data compression encoder.

12. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in a compressed form that is associated with a boot data list from a boot device into a memory upon initialization of the computer system;

accessing the loaded boot data in the compressed form from the memory;

decompressing the accessed boot data in the compressed form at a rate that decreases a time to load the operating system relative to loading the operating system with boot data in an uncompressed form;

utilizing the decompressed boot data to load at least a portion of the operating system for the computer system; and

updating the boot data list.

13. (Previously Presented) The method of claim 12, further comprising:

compressing boot data that is not associated with the boot data list with a data compression encoder.

14. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in a compressed form that is associated with a boot data list from a boot device;

accessing the loaded boot data in the compressed form;

decompressing the accessed boot data in the compressed form at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in an uncompressed form; and

updating the boot data list.

15. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein a portion of the boot data is in a compressed form and is associated with a boot data list;

loading the boot data into a memory; and

servicing a request for the boot data from the computer system to access the loaded compressed boot data and to decompress the accessed compressed boot data at a rate that decreases a boot time of the operating system relative to loading the operating system utilizing the boot data in an uncompressed form; and

updating the boot data list.



16. (Previously Presented) The method of claim 15, wherein the boot data comprises:

a program code associated with the operating system.

17. (Previously Presented) The method of claim 15, wherein the operating system comprises:

a plurality of files.

18. (Cancelled)

19. (Previously Presented) The method of claim 15, wherein the boot data comprises:

a program code associated with the operating system and an application program.

20. (Previously Presented) The method of claim 19, wherein the application program comprises:

a plurality of files.

21.-22 (Cancelled)

23. (Previously Presented) The method of claim 15, wherein the request for the boot data comprises:

a request to access boot data that is not associated with the boot data list, and wherein the updating comprises:

associating the accessed boot data that is not associated with the boot data list to the boot data list.

24. (Previously Presented) The method of claim 15, wherein the updating comprises:

disassociating non-accessed boot data from the boot data list.

25. (Previously Presented) The method of claim 15, further comprising:  
maintaining the boot data list.

26. (Previously Presented) The method of claim 15, wherein the accessing comprises:

accessing the boot data from a non-volatile memory.

27. (Previously Presented) The method of claim 1, wherein the portion of the boot data in the compressed form represents a plurality of files.

28. (Previously Presented) The method of claim 1, wherein the portion of the boot data in the compressed form comprises:

a program code associated with the operating system.

29. (Previously Presented) The method of claim 1, further comprising:  
compressing the portion of the boot data with a compression encoder to provide  
the portion of the boot data in the compressed form.

30. (Previously Presented) The method of claim 1, wherein the  
decompressing comprises:

decompressing the accessed portion of the boot data in the compressed form  
utilizing a decompression decoder.

31. – 32. (Cancelled)

33. (Previously Presented) The method of claim 1, wherein the memory  
comprises:

a physical memory.

34. – 36. (Cancelled)

37. (Previously Presented) The method of claim 1, wherein the operating  
system comprises:

a plurality of files.

38. (Cancelled)

39. (Previously Presented) The method of claim 1, wherein the boot data comprises:

a program code associated with the operating system and an application program.

40. (Previously Presented) The method of claim 39, wherein the application program comprises:

a plurality of files.

41. (Previously Presented) The method of claim 1, wherein the accessing comprises:

accessing the loaded portion of the boot data in the compressed form via direct memory access.

42. (Previously Presented) The method of claim 1, wherein a form of dictionary encoding was utilized to encode the portion of the boot data in the compressed form.

43. (Previously Presented) The method of claim 1, wherein Lempel-Ziv encoding was utilized to encode the portion of the boot data in the compressed form.

44. (Currently Amended) The method of claim 1, wherein a plurality of encoders ~~were~~ was utilized to encode the portion of the boot data in the compressed form.

45. (Previously Presented) The method of claim 6, wherein the compressed boot data represents a plurality of files.

46. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises:

a program code associated with an operating system of the computer system.

47. (Previously Presented) The method of claim 6, further comprising:  
compressing the boot data to provide the boot data in the compressed form.

48. (Previously Presented) The method of claim 6, wherein the decompressing comprises:

decompressing the accessed compressed boot data with a decompression decoder.

49. – 50. (Cancelled)

51. (Currently Amended) The method of claim 6, wherein the loading comprises:

loading the stored compressed boot data from the first memory to a second memory, and wherein the second memory comprises:

a physical memory.

52. – 54. (Cancelled)

55. (Previously Presented) The method of claim 46, wherein the operating system comprises:

a plurality of files.

56. (Cancelled)

57. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises:

a program code associated with an operating system of the computer system and an application program.

58. (Previously Presented) The method of claim 57, wherein the application program comprises:

a plurality of files.

59. (Previously Presented) The method of claim 6, wherein the accessing comprises:

accessing the loaded compressed boot data via direct memory access.

60. (Previously Presented) The method of claim 6, wherein a form of dictionary encoding was utilized to encode the compressed boot data.

61. (Previously Presented) The method of claim 6, wherein Lempel-Ziv encoding was utilized to encode the compressed boot data.

62. (Currently Amended) The method of claim 6, wherein a plurality of encoders ~~were~~ was utilized to encode the compressed boot data.

63. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form represents a plurality of files.

64. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form comprises:

a program code associated with an operating system.

65. (Previously Presented) The system of claim 7, further comprising:  
an encoder configured to compress the boot data to provide the boot data in the compressed form.

66. (Previously Presented) The system of claim 7, further comprising:  
a decoder configured to decompress the boot data in the compressed form.

67. – 68. (Cancelled)

69. (Previously Presented) The system of claim 7, wherein the first memory comprises:

a physical memory.

70. – 72. (Cancelled)

73. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form comprises:

a plurality of files.

74. (Cancelled)

75. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form comprises:

a program code associated with an operating system of the system and an application program.

76. (Previously Presented) The system of claim 75, wherein the application program comprises:

a plurality of files.



77. (Previously Presented) The system of claim 7, wherein the processor is further configured to access the loaded portion of the boot data in the compressed form from the first memory via direct memory access.

78. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize a form of dictionary encoding to encode a portion of the boot data to provide the portion of the boot data in the compressed form.

79. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode a portion of the boot data to provide the portion of the boot data in the compressed form.

80. (Previously Presented) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in the compressed form.

81. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form represents a plurality of files.

82. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form comprises:  
program code associated with the operating system.

83. (Previously Presented) The method of claim 9, further comprising:  
compressing a portion of the operating system to provide the portion of the  
operating system in the compressed form.

84. (Currently Amended) The method of claim 9, wherein the decompressing  
the accessed first portion comprise:  
decompressing the accessed ~~first~~ portion with a decompression decoder.

85. – 86. (Cancelled)

87. (Previously Presented) The method of claim 9, wherein the second  
memory comprises:  
a physical memory.

88. – 90. (Cancelled)

91. (Previously Presented) The method of claim 9, wherein the operating  
system comprises:  
a plurality of files.

92. (Cancelled)

93. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form comprises:

a program code associated with the operating system and an application program.

94. (Previously Presented) The method of claim 93, wherein the application program comprises:

a plurality of files.

95. (Previously Presented) The method of claim 9, wherein the accessing comprises:

accessing the loaded first portion from the second memory via direct memory access.

96. (Previously Presented) The method of claim 9, wherein a form of dictionary encoding was utilized to encode the operating system in the compressed form.

97. (Previously Presented) The method of claim 9, wherein Lempel-Ziv encoding was utilized to encode the operating system in the compressed form.

98. (Currently Amended) The method of claim 9, wherein a plurality of encoders ~~were~~ was utilized to encode the operating system in the compressed form.

99. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form represents a plurality of files.

100. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

101. (Previously Presented) The method of claim 12, further comprising:  
compressing the boot data to provide the boot data in the compressed form.

102. (Previously Presented) The method of claim 12, wherein the decompressing comprises:

decompressing the boot data in the compressed form utilizing a decompression decoder.

103. – 104. (Cancelled)

105. (Previously Presented) The method of claim 12, wherein the memory comprises:

a physical memory.

106. – 108. (Cancelled)

109. (Previously Presented) The method of claim 12, wherein the operating system comprises:

a plurality of files.

110. (Cancelled)

111. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with the operating system and an application program.

112. (Previously Presented) The method of claim 111, wherein the application program comprises:

a plurality of files.

113. (Previously Presented) The method of claim 12, wherein the accessing comprises:

accessing the boot data in the compressed form from the memory via direct memory access.

114. (Previously Presented) The method of claim 12, wherein a form of dictionary encoding was utilized to encode the boot data in the compressed form.

115. (Previously Presented) The method of claim 12, wherein Lempel-Ziv encoding was utilized to encode the boot data in the compressed form.

116. (Currently Amended) The method of claim 12, wherein a plurality of encoders ~~were~~ was utilized to encode the boot data in compressed form.

117. (Previously Presented) The method of claim 14, wherein the boot data in the compressed form represents a plurality of files.

118. (Previously Presented) The method of claim 14, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

119. (Previously Presented) The method of claim 14, further comprising:  
compressing the boot data to provide the compressed boot data.

120. (Previously Presented) The method of claim 14, wherein the decompressing comprises:

decompressing the compressed boot data with a decompression decoder.

121. – 122. (Cancelled)

123. (Previously Presented) The method of claim 14, wherein the memory comprises:

a physical memory.

124. – 126. (Cancelled)

127. (Previously Presented) The method of claim 14, wherein the operating system comprises:

a plurality of files.

128. (Cancelled)

129. (Currently Amended) The method of claim 14, wherein the boot data in the compressed form comprises:

a program code associated with ~~a combination~~ of the operating system and application program.

130. (Previously Presented) The method of claim 129, wherein the application program comprises:

a plurality of files.

131. (Previously Presented) The method of claim 14, wherein the accessing comprises:

accessing the loaded boot data in the compressed form via direct memory access.

132. (Previously Presented) The method of claim 14, wherein a form of dictionary encoding was utilized to encode the compressed boot data.

133. (Previously Presented) The method of claim 14, wherein Lempel-Ziv encoding was utilized to encode the compressed boot data.

134. (Currently Amended) The method of claim 14, wherein a plurality of encoders ~~were~~ was utilized to encode the compressed boot data.

135. (Previously Presented) The method of claim 1, further comprising:  
accessing additional boot data that is not associated with the boot data list, and  
wherein the updating comprises:  
associating the additional boot data with the boot data list.

136. (Previously Presented) The method of claim 1, wherein the updating comprises:  
disassociating non-accessed boot data from the boot data list.

137. (Previously Presented) The method of claim 6, further comprising:  
accessing additional compressed boot data that is not associated with the boot data list, and wherein the updating comprises:



associating the additional compressed boot data with the boot data list.

138 (Previously Presented) The method of claim 6, wherein the updating comprises:

disassociating non-accessed boot data from the boot data list.

139. (Previously Presented) The system of claim 7, wherein the processor is further configured:

to access additional boot data that is not associated with the boot data list, and  
to associate the additional boot data with the boot data list.

140. (Previously Presented) The system of claim 7, wherein the processor is further configured:

to disassociate non-accessed boot data from the boot data list.

141. (Currently Amended) The method of claim 9, further comprising:  
accessing an additional portion of the operating system that is not associated with  
the boot data list, and wherein the updating comprises:

associating the additional portion of the operating system with the boot data list.

142. (Previously Presented) The method of claim 9, wherein the updating comprises:

disassociating a non-accessed portion of the operating system from the boot data list.

143. (Previously Presented) The method of claim 12, further comprising:  
accessing additional boot data that is not associated with the boot data list, and  
wherein the updating comprises:  
associating the additional boot data with the boot data list.

144. (Previously Presented) The method of claim 12, wherein the updating  
comprises:  
disassociating non-accessed boot data from the boot data list.

145. (Previously Presented) The method of claim 14, further comprising:  
accessing additional boot data that is not associated with the boot data list, and  
wherein the updating comprises:  
associating the additional boot data with the boot data list.

146. (Previously Presented) The method of claim 14 wherein the updating  
comprises:  
disassociating non-accessed boot data from the boot data list.

147. (Previously Presented) The method of claim 2, further comprising:  
storing the updated boot list in a non-volatile memory.

148. (Previously Presented) The method of claim 2, further comprising:  
compressing at least a portion of the additional boot data.

149. (Previously Presented) The method of claim 148, further comprising:  
storing the compressed additional boot data.

150. (Currently Amended) The method of claim 1, wherein a plurality of data  
compression encoders ~~were~~ was utilized to encode the portion of the boot data in the  
compressed form.

151. (Previously Presented) The method of claim 1, wherein the updating  
comprises:  
updating the boot data list in response to the accessing.

152. (Previously Presented) The method of claim 6, wherein the updating  
comprises:  
updating the boot data list in response to the utilizing.

153. (Previously Presented) The system of claim 7, wherein the processor is  
configured to update the boot data list based upon the accessed portion of the boot data.

154. (Previously Presented) The method of claim 9, wherein the updating comprises:

updating the boot data list in response to the accessing or the utilizing.

155. (Previously Presented) The method of claim 12, wherein the updating comprises:

updating the boot data list in response to the accessing or the utilizing.

156. (Previously Presented) The method of claim 14, wherein the updating comprises:

updating the boot data list in response to the accessing.

157. (Previously Presented) The method of claim 15, wherein the updating comprises:

updating the boot data list in response to the servicing.

**Remarks**

Reconsideration of this Application and entry of the above Amendment is respectfully requested.

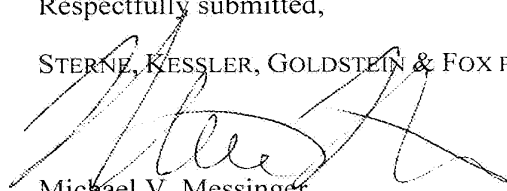
Upon entry of the foregoing amendment, claims 1-4, 6-17, 19, 20, 23-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73, 75-84, 87, 91, 93-102, 105, 109, 111-120, 123, 127, and 129-157 are pending in the application with claims 1, 6, 7, 9, 12, 14, and 15 being the independent claims. Claims 12, 44, 51, 62, 84, 98, 116, 129, 134, 141, and 150 are sought to be amended to correct formal matters in these claims without changing the scope thereof. Applicants reserve the right to prosecute similar or broader claims, with respect to the amended and/or cancelled claims in the future. These changes are believed to introduce no new matter, and their entry is respectfully requested.

**Conclusion**

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Date: September 26, 2014

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1907151\_1

Atty. Dkt. No. 2855.004000B

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Michael V. Messinger/Ann-Marie Fazekas			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	20255776
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/Ann-Marie Fazekas
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	26-SEP-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	15:42:15
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	2215
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000BIF.pdf	13035294	yes	37
7338f82d5ec49b9463693c41a757867ef06528a7					
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Miscellaneous Incoming Letter	1	1	
		Issue Fee Payment (PTO-85B)	2	2	
		Information Disclosure Statement (IDS) Form (SB08)	3	9	
		Amendment after Notice of Allowance (Rule 312)	10	10	
		Claims	11	36	
		Applicant Arguments/Remarks Made in an Amendment	37	37	
<b>Warnings:</b>					
<b>Information:</b>					
2	Fee Worksheet (SB06)	fee-info.pdf	30521	no	2
5eca59d08f599d275e20c666c5e67dcb5822467					
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			13065815		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

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September 26, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
***Mail Stop Issue Fee***

Re: Allowed U.S. Utility Patent Application  
Appl. No. 13/118,122; Filed: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

In response to the **Notice of Allowance and Fee(s) Due** dated September 4, 2014, the following documents are transmitted for appropriate action by the U.S. Patent and Trademark Office:

1. Issue Fee Transmittal (Form PTOL-85);
2. Eleventh Supplemental Information Disclosure Statement;
3. Form PTO/SB/08a (1 sheet) listing 5 documents (US1-US5); and
4. Amendment Under 37 C.F.R. §1.312.

The above-listed documents are filed electronically through EFS-Web.

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,  
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read 'Michael V. Messinger', is written over the typed name and title.

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/aff  
Enclosures

1908847\_1

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450**  
or **Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if applicable). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees, will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address, and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note Use Block 1 for any change of address)

2611 75-0 09/24/2014  
**STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.**  
1100 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Date	
Signature	
Office	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONTINUATION NO.
13/118 122	05/27/2011	James J. Fallon	2855 001000B	8978

TITLE OF INVENTION: **SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS**

APPL. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEES DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$0	\$0	\$1780	\$0	12/04/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
SURYAWANSHI, SURESH	2118	713-002000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.553)  
 Change of correspondence address (for Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03/02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list:  
 (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,  
 (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Sterne, Kessler, Goldstein &  
 2 Fox P.L.L.C.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)  
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: **Realtime Data, LLC**  
 (B) RESIDENCE (CITY and STATE OR COUNTRY): **Armonk, New York**

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government


4a. The following fee(s) are submitted:  
 Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies

4b. Payment of Fees: (Please first reapply any previously paid issue fee shown above)  
 A check is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number **19-0035** (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)  
 Applicant certifying micro entity status. See 37 CFR 1.29  
 Applicant asserting small entity status. See 37 CFR 1.27  
 Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.  
 NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.  
 NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.44 for signature requirements and certifications.

Authorized Signature:   
 Typed or printed name: **Michael V. Messinger**  
 Date: **September 26, 2014**  
 Registration No.: **37,575**

TJW



PART B - FEES(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS: Same as Block 1 for any change of address.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the Patent Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission. I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above or being facsimile transmitted to the USPTO (571) 273-2885 on the date indicated below.

13/118,122

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Values: 13/118,122, 05/27/2011, James J. Fallon, 2855.0000000, 8078

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

Table with 7 columns: APPL. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, FEES PAID ISSUE FEE, TOTAL FEES DUE, DATE DUE. Values: nonprovisional, UNDISCOUNTED, \$0, \$0, \$1780, \$0, 12/04/2014

Table with 3 columns: EXAMINER, ART UNIT, CLASS-SUBCLASS. Values: SURYAWANSHI, SURESH, 2118, 713-002000

09/29/2014 HVUONG2 00000019 13118122

Change of correspondence address or indication of "Fee Address" (37 CFR 1.303). Includes checkboxes for address change and fee address indication, and a list of registered patent attorneys/agents.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type). PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.01. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Realtime Data, LLC (B) RESIDENCE (CITY AND STATE OR COUNTRY): Armonk, New York

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual [ ] Corporation or other private group entity [X] Government [ ]

4a. The following fees are submitted: Issue fee, Publication fee, Advance Order. 4b. Payment of Fees: A check is enclosed, Payment by credit card, The Director is hereby authorized to charge the required fees to any deficiency or credits any overpayment to Deposit Account Number 19-0035.

5. Change in Entity Status (from status indicated above). Applicant certifying micro entity status, Applicant asserting small entity status, Applicant changing to regular undiscounted fee status. Includes NOTICES regarding micro entity status and small/micro entity status.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature: Michael V. Messinger, Date: September 26, 2014, Registration No. 37,575

Adjustment date: 09/29/2014 HVUONG2 10/03/2013 INTEFSW 00012879 13118122 01 FC:1501 -1780.00 OP



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

26111 7590 09/04/2014
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SURYAWANSHI, SURESH

ART UNIT PAPER NUMBER

2118

DATE MAILED: 09/04/2014

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

13/118,122 05/27/2011 James J. Fallon 2855.004000B 8978

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

Table with 7 columns: APPLN. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

nonprovisional UNDISCOUNTED \$0 \$0 \$1780 \$0 12/04/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26111                      7590                      09/04/2014  
**STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.**  
 1100 NEW YORK AVENUE, N.W.  
 WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$0	\$0	\$1780	\$0	12/04/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
SURYAWANSHI, SURESH	2118	713-002000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. <b>Use of a Customer Number is required.</b></p>	<p>2. For printing on the patent front page, list</p> <p>(1) The names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1</p> <p>(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2</p> <p>_____ 3</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_ (B) RESIDENCE: (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (<b>Please first reapply any previously paid issue fee shown above</b>)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	--

5. **Change in Entity Status** (from status indicated above)

Applicant certifying micro entity status. See 37 CFR 1.29

Applicant asserting small entity status. See 37 CFR 1.27

Applicant changing to regular undiscounted fee status.

**NOTE:** Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

**NOTE:** If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

**NOTE:** Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____	Date _____
Typed or printed name _____	Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Values: 13/118,122, 05/27/2011, James J. Fallon, 2855.004000B, 8978

26111 7590 09/04/2014
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SURYAWANSHI, SURESH

ART UNIT PAPER NUMBER

2118

DATE MAILED: 09/04/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

### Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



<b>Examiner-Initiated Interview Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2118	

All participants (applicant, applicant's representative, PTO personnel):

(1) SURESH SURYAWANSHI. (3)\_\_\_\_\_.

(2) Michael V. Messinger (Reg. No. 37,575). (4)\_\_\_\_\_.

Date of Interview: 26 August 2014.

Type:  Telephonic  Video Conference  
 Personal [copy given to:  applicant  applicant's representative]

Exhibit shown or demonstration conducted:  Yes  No.  
If Yes, brief description: \_\_\_\_\_.

Issues Discussed 101 112 102 103 Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 58.

Identification of prior art discussed: None.

Substance of Interview  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant agreed for an examiner's amendments to take care some minor corrections.

**Applicant recordation instructions:** It is not necessary for applicant to provide a separate record of the substance of interview.

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/SURESH SURYAWANSHI/ Primary Examiner, Art Unit 2118	
---	--

<b>Notice of Allowability</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2118	<b>AIA (First Inventor to File) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendments filed on 8/20/14.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
2.  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
3.  The allowed claim(s) is/are 1-4,6-17,19,20,23-30,33,37,39-48,51,55,57-66,69,73,75-84,87,91,93-102,105,109,111-120,123,127 and 129-157. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a)  All    b)  Some    \*c)  None of the:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has **THREE MONTHS FROM THE "MAILING DATE"** of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in **ABANDONMENT** of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
 including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment       |
| 2. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>8/20/14</u> | 6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material                     | 7. <input type="checkbox"/> Other _____.                                  |
| 4. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20140826</u> .                |   |

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2118

1. The present application is being examined under the pre-AIA first to invent provisions.

### DETAILED ACTION

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael V. Messinger (Reg. No. 37,575) on 8/26/14.

3. The application has been amended as follows:

In Claim:

I. claim 58, line 1,

- i. deleted "Currently Amended";
- ii. inserted after "(, -- Previously Presented) --.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SURESH SURYAWANSHI whose telephone number is (571)272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2118

<b>Examiner-Initiated Interview Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2118	

All participants (applicant, applicant's representative, PTO personnel):

(1) SURESH SURYAWANSHI. (3)\_\_\_\_\_.

(2) Michael V. Messinger (Reg. No. 37,575). (4)\_\_\_\_\_.

Date of Interview: 26 August 2014.

Type:  Telephonic  Video Conference  
 Personal [copy given to:  applicant  applicant's representative]

Exhibit shown or demonstration conducted:  Yes  No.  
If Yes, brief description: \_\_\_\_\_.

Issues Discussed 101 112 102 103 Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 58.

Identification of prior art discussed: None.

Substance of Interview  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant agreed for an examiner's amendments to take care some minor corrections.

**Applicant recordation instructions:** It is not necessary for applicant to provide a separate record of the substance of interview.

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/SURESH SURYAWANSHI/ Primary Examiner, Art Unit 2118	
---	--

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2118

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Tenth Supplemental Information Disclosure Statement**

*Mail Stop AF*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

Proceeding	Status
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Notice of Appeal filed 07/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	<i>Inter Partes</i> Reexamination Certificate issued 08/04/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Right of Appeal Notice mailed 06/10/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to reexaminations are listed as **NPL5-NPL8**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./



4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Appeal Terminated

Information Disclosure Statement

Listed on accompanying IDS Form PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Form based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but on or before payment of the Issue Fee. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

A copies of documents **NPL1-NPL8** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of the U.S. patents and patent application publications cited as documents **US1-US4** on the attached IDS Forms are submitted.

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Further, copies of documents **NPL9-NPL10** are not provided in accordance with the U.S. Patent and Trademark Office Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

Applicants submit herewith Office Actions from the following co-pending U.S. Patent Applications:

Document **NPL1** is a copy of a Notice of Allowance mailed June 25, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/251,453.

Document **NPL2** is a copy of a Final Office Action mailed June 27, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,933.

Document **NPL3** is a copy of a Notice of Allowance mailed July 8, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,926.

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Document **NPL4** is a copy of a Notice of Allowance mailed July 22, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/033,245.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Form, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

 (Reg. No. 65,211)  
FOR

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: 08/20/14

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

1883883\_1.DOCX

Atty. Dkt. No. 2855.004000B

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>TENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2118
				Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 14/251,453, mailed June 25, 2014; 8 pages.	
	NPL2	Copy of Final Office Action for U.S. Appl. No. 14/134,933, mailed June 27, 2014; 9 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 14/134,926, mailed July 8, 2014, 9 pages.	
	NPL4	Copy of Notice of Allowance for U.S. Appl. No. 14/033,245, mailed July 22, 2014, 13 pages.	
	NPL5	Right of Appeal Notice Under 37 C.F.R. § 1.953 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, mailed June 9, 2014, 14 pages.	
	NPL6	Right of Appeal Notice Under 37 C.F.R. § 1.953 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925 mailed June 10, 2014, 10 pages.	
	NPL7	Notice of Intent to Issue a Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed June 27, 2014, 7 pages.	
	NPL8	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed August 4, 2014, 4 pages.	
	NPL9	U.S. Patent Application No. 14/303,276, James J. FALLON, "Systems and Methods for Data Storage and Retrieval," filed June 12, 2014.	
	NPL10	U.S. Patent Application No. 14/305,692, James J. FALLON, "Systems and Methods for Data Storage and Retrieval," filed June 16, 2014.	

1883877\_1.DOCX

Examiner Signature	/Suresh Suryawanshi/	Date Considered	08/26/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./




UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 8978


<b>SERIAL NUMBER</b> 13/118,122	<b>FILING or 371(c) DATE</b> 05/27/2011 <b>RULE</b>	<b>CLASS</b> 713	<b>GROUP ART UNIT</b> 2118	<b>ATTORNEY DOCKET NO.</b> 2855.004000B	
<b>APPLICANTS</b> <b>INVENTORS</b> James J. Fallon, Armonk, NY; John Buck, Oceanside, NY; Paul F. Pickel, Bethpage, NY; Stephen J. McErlain, New York, NY; <b>** CONTINUING DATA *****</b> This application is a CON of 11/551,211 10/19/2006 PAT 8112619 which is a CON of 09/776,267 02/02/2001 PAT 7181608      Yes /SKS/ which claims benefit of 60/180,114 02/03/2000 <b>** FOREIGN APPLICATIONS *****</b> None /SKS/ <b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b> 06/10/2011					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input type="checkbox"/> No Verified and      /SURESH SURYAWANSHI/ Acknowledged      Examiner's Signature	<input type="checkbox"/> Met after Allowance Initials	<b>STATE OR COUNTRY</b> NY	<b>SHEETS DRAWINGS</b> 13	<b>TOTAL CLAIMS</b> 117 4-	<b>INDEPENDENT CLAIMS</b> 7 1-
<b>ADDRESS</b> STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 UNITED STATES					
<b>TITLE</b> SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS					
<b>FILING FEE RECEIVED</b> 11680	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

<b>Issue Classification</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115	

CPC					
Symbol				Type	Version
G06F		3	0613	F	2013-01-01
G06F		3	0638	I	2013-01-01
G06F		3	0658	I	2013-01-01
G06F		3	0676	I	2013-01-01
G06F		9	4401	I	2013-01-01
G06F		9	4406	I	2013-01-01
G06F		9	445	I	2013-01-01
H03M		7	30	I	2013-01-01
G06F		1	24	I	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version


NONE		<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	117	
/SURESH SURYAWANSHI/ Primary Examiner.Art Unit 2115	8/26/14	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	7B

<b>Issue Classification</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

US ORIGINAL CLASSIFICATION					INTERNATIONAL CLASSIFICATION								
CLASS		SUBCLASS			CLAIMED				NON-CLAIMED				
713		2			G	0	6	F	15 / 177 (2006.01.01)				
CROSS REFERENCE(S)					G	0	6	F	9 / 24 (2006.01.01)				
					G	0	6	F	12 / 00 (2006.01.01)				
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)												
713	1												
711	113												


NONE		<b>Total Claims Allowed:</b>	
		117	
(Assistant Examiner)	(Date)		
/SURESH SURYAWANSHI/ Primary Examiner. Art Unit 2115	8/26/14	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	7B



<b>Issue Classification</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input checked="" type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47									
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	19	23	35	45		67		89	77	111	93	133	115	155
2	2	20	24	36	46		68		90	78	112	94	134	116	156
3	3	21	25	37	47	51	69	64	91	79	113	95	135	117	157
4	4	22	26	38	48		70		92	80	114	96	136		
	5	23	27		49		71	65	93	81	115	97	137		
5	6	24	28		50		72	66	94	82	116	98	138		
6	7	25	29	39	51	52	73	67	95	83	117	99	139		
7	8	26	30		52		74	68	96	84	118	100	140		
8	9		31		53	53	75	69	97	85	119	101	141		
9	10		32		54	54	76	70	98	86	120	102	142		
10	11	27	33	40	55	55	77	71	99		121	103	143		
11	12		34		56	56	78	72	100		122	104	144		
12	13		35	41	57	57	79	73	101	87	123	105	145		
13	14		36	42	58	58	80	74	102		124	106	146		
14	15	28	37	43	59	59	81		103		125	107	147		
15	16		38	44	60	60	82		104		126	108	148		
16	17	29	39	45	61	61	83	75	105	88	127	109	149		
	18	30	40	46	62	62	84		106		128	110	150		
17	19	31	41	47	63		85		107	89	129	111	151		
18	20	32	42	48	64		86		108	90	130	112	152		
	21	33	43	49	65	63	87	76	109	91	131	113	153		
	22	34	44	50	66		88		110	92	132	114	154		


NONE		<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	117	
/SURESH SURYAWANSHI/ Primary Examiner. Art Unit 2115	8/26/14	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	7B

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014	08/26/2014	
1	1	✓	✓	=	=	✓	=	=	
2	2		✓	=	=	○	✓	=	
3	3		✓	=	=	○	✓	=	
4	4		✓	=	=	○	✓	=	
	5		✓	-	-	-	-	-	
5	6		✓	=	=	✓	✓	=	
6	7		✓	=	=	✓	=	=	
7	8		✓	=	=	✓	✓	=	
8	9		✓	=	=	✓	✓	=	
9	10		✓	=	=	✓	✓	=	
10	11		✓	=	=	✓	✓	=	
11	12		✓	=	=	✓	✓	=	
12	13		✓	=	=	✓	○	=	
13	14		✓	=	=	✓	=	=	
14	15			=	=	✓	=	=	
15	16			=	=	✓	=	=	
16	17			=	=	✓	=	=	
	18			=	=	✓	-	-	
17	19			=	=	✓	=	=	
18	20			=	=	✓	=	=	
	21			✓	-	-	-	-	
	22			=	=	○	-	-	
19	23			=	=	○	=	=	
20	24			=	=	○	✓	=	
21	25			=	=	✓	=	=	
22	26			=	=	✓	=	=	
23	27			=	=	✓	=	=	
24	28			=	=	✓	=	=	
25	29			=	=	✓	=	=	
26	30			=	=	✓	=	=	
	31			✓	-	-	-	-	
	32			✓	-	-	-	-	
27	33			=	=	✓	=	=	
	34			✓	-	-	-	-	
	35			✓	-	-	-	-	
	36			✓	-	-	-	-	

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014	08/26/2014			
28	37			=	=	✓	=	=			
	38			=	=	✓	-	-			
29	39			=	=	✓	=	=			
30	40			=	=	✓	=	=			
31	41			=	=	✓	=	=			
32	42			=	=	✓	=	=			
33	43			=	=	✓	=	=			
34	44			=	=	✓	=	=			
35	45			=	=	✓	=	=			
36	46			=	=	✓	=	=			
37	47			=	=	✓	=	=			
38	48			=	=	✓	=	=			
	49			✓	-	-	-	-			
	50			✓	-	-	-	-			
39	51			=	=	✓	O	=			
	52			✓	-	-	-	-			
	53			✓	-	-	-	-			
	54			✓	-	-	-	-			
40	55			=	=	✓	=	=			
	56			=	=	✓	-	-			
41	57			=	=	✓	O	=			
42	58			=	=	✓	O	=			
43	59			=	=	✓	O	=			
44	60			=	=	✓	O	=			
45	61			=	=	✓	O	=			
46	62			=	=	✓	O	=			
47	63			=	=	✓	=	=			
48	64			=	=	✓	=	=			
49	65			=	=	✓	=	=			
50	66			=	=	✓	=	=			
	67			✓	-	-	-	-			
	68			✓	-	-	-	-			
51	69			=	=	✓	=	=			
	70			✓	-	-	-	-			
	71			✓	-	-	-	-			
	72			✓	-	-	-	-			

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014	08/26/2014			
52	73			=	=	✓	=	=			
	74			=	=	✓	-	-			
53	75			=	=	✓	=	=			
54	76			=	=	✓	O	=			
55	77			=	=	✓	=	=			
56	78			=	=	✓	=	=			
57	79			=	=	✓	=	=			
58	80			=	=	✓	=	=			
59	81			=	=	✓	O	=			
60	82			=	=	✓	O	=			
61	83			=	=	✓	O	=			
62	84			=	=	✓	O	=			
	85			✓	-	-	-	-			
	86			✓	-	-	-	-			
63	87			=	=	✓	O	=			
	88			✓	-	-	-	-			
	89			✓	-	-	-	-			
	90			✓	-	-	-	-			
64	91			=	=	✓	O	=			
	92			=	=	✓	-	-			
65	93			=	=	✓	O	=			
66	94			=	=	✓	O	=			
67	95			=	=	✓	O	=			
68	96			=	=	✓	O	=			
69	97			=	=	✓	O	=			
70	98			=	=	✓	O	=			
71	99			=	=	✓	O	=			
72	100			=	=	✓	O	=			
73	101			=	=	✓	O	=			
74	102			=	=	✓	O	=			
	103			✓	-	-	-	-			
	104			✓	-	-	-	-			
75	105			=	=	✓	O	=			
	106			✓	-	-	-	-			
	107			✓	-	-	-	-			
	108			✓	-	-	-	-			

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014	08/26/2014			
76	109			=	=	✓	○	=			
	110			=	=	✓	-	-			
77	111			=	=	✓	○	=			
78	112			=	=	✓	○	=			
79	113			=	=	✓	○	=			
80	114			=	=	✓	○	=			
81	115			=	=	✓	○	=			
82	116			=	=	✓	○	=			
83	117			=	=	✓	=	=			
84	118			=	=	✓	=	=			
85	119			=	=	✓	=	=			
86	120			=	=	✓	=	=			
	121			✓	-	-	-	-			
	122			✓	-	-	-	-			
87	123			=	=	✓	=	=			
	124			✓	-	-	-	-			
	125			✓	-	-	-	-			
	126			✓	-	-	-	-			
88	127			=	=	✓	=	=			
	128			=	=	✓	-	-			
89	129			=	=	✓	=	=			
90	130			=	=	✓	=	=			
91	131			=	=	✓	=	=			
92	132			=	=	✓	=	=			
93	133			=	=	✓	=	=			
94	134			=	=	✓	=	=			
95	135						✓	=			
96	136						✓	=			
97	137						✓	=			
98	138						✓	=			
99	139						✓	=			
100	140						✓	=			
101	141						✓	=			
102	142						✓	=			
103	143						○	=			
104	144						○	=			

<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input checked="" type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47					
CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014	08/26/2014			
105	145						=	=			
106	146						=	=			
107	147						O	=			
108	148						O	=			
109	149						O	=			
110	150						=	=			
111	151						=	=			
112	152						O	=			
113	153						=	=			
114	154						O	=			
115	155						O	=			
116	156						=	=			
117	157						=	=			

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: FALLON <i>et al.</i>	Confirmation No.: 8978
Appl. No.: 13/118,122	Art Unit: 2115
Filed: May 27, 2011	Examiner: SURYAWANSHI, Suresh
For: <b>Systems and Methods for Accelerated Loading of Operating Systems and Application Programs</b>	Atty. Docket: 2855.004000B

**Amendment and Reply Under 37 C.F.R. § 1.116**

*Mail Stop AF*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

In reply to the Office Action dated June 18, 2014 ("Office Action"), Applicants submit the following Amendment and Remarks.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any additional fees required to continue prosecution or appeal of this application (including issue fee, fees for net addition of claims or forwarding to appeal) are hereby authorized to be charged to our Deposit Account No. 19-0036.

OK to enter.  
/SKS/  
8/29/14

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2118

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Tenth Supplemental Information Disclosure Statement**

*Mail Stop AF*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012



<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Order Remanding <i>Inter Partes</i> Reexamination Under 37 C.F.R. 41.77(d) to the Examiner mailed 05/29/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Notice of Appeal filed 07/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	<i>Inter Partes</i> Reexamination Certificate issued 08/04/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Right of Appeal Notice mailed 06/10/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Atty. Dkt. No. 2855.004000B

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to reexaminations are listed as **NPL5-NPL8**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014

Atty. Dkt. No. 2855.004000B

4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Appeal Terminated

Information Disclosure Statement

Listed on accompanying IDS Form PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Form based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

Atty. Dkt. No. 2855.004000B

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but on or before payment of the Issue Fee. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

A copies of documents **NPL1-NPL8** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of the U.S. patents and patent application publications cited as documents **US1-US4** on the attached IDS Forms are submitted.

Atty. Dkt. No. 2855.004000B

Further, copies of documents **NPL9-NPL10** are not provided in accordance with the U.S. Patent and Trademark Office Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

Applicants submit herewith Office Actions from the following co-pending U.S. Patent Applications:

Document **NPL1** is a copy of a Notice of Allowance mailed June 25, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/251,453.

Document **NPL2** is a copy of a Final Office Action mailed June 27, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,933.

Document **NPL3** is a copy of a Notice of Allowance mailed July 8, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,926.

Atty. Dkt. No. 2855.004000B

Document **NPL4** is a copy of a Notice of Allowance mailed July 22, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/033,245.

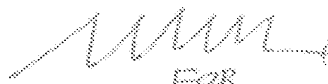
The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Form, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

 (Reg. No. 65,211)  
FOR

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: 08/20/14

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Atty. Dkt. No. 2855.004000B

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>TENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2118
				Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 14/251,453, mailed June 25, 2014; 8 pages.	
	NPL2	Copy of Final Office Action for U.S. Appl. No. 14/134,933, mailed June 27, 2014; 9 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 14/134,926, mailed July 8, 2014, 9 pages.	
	NPL4	Copy of Notice of Allowance for U.S. Appl. No. 14/033,245, mailed July 22, 2014, 13 pages.	
	NPL5	Right of Appeal Notice Under 37 C.F.R. § 1.953 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, mailed June 9, 2014, 14 pages.	
	NPL6	Right of Appeal Notice Under 37 C.F.R. § 1.953 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925 mailed June 10, 2014, 10 pages.	
	NPL7	Notice of Intent to Issue a Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed June 27, 2014, 7 pages.	
	NPL8	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed August 4, 2014, 4 pages.	
	NPL9	U.S. Patent Application No. 14/303,276, James J. FALLON, "Systems and Methods for Data Storage and Retrieval," filed June 12, 2014.	
	NPL10	U.S. Patent Application No. 14/305,692, James J. FALLON, "Systems and Methods for Data Storage and Retrieval," filed June 16, 2014.	

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Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



US007352300C1

(12) **INTER PARTES REEXAMINATION CERTIFICATE** (926th)

**United States Patent**

(10) **Number:** **US 7,352,300 C1**

**Fallon**

(45) **Certificate Issued:** **Aug. 4, 2014**

(54) **DATA COMPRESSION SYSTEMS AND METHODS**

(52) **U.S. Cl.**  
USPC ..... **341/51; 341/79**

(75) Inventor: **James J. Fallon**, Armonk, NY (US)

(58) **Field of Classification Search**  
None  
See application file for complete search history.

(73) Assignee: **Realtime Data, LLC**, New York, NY (US)

(56) **References Cited**

**Reexamination Request:**  
No. 95/001,924, Mar. 2, 2012

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/001,924, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

**Reexamination Certificate for:**  
Patent No.: **7,352,300**  
Issued: **Apr. 1, 2008**  
Appl. No.: **11/651,175**  
Filed: **Jan. 8, 2007**

*Primary Examiner* — Christina Y Leung

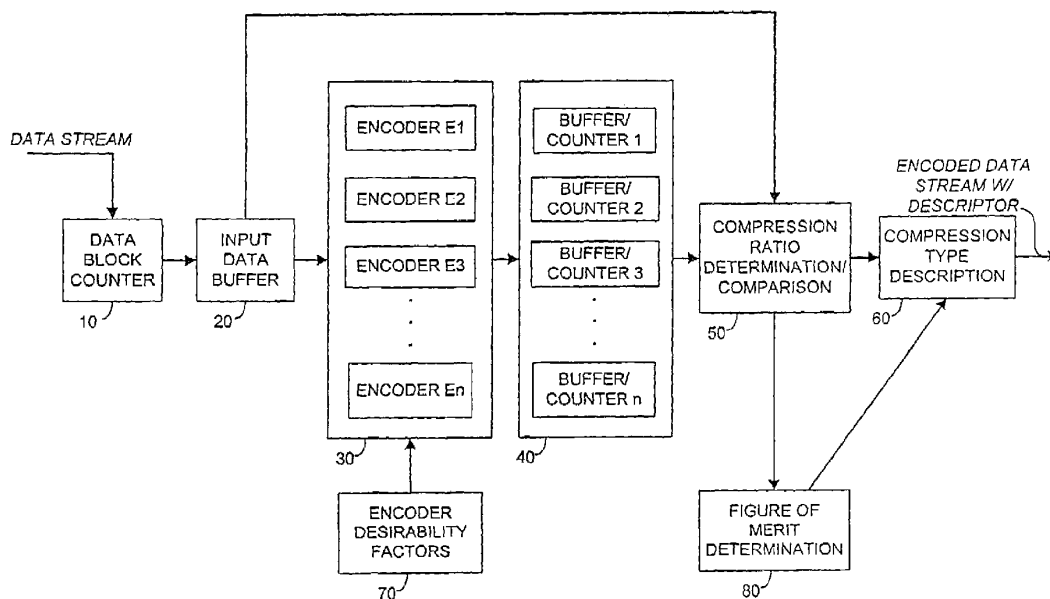
**Related U.S. Application Data**

(57) **ABSTRACT**

(63) Continuation of application No. 10/668,768, filed on Sep. 22, 2003, now Pat. No. 7,161,506, which is a continuation of application No. 10/016,355, filed on Oct. 29, 2001, now Pat. No. 6,624,761, which is a continuation-in-part of application No. 09/705,446, filed on Nov. 3, 2000, now Pat. No. 6,309,424, which is a continuation of application No. 09/210,491, filed on Dec. 11, 1998, now Pat. No. 6,195,024.

Systems and methods for providing fast and efficient data compression using a combination of content independent data compression and content dependent data compression. In one aspect, a method for compressing data comprises the steps of: analyzing a data block of an input data stream to identify a data type of the data block, the input data stream comprising a plurality of disparate data types; performing content dependent data compression on the data block, if the data type of the data block is identified; performing content independent data compression on the data block, if the data type of the data block is not identified.

(51) **Int. Cl.**  
**H03M 7/34** (2006.01)





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**INTER PARTES**  
**REEXAMINATION CERTIFICATE**  
**ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

**Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.**

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 23 and 46 is confirmed.

Claims 19, 24, 25, 28-30, 32, 33, 36, 42, 45, 47, 48, 52, 53, 55, 56 and 59 are cancelled.

New claims 66-104 are added and determined to be patentable.

Claims 1-18, 20-22, 26, 27, 31, 34, 35, 37-41, 43, 44, 49-51, 54, 57, 58 and 60-65 were not reexamined.

66. *A computer implemented method comprising:*  
*analyzing data within a data block to identify a data type of the data within said data block from a plurality of disparate data types;*  
*selecting resolution parameters;*  
*associating a first lossy compression encoder to a first one of said plurality of data types;*  
*associating a second lossy compression encoder to a second one of said plurality of data types;*  
*performing a first data compression, wherein said first data compression comprises compressing said data block with said first lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said first lossy compression encoder compresses said data block at said selected resolution parameters;*  
*performing a second data compression, wherein said second data compression comprises compressing said data block with said second lossy compression encoder if said data type is identified as said second one of said plurality of data types;*  
*outputting said data block in uncompressed form, if no data type is identified for said data block; and*  
*outputting said data block in compressed form, if said compressed data block is provided by said first data compression or said second data compression, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

67. *A computer implemented method comprising:*  
*analyzing data within a data block to identify a data type of the data within said data block from a plurality of disparate data types;*  
*selecting resolution parameters;*  
*associating a lossy compression encoder to a first one of said plurality of data types;*  
*associating a lossless compression encoder to a second one of said plurality of data types;*  
*performing a first data compression, wherein said first data compression comprises compressing said data block with said lossy compression encoder if said data type is identified as said first one of said plurality of data types,*

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*wherein said lossy compression encoder compresses said data block at said selected resolution parameters;*  
*performing a second data compression, wherein said second data compression comprises compressing said data block with said lossless compression encoder if said data type is identified as said second one of said plurality of data types;*  
*outputting said data block in uncompressed form, if no data type is identified for said data block; and*  
*outputting said data block in compressed form, if said compressed data block is provided by said first data compression or said second data compression, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

68. *The method of claim 19, further comprising appending a type descriptor to an encoded data block, wherein the type descriptor includes values corresponding to a plurality of encoding techniques that were applied to the data block in a specific or random order.*

69. *The method of claim 42, further comprising appending a type descriptor to an encoded data block, wherein the type descriptor includes values corresponding to a plurality of encoding techniques that were applied to the data block in a specific or random order.*

70. *The method of claim 66, further comprising associating a desirability factor to said second lossy encoder.*

71. *The method of claim 67, further comprising associating a desirability factor to said lossless encoder.*

72. *The computer implemented method of claim 66, wherein said data block is included in a data stream, a second data block is included in said data stream, a second data type is identified for said second data block, and said second data type is compressed with said second lossy compression encoder if said second data type is identified as said second one of said plurality of data types.*

73. *The computer implemented method of claim 66, wherein said second lossy encoder provides a compressed data block and a compression ratio for said compressed data block is determined.*

74. *The computer implemented method of claim 66, wherein said data block is provided in a data stream and a determination is made whether the data stream contains additional data to be processed.*

75. *The computer implemented method of claim 66, wherein said second data compression provides a compressed data block and appending a descriptor to the compressed data block that is representative of how said compressed data block was compressed.*

76. *The computer implemented method of claim 66, further comprising transmitting said data block in uncompressed form and appending a descriptor to the uncompressed data block that is indicative that no compression was performed on said data block.*

77. *The computer implemented method of claim 66, wherein said data block is a variable-size data block.*

78. *The computer implemented method of claim 66, further comprising counting the size of said data block.*

79. *The computer implemented method of claim 67, wherein said data block is included in a data stream, a second data block is included in said data stream, a second data type is identified for said second data block, and said second data type is compressed with said second lossy compression encoder if said second data type is identified as said second one of said plurality of data types.*

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80. The computer implemented method of claim 67, wherein said second lossy encoder provides a compressed data block and a compression ratio for said compressed data block is determined.

81. The computer implemented method of claim 67, wherein said data block is provided in a data stream and a determination is made whether the data stream contains additional data to be processed.

82. The computer implemented method of claim 67, wherein said second data compression provides a compressed data block and appending a descriptor to the compressed data block that is representative of how said compressed data block was compressed.

83. The computer implemented method of claim 67, further comprising transmitting said data block in uncompressed form and appending a descriptor to the uncompressed data block that is indicative that no compression was performed on said data block.

84. The computer implemented method of claim 67, wherein said data block is a variable-size data block.

85. The computer implemented method of claim 67, further comprising counting the size of said data block.

86. A computer implemented method comprising:  
analyzing, data within a data block to identify a data type of the data within said data block from a plurality of disparate data types;

selecting resolution parameters;

associating a first lossy compression encoder to a first one of said plurality of data types;

associating a second lossy compression encoder to a second one of said plurality of data types;

performing a first data compression, wherein said first data compression comprises compressing said data block with said first lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said first lossy compression encoder compresses said data block at said selected resolution parameters;

performing a second data compression, wherein said second data compression comprises compressing said data block with said second lossy compression encoder if said data type is identified as said second one of said plurality of data types;

outputting said data block in uncompressed form, if no data is identified for said data block; and

outputting said data block in compressed form, if said compressed data block is provided by said first data compression or said second data compression.

87. The computer implemented method of claim 86, wherein said data block is included in a data stream, a second data block is included in said data stream, a second data type is identified for said second data block, and said second data type is compressed with said second lossy compression encoder if said second data type is identified as said second one of said plurality of data types.

88. The computer implemented method of claim 86, wherein said second lossy encoder provides a compressed data block and a compression ratio for said compressed data block is determined.

89. The computer implemented method of claim 86, wherein said data block is provided in a data stream and a determination is made whether the data stream contains additional data to be processed.

90. The computer implemented method of claim 86, wherein said second data compression provides a compressed data block and appending a descriptor to the com-

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pressed data block that is representative of how said compressed data block was compressed.

91. The computer implemented method of claim 86, further comprising transmitting said data block in uncompressed form and appending a descriptor to the uncompressed data block that is indicative that no compression was performed on said data block.

92. The computer implemented method of claim 86, wherein said data block is a variable-size data block.

93. The computer implemented method of claim 86, further comprising counting the size of said data block.

94. A computer implemented method comprising:  
analyzing data within a data block to identify a data type of the data within said data block from a plurality of disparate data types:

selecting resolution parameters;

associating a lossy compression encoder to a first one of said plurality of data types;

associating a lossless compression encoder to a second one of said plurality of data types;

performing a first data compression, wherein said first data compression comprises compressing said data block with said loss compression encoder if said data type is identified as said first one of said plurality of data types,

wherein said lossy compression encoder compresses said data block at said selected resolution parameters;

performing a second data compression, wherein said second data compression comprises compressing said data block with said lossless compression encoder if said data type is identified as said second one of said plurality of data types;

outputting said data block in uncompressed form, if no data type is identified for said data block; and

outputting said data block in compressed form, if said compressed data block is provided by said first data compression or said second data compression.

95. The computer implemented method of claim 94, wherein said data block is included in a data stream, a second data block is included in said data stream, a second data type is identified for said second data block, and said second data type is compressed with said second lossy compression encoder if said second data type is identified as said second one of said plurality of data types.

96. The computer implemented method of claim 94, wherein said data block is provided in a data stream and a determination is made whether the data stream contains additional data to be processed.

97. The computer implemented method of claim 94, wherein said second data compression provides a compressed data block and appending a descriptor to the compressed data block that is representative of how said compressed data block was compressed.

98. The computer implemented method of claim 94, further comprising transmitting said data block in uncompressed form and appending a descriptor to the uncompressed data block that is indicative that no compression was performed on said data block.

99. The computer implemented method of claim 94, wherein said data block is a variable-size data block.

100. The computer implemented method of claim 94, further comprising counting the size of said data block.

101. A method comprising:  
analyzing a data block to identify a data type of said data block from a plurality of data types;

selecting resolution parameters;

associating a first lossy compression encoder to a first one of said plurality of data types;

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associating a second lossy compression encoder to a second one of said plurality of data types;  
 performing a first data compression, wherein said first data compression comprises compressing said data block with said first lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said first lossy compression encoder compresses said data block at said selected resolution parameters;  
 performing a second data compression, wherein said second data compression comprises compressing said data block with said second lossy compression encoder if said data type is identified as said second one of said plurality of data types; and  
 outputting said data block in uncompressed form, if no data type is identified for said data block.  
 102. A method comprising:  
 analyzing a data block to identify a data type of said data block from a plurality of data types;  
 selecting resolution parameters;  
 associating a lossy compression encoder to a first one of said plurality of data types;  
 associating a lossless compression encoder to a second one of said plurality of data types;  
 performing a first data compression, wherein said second data compression comprises compressing said data block with said lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said lossy compression encoder compresses said data block at said selected resolution parameters;  
 performing a second data compression, wherein said second data compression comprises compressing said data block with said lossless compression encoder if said data type is identified as said second one of said plurality of data types; and  
 outputting said data block in uncompressed form, if no data type is identified for said data block.  
 103. A method comprising:  
 analyzing a data block to identify a data type of said data block from a plurality of data types;  
 selecting resolution parameters;  
 associating a first lossy compression encoder to a first one of plurality of data types;

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associating a second lossy compression encoder to a second one of said plurality of data types;  
 performing a first data compression, wherein said first data compression comprises compressing said data block with said first lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said first lossy compression encoder compresses said data block at said selected resolution parameters;  
 performing a second data compression, wherein said second data compression comprises compressing said data block with said second lossy compression encoder if said data type is identified as said second one of said plurality of data types;  
 outputting said data block in uncompressed form, if no data type is identified for said data block; and  
 outputting said data block in compressed form, if said compressed data block is provided said first data compression or said second data compression.  
 104. A method comprising:  
 analyzing a data block to identify a data type of said data block from a plurality of data types;  
 selecting resolution parameters;  
 associating a lossy compression encoder to a first one of said plurality of data types;  
 associating a lossless compression encoder to a second one of said plurality of data types;  
 performing a first data compression, wherein said first data compression comprises compressing said data block with said lossy compression encoder if said data type is identified as said first one of said plurality of data types, wherein said lossy compression encoder compresses said data block at said selected resolution parameters;  
 performing a second data compression, wherein said second data compression comprises compressing said data block with said lossless compression encoder if said data type is identified as said second one of said plurality of data types;  
 outputting said data block in uncompressed form, if no data type is identified for said data block; and  
 outputting said data block in compressed form, if said compressed data block is provided by said first data compression or said second data compression.

\* \* \* \* \*

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Michael V. Messinger/Ann-Marie Fazekas			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	19920432
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/Ann-Marie Fazekas
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	20-AUG-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	18:20:37
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

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Payment Type	Credit Card
Payment was successfully received in RAM	\$180
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Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000B.pdf	21143871	yes	58
			47260348023bcc237896785d7c980b748a8103b		
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Miscellaneous Incoming Letter	1	2	
		After Final Consideration Program Request	3	3	
		Response After Final Action	4	4	
		Claims	5	37	
		Applicant Arguments/Remarks Made in an Amendment	38	50	
		Information Disclosure Statement (IDS) Form (SB08)	51	58	
<b>Warnings:</b>					
<b>Information:</b>					
2	Non Patent Literature	NPL1_NOA_14251453_06252014.pdf	430088	no	8
			5173c673f00116facd34126593c86635943b4476		
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3	Non Patent Literature	NPL2_FOA_14134933_06272014.pdf	329800	no	9
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4	Non Patent Literature	NPL3_NOA_14134926_07082014.pdf	453459	no	9
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<b>Information:</b>					
5	Non Patent Literature	NPL4_NOA_14033245_07222014.pdf	582277	no	13
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<b>Warnings:</b>					
<b>Information:</b>					
6	Non Patent Literature	NPL6_RAN_95001925_06102014.pdf	327226	no	10
			cd8e02d381577590f3d86d673c966c8fa97f5175		
<b>Warnings:</b>					
<b>Information:</b>					

7	Non Patent Literature	NPL7_NIIRC_95001924_06272014.pdf	230696 9c349dd7827b1624e49df8ef8bb792602448cdfd	no	7
<b>Warnings:</b>					
<b>Information:</b>					
8	Non Patent Literature	NPL8_Reexam_Cert_95001924_08042014.pdf	369303 868825f0ff77e0fdad258e1f8e025140fb041b9	no	4
<b>Warnings:</b>					
<b>Information:</b>					
9	Fee Worksheet (SB06)	fee-info.pdf	30521 2d5a268a3cec355b9d2514693c898ab7580240ce	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				23897241	
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					



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August 20, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2634**  
**Attn: Mail Stop AF**

Re: U.S. Utility Patent Application  
Appl. No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of \$180.00 to cover the Information Disclosure Statement fee;
2. Certification and Request for Consideration Under the After Final Consideration Pilot Program 2.0;
3. Amendment and Reply Under 37 C.F.R § 1.116;
4. Tenth Supplemental Information Disclosure Statement;
5. Form PTO/SB/08b (1 sheet) listing 10 documents (NPL1-NPL10); and
6. Copies of cited documents (NPL1-NPL8).

The above-listed documents are filed electronically through EFS-Web.

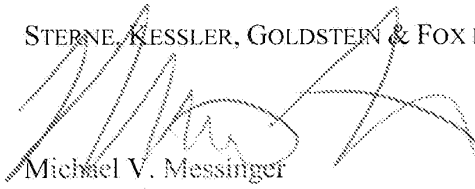
In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
August 20, 2014  
Page 2

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

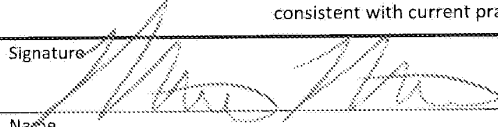
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicant  
Registration No. 37,575

MVM/aff  
Enclosures

1884960\_1

<b>CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0</b>		
Practitioner Docket No.: <b>2855.004000B</b>	Application No.: <b>13/118,122</b>	Filing Date: <b>May 27, 2011</b>
First Named Inventor: <b>James J. FALLON</b>	Title: <b>Systems and Methods for Accelerated Loading of Operating Systems and Application Programs</b>	
<p>APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.</p> <ol style="list-style-type: none"> <li>1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (e.g., a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).</li> <li>2. The above-identified application contains an outstanding final rejection.</li> <li>3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.</li> <li>4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.</li> <li>5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.</li> <li>6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).</li> <li>7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, e.g., extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]</li> <li>8. By filing this certification and request, applicant acknowledges the following:               <ul style="list-style-type: none"> <li>• Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.</li> <li>• The examiner will verify that the AFCP 2.0 submission is compliant, i.e., that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:                   <ul style="list-style-type: none"> <li>○ The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, e.g., by mailing an advisory action.</li> <li>○ If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.                       <ul style="list-style-type: none"> <li>▪ The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.</li> <li>▪ If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.</li> </ul> </li> </ul> </li> </ul> </li> </ol>		
Signature: 	Date: <b>August 29, 2011</b>	
Name (Print/Typed) <b>Michael V. Messinger</b>	Practitioner Registration No. <b>37,575</b>	
<p><i>Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.</i></p>		
<p><input checked="" type="checkbox"/> * Total of <u>1</u> forms are submitted.</p>		

1884968

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment and Reply Under 37 C.F.R. § 1.116**

*Mail Stop AF*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

In reply to the Office Action dated June 18, 2014 (“Office Action”), Applicants submit the following Amendment and Remarks.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any additional fees required to continue prosecution or appeal of this application (including issue fee, fees for net addition of claims or forwarding to appeal) are hereby authorized to be charged to our Deposit Account No. 19-0036.

*Amendments to the Claims*

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, the method comprising:

loading a portion of boot data in a compressed form that is associated with a portion of a boot data list for booting the computer system into a memory;

accessing the loaded portion of the boot data in the compressed form from the memory;

decompressing the accessed portion of the boot data in the compressed form at a rate that decreases a boot time of the operating system relative to loading the operating system utilizing boot data in an uncompressed form; and

updating the boot data list,

wherein the decompressed portion of ~~decompressed~~ boot data comprises [[:]] a portion of the operating system.

2. (Currently Amended) The method of claim 1, wherein the updating comprises:

associating a ~~second portion of~~ additional boot data with the boot data list.

3. (Currently Amended) The method of claim 1, wherein the updating comprises:

removing an association of a ~~second portion of~~ additional boot data that is associated with the boot data list from the boot data list.

4. (Currently Amended) The method of claim 1, wherein the updating comprises:

associating a ~~second portion of~~ additional boot data with the boot data list; and  
compressing a portion of the ~~second portion of~~ additional boot data.

5. (Cancelled)

6. (Currently Amended) A method for booting a computer system, the method comprising:

storing boot data in a compressed form that is associated with a portion of a boot data list in a first memory;

loading the stored compressed boot data from the first memory;

accessing the loaded compressed boot data;

decompressing the accessed compressed boot data;  
utilizing the decompressed boot data to at least partially boot the computer system; and  
updating the boot data list,  
wherein the loading, the accessing, and the decompressing occur within a period of time which is less than a time to access the boot data from the first memory if the boot data was stored in the first memory in an uncompressed form.

7. (Currently Amended) A system, comprising:

a processor; and

a first memory; and

a second memory configured to store boot data in a compressed form for booting the system and a logic code associated with the processor, [[,]]

wherein the processor is configured:

to load a portion of the boot data in the compressed form that is associated with a boot data list used for booting the system into the first memory,

to access the loaded portion of the boot data in the compressed form,

to decompress the accessed portion of the boot data in the compressed form at a rate that decreases a boot time of the system relative to booting the system with uncompressed boot data, and

to update the boot data list.

8. (Currently Amended) The system of claim 7, further comprising:

a data compression engine, coupled to the second memory, configured to compress the portion of the boot data to provide the portion of the boot data in the compressed form; and

a data compression encoder, coupled to the data compression engine, configured to compress ~~a second portion of~~ additional boot data, the ~~second portion of~~ additional boot data not being associated with the boot data list.

9. (Currently Amended) A method of loading an operating system for booting a computer system, comprising:

storing a ~~first~~ portion of the operating system in a compressed form in a first memory;



loading the ~~first~~ portion of the operating system from the first memory to a second memory, the ~~first~~ portion of the operating system being associated with a boot data list;

accessing the ~~first~~ loaded portion of the operating system from the second memory in the compressed form;

decompressing the accessed ~~first~~ portion of the operating system to provide a decompressed ~~first~~ portion of the operating system;

utilizing the decompressed ~~first~~ portion of the operating system to at least partially boot the computer system; and

updating the boot data list,

wherein the ~~first~~ portion of the operating system is accessed and decompressed at a rate that is faster than accessing the loaded ~~first~~ portion of the operating system from the first memory if the ~~first~~ portion of the operating system was to be stored in the first memory in an uncompressed form.

10. (Currently Amended) The method of claim 9, further comprising:

compressing ~~a second~~ an additional portion of the operating system that is not associated with the boot data list; and

storing the ~~second~~ additional portion of the operating system in the first memory,  
and

wherein said utilizing comprises:

utilizing the stored ~~second~~ additional portion of the operating system to at  
least further partially boot the computer system.

11. (Currently Amended) The method of claim 10, wherein the compressing  
comprises:

compressing the ~~second~~ additional portion of the operating system with a data  
compression encoder.

12. (Currently Amended) A method for providing accelerated loading of an  
operating system in a computer system, comprising:

loading boot data in a compressed form that is associated with a boot data list  
from a ~~non-volatile~~ boot device into a memory upon initialization of the computer  
system;

accessing the loaded boot data in the compressed form from the memory;

decompressing the accessed boot data in the compressed form at a rate that decreases a time to load the operating system relative to ~~a second time to loading~~ the operating system with boot data in an uncompressed form;

utilizing the decompressed boot data to load at least a portion the operating system for the computer system; and

updating the boot data list.

13. (Currently Amended) The method of claim 12, further comprising:

compressing boot data that is not associated with ~~[[a]]~~ the boot data list with a data compression encoder.

14. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in a compressed form that is associated with a boot data list from a boot device;

accessing the loaded boot data in the compressed form;

decompressing the accessed boot data in the compressed form at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in an uncompressed form; and

updating the boot data list.

15. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein a portion of the boot data is in a compressed form and is associated with a boot data list;

loading the boot data into a memory; and

servicing a request for the boot data from the computer system to access the loaded compressed boot data and to decompress the accessed compressed boot data at a rate that decreases a boot time of the operating system relative to loading the operating system utilizing the boot data in an uncompressed form; and

updating the boot data list.

16. (Previously Presented) The method of claim 15, wherein the boot data comprises:

a program code associated with the operating system.

17. (Previously Presented) The method of claim 15, wherein the operating system comprises:

a plurality of files.

18. (Cancelled)

19. (Previously Presented) The method of claim 15, wherein the boot data comprises:

a program code associated with the operating system and an application program.

20. (Previously Presented) The method of claim 19, wherein the application program comprises:

a plurality of files.

21.-22 (Cancelled)

23. (Currently Amended) The method of claim 15, wherein the ~~servicing~~ comprises: request for the boot data comprises:

a ~~servicing the~~ request to access boot data that is not associated with the boot data list, and wherein the updating comprises:

associating the accessed boot data that is not associated with the boot data list to the boot data list.

24. (Currently Amended) The method of claim 15, ~~wherein a second portion of the boot data that is associated with the boot data list is not accessed, and~~ wherein the updating comprises:

disassociating ~~the second portion of the~~ non-accessed boot data from the boot data list.

25. (Previously Presented) The method of claim 15, further comprising:  
maintaining the boot data list.

26. (Previously Presented) The method of claim 15, wherein the accessing comprises:

accessing the boot data from a non-volatile memory.

27. (Previously Presented) The method of claim 1, wherein the portion of the boot data in the compressed form represents a plurality of files.

28. (Previously Presented) The method of claim 1, wherein the portion of the boot data in the compressed form comprises:

a program code associated with the operating system.

29. (Previously Presented) The method of claim 1, further comprising:

compressing the portion of the boot data with a compression encoder to provide the portion of the boot data in the compressed form.

30. (Previously Presented) The method of claim 1, wherein the decompressing comprises:

decompressing the accessed portion of the boot data in the compressed form utilizing a decompression decoder.

31. – 32. (Cancelled)

33. (Previously Presented) The method of claim 1, wherein the memory comprises:

a physical memory.

34. – 36. (Cancelled)

37. (Previously Presented) The method of claim 1, wherein the operating system comprises:

a plurality of files.

38. (Cancelled)

39. (Previously Presented) The method of claim 1, wherein the boot data comprises:

a program code associated with the operating system and an application program.

40. (Previously Presented) The method of claim 39, wherein the application program comprises:

a plurality of files.

41. (Previously Presented) The method of claim 1, wherein the accessing comprises:



accessing the loaded portion of the boot data in the compressed form via direct memory access.

42. (Previously Presented) The method of claim 1, wherein a form of dictionary encoding was utilized to encode the portion of the boot data in the compressed form.

43. (Previously Presented) The method of claim 1, wherein Lempel-Ziv encoding was utilized to encode the portion of the boot data in the compressed form.

44. (Currently Amended) The method of claim 1, wherein a plurality of encoders were utilized to encode the portion of the boot data in the compressed form.

45. (Previously Presented) The method of claim 6, wherein the compressed boot data represents a plurality of files.

46. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises:

a program code associated with an operating system of the computer system.

47. (Currently Amended) The method of claim 6, further comprising:

compressing the boot data to provide the ~~compressed~~ boot data in the compressed form.

48. (Currently Amended) The method of claim 6, wherein the decompressing

comprises:

decompressing the accessed compressed boot data with a decompression decoder.

49. – 50. (Cancelled)

51. (Currently Amended) The method of claim 6, wherein the loading

comprises:

loading the stored compressed boot data from the first memory to a second memory, wherein the second memory comprises:

a physical memory.

52. – 54. (Cancelled)

55. (Previously Presented) The method of claim 46, wherein the operating system comprises:

a plurality of files.

56. (Cancelled)

57. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises:

a program code associated with an operating system of the computer system and an application program.

58. (Currently Amended) The method of claim 57, wherein the application program comprises:

a plurality of files.

59. (Previously Presented) The method of claim 6, wherein the accessing comprises:

accessing the loaded compressed boot data via direct memory access.

60. (Previously Presented) The method of claim 6, wherein a form of dictionary encoding was utilized to encode the compressed boot data.

61. (Previously Presented) The method of claim 6, wherein Lempel-Ziv encoding was utilized to encode the compressed boot data.

62. (Previously Presented) The method of claim 6, wherein a plurality of encoders were utilized to encode the compressed boot data.

63. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form represents a plurality of files.

64. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form comprises:

a program code associated with an operating system.

65. (Previously Presented) The system of claim 7, further comprising:  
an encoder configured to compress the boot data to provide the boot data in the compressed form.

66. (Previously Presented) The system of claim 7, further comprising:  
  
a decoder configured to decompress the boot data in the compressed form.

67. – 68. (Cancelled)

69. (Previously Presented) The system of claim 7, wherein the first memory  
comprises:

a physical memory.

70. – 72. (Cancelled)

73. (Previously Presented) The system of claim 7, wherein the boot data in  
the compressed form comprises:

a plurality of files.

74. (Cancelled)

75. (Previously Presented) The system of claim 7, wherein the boot data in the compressed form comprises:

a program code associated with an operating system of the system and an application program.

76. (Currently Amended) The system of claim ~~[[74]]~~ 75, wherein the application program comprises:

a plurality of files.

77. (Currently Amended) The system of claim 7, wherein the processor is further configured to access the loaded portion of the boot data in the compressed form from the first memory via direct memory access.

78. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize a form of dictionary encoding to encode a portion of the boot data to provide the portion of the boot data in the compressed form.

79. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode a portion of the boot data to provide the portion of the boot data in the compressed form.

80. (Previously Presented) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in the compressed form.

81. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form represents a plurality of files.

82. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form comprises:  
program code associated with the operating system.

83. (Currently Amended) The method of claim 9, further comprising:  
compressing a ~~first~~ portion of the operating system to provide the ~~first~~ portion of the operating system in the compressed form.

84. (Previously Presented) The method of claim 9, wherein the decompressing the accessed first portion comprise:

decompressing the accessed first portion with a decompression decoder.

85. – 86. (Cancelled)

87. (Currently Amended) The method of claim 9, wherein the ~~first~~ second memory comprises:

a physical memory.

88. – 90. (Cancelled)

91. (Previously Presented) The method of claim 9, wherein the operating system comprises:

a plurality of files.

92. (Cancelled)



93. (Previously Presented) The method of claim 9, wherein the operating system in the compressed form comprises:

a program code associated with the operating system and an application program.

94. (Previously Presented) The method of claim 93, wherein the application program comprises:

a plurality of files.

95. (Previously Presented) The method of claim 9, wherein the accessing comprises:

accessing the loaded first portion from the second memory via direct memory access.

96. (Previously Presented) The method of claim 9, wherein a form of dictionary encoding was utilized to encode the operating system in the compressed form.

97. (Previously Presented) The method of claim 9, wherein Lempel-Ziv encoding was utilized to encode the operating system in the compressed form.

98. (Previously Presented) The method of claim 9, wherein a plurality of encoders were utilized to encode the operating system in the compressed form.

99. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form represents a plurality of files.

100. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

101. (Currently Amended) The method of claim 12, further comprising:  
compressing the boot data to provide the boot data in the compressed form.

102. (Previously Presented) The method of claim 12, wherein the decompressing comprises:

decompressing the boot data in the compressed form utilizing a decompression decoder.

103. – 104. (Cancelled)

105. (Previously Presented) The method of claim 12, wherein the memory comprises:

a physical memory.

106. – 108. (Cancelled)

109. (Previously Presented) The method of claim 12, wherein the operating system comprises:

a plurality of files.

110. (Cancelled)

111. (Previously Presented) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with the operating system and an application program.

112. (Previously Presented) The method of claim 111, wherein the application program comprises:

a plurality of files.

113. (Previously Presented) The method of claim 12, wherein the accessing comprises:

accessing the boot data in the compressed form from the memory via direct memory access.

114. (Previously Presented) The method of claim 12, wherein a form of dictionary encoding was utilized to encode the boot data in the compressed form.

115. (Previously Presented) The method of claim 12, wherein Lempel-Ziv encoding [was utilized to encode the boot data in the compressed form.

116. (Previously Presented) The method of claim 12, wherein a plurality of encoders were utilized to encode the boot data in compressed form.

117. (Previously Presented) The method of claim 14, wherein the boot data in the compressed form represents a plurality of files.

118. (Previously Presented) The method of claim 14, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

119. (Currently Amended) The method of claim 14, further comprising:

compressing the boot data to provide the compressed boot data.

120. (Previously Presented) The method of claim 14, wherein the decompressing comprises:

decompressing the compressed boot data with a decompression decoder.

121. – 122. (Cancelled)

123. (Previously Presented) The method of claim 14, wherein the memory comprises:

a physical memory.

124. – 126. (Cancelled)

127. (Currently Amended) The method of claim 14, wherein the operating system ~~is comprised of~~ comprises:

a plurality of files.

128. (Cancelled)

129. (Previously Presented) The method of claim 14, wherein the boot data in the compressed form comprises:

a program code associated with a combination of the operating system and application program.

130. (Currently Amended) The method of claim 129, wherein the application program ~~is comprised of~~ comprises:

a plurality of files.

131. (Previously Presented) The method of claim 14, wherein the accessing comprises:

accessing the loaded boot data in the compressed form via direct memory access.

132. (Previously Presented) The method of claim 14, wherein a form of dictionary encoding was utilized to encode the compressed boot data.

133. (Previously Presented) The method of claim 14, wherein Lempel-Ziv encoding was utilized to encode the compressed boot data.

134. (Previously Presented) The method of claim 14, wherein a plurality of encoders were utilized to encode the compressed boot data.

135. (Currently Amended) The method of claim 1, further comprising:  
accessing a ~~second portion of~~ additional boot data that is not associated with the boot data list, and wherein the updating comprises:

associating the ~~second portion of~~ additional boot data with the boot data list.

136. (Currently Amended) The method of claim 1, ~~wherein a second portion of the boot data that is associated with the boot data list is not accessed,~~ and wherein the updating comprises:

disassociating the ~~second portion of~~ non-accessed boot data from the boot data list.

137. (Currently Amended) The method of claim 6, further comprising:  
accessing a ~~second~~ additional compressed boot data that is not associated with the  
boot data list, and wherein the updating comprises:

associating the ~~second~~ additional compressed boot data with the boot data list.

138 (Currently Amended) The method of claim 6, ~~wherein second boot data  
that is associated with the boot data list is not accessed, and~~ wherein the updating  
comprises:

disassociating the ~~second~~ non-accessed boot data from the boot data list.

139. (Currently Amended) The system of claim 7, wherein the processor is  
further configured:

to access a ~~second portion of the~~ additional boot data that is not associated with  
the boot data list, and

to associate ~~the second portion of the~~ additional boot data with the boot data list.



140. (Currently Amended) The system of claim 7, ~~wherein a second portion of the boot data in that is associated with the boot data list is not accessed by the processor, and wherein the processor is further configured:~~

to disassociate ~~the second~~ non-accessed boot data from the boot data list.

141. (Currently Amended) The method of claim 9, further comprising:

accessing ~~a second~~ an additional of the operating system that is not associated with the boot data list, and wherein the updating comprises:

associating the ~~second~~ additional portion of the operating system with the boot data list.

142. (Currently Amended) The method of claim 9, ~~wherein a second portion of the operating system that is associated with the boot data list is not accessed from the memory, and wherein the updating comprises:~~

disassociating ~~the second~~ a non-accessed portion of the operating system from the boot data list.

143. (Currently Amended) The method of claim 12, further comprising:

accessing ~~second~~ additional boot data that is not associated with the boot data list,  
and wherein the updating comprises:

associating the ~~second~~ additional boot data with the boot data list.

144. (Currently Amended) The method of claim 12, ~~wherein second boot data that is associated with the boot data list is not accessed from the memory, and~~ wherein the updating comprises:

disassociating ~~the second~~ non-accessed boot data from the boot data list.

145. (Currently Amended) The method of claim 14, further comprising:  
accessing ~~second~~ additional boot data that is not associated with the boot data list,  
and wherein the updating comprises:

associating the ~~second~~ additional boot data with the boot data list.

146. (Currently Amended) The method of claim 14, ~~wherein second boot data that is associated with the boot data list is not accessed, and~~ wherein the updating comprises:

disassociating ~~the second~~ non-accessed boot data from the boot data list.

147. (Previously Presented) The method of claim 2, further comprising:  
storing the updated boot list in a non-volatile memory.

148. (Currently Amended) The method of claim 2, further comprising:  
compressing at least a portion of the ~~second portion of~~ additional boot data.

149. (Currently Amended) The method of claim 148, further comprising:  
storing the compressed ~~second portion of~~ additional boot data.

150. (Previously Presented) The method of claim 1, wherein a plurality of data  
compression encoders were utilized to encode the portion of the boot data in the  
compressed form.

151. (Previously Presented) The method of claim 1, wherein the updating  
comprises:  
updating the boot data list in response to the accessing.

152. (Previously Presented) The method of claim 6, wherein the updating  
comprises:

updating the boot data list in response to the utilizing.

153. (Previously Presented) The system of claim 7, wherein the processor is configured to update the boot data list based upon the accessed portion of the boot data.

154. (Previously Presented) The method of claim 9, wherein the updating comprises:

updating the boot data list in response to the accessing or the utilizing.

155. (Previously Presented) The method of claim 12, wherein the updating comprises:

updating the boot data list in response to the accessing or the utilizing.

156. (Previously Presented) The method of claim 14, wherein the updating comprises:

updating the boot data list in response to the accessing.

157. (Previously Presented) The method of claim 15, wherein the updating comprises:

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updating the boot data list in response to the servicing.

Atty. Dkt. No. 2855.004000B

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-4, 6-17, 19, 20, 23-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73, 75-84, 87, 91, 93-102, 105, 109, 111-120, 123, 127, 129-157 are pending in the application, with claims 1, 6, 7, 9, 12, 14, and 15 being the independent claims. Claims 1-4, 6-13, 15, 23, 24, 44, 47, 48, 51, 58, 76, 77, 83, 87, 101, 119, 127, 130, 135-146, 148, and 149 are sought to be amended. Claims 5, 18, 22, 31, 32, 34-36, 38, 49, 50, 52-54, 56, 68, 70-72, 74, 85, 86, 88-90, 92, 103, 104, 106-108, 10, 121, 122, 124-126, and 128 were previously sought to be canceled without prejudice to or disclaimer of the subject matter therein. Applicants reserve the right to prosecute similar or broader claims, with respect to the cancelled and/or amended claims, in the future. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn. Throughout the Remarks, Applicants remind the Examiner that the claims are given their broadest reasonable meaning in view of the specification, and any paraphrasing of the claim features is not to be interpreted as reading any features into, or characterizing of, the claims.

***Statement of Substance of Interview***

Pursuant to 37 C.F.R. § 1.133, Applicants provide the following statement of substance of the interview. Applicants express their appreciation to Examiner Suresh

Suryawanshi for the courtesy of a first telephonic interview with Applicants' representative, Michael R. Malek (Reg. No.: 65,211), on June 24, 2014 and a second telephonic interview with Applicants' representative on July 23, 2014. During the first telephonic interview, the Examiner indicated that the Office Action is a final Office Action. During the second telephonic interview, Applicants' representative and the Examiner discussed the rejections of claims 2-4, 6, 8, 9, 10, 11, 12, 135, 137, 139, 140, 141, 142, 148, and 149 under 35 U.S.C. § 112, first paragraph. A first agreement was reached that the amendments to claims 2-4, 8, 10, 11, 12, 24, 135, 137, 139, 141, 148, and 149 presented herewith should overcome these rejections. A second agreement was reached that claims 6 and 9 as presented in the Amendment and Reply Under 37 C.F.R. §1.111 that was filed on May 6, 2014 satisfy the requirements of 35 U.S.C. § 112, first paragraph.

***Claim Objections***

Claims 74 and 76 stand objected to because of various alleged informalities. Without acquiescing to the merits of this allegation, Applicants have amended claims 74 and 76 to accommodate the Examiner's objections. Accordingly, Applicants respectfully request the objection to claims 74 and 76 be reconsidered and withdrawn.

***Rejections under 35 U.S.C. § 112***

**Claims 2-4, 8, 24, 135-136, 139-140, and 148-149**

Claims 2-4, 8, 24, 135-136, 139-140, and 148-149 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of "a

second portion of boot data” that was previously recited by claims 2-4, 8, 24, 135-136, 139-140, and 148-149 “is not disclosed in the provided specification anywhere.” (Office Action, p. 3). Although Applicants believe these features are disclosed in the Specification as filed on May 27, 2011 (“Specification”), Applicants have amended claims 2-4, 8, 24, 135-136, 139-140, and 148-149 to accommodate the Examiner’s rejection without acquiescing to the merits of this allegation and for the sole purpose of advancing prosecution of this Application.

As discussed in the Statement of Substance of Interview above, the Examiner has agreed that the amendment to claims 2-4, 8, 24, 135, 139, and 148-149 presented herewith overcome the rejections of these claims under 35 U.S.C. § 112, first paragraph. Additionally, Applicants believe at least the features of “*disassociating non-accessed boot data*” that is presently recited by claim 24 and analogous features that are presently recited by claims 136 and 140 are fully set forth in the words, structures, figures, diagrams, and formulas of the Specification. As a non-limiting example, Applicant respectfully directs the Examiner to ¶ [0016] of the Specification that provides, with emphasis added:

[0016] In another aspect, the method for accelerated loading of an operating system comprises updating the list of boot data during the boot process. The step of updating comprises adding to the list any boot data requested by the computer system not previously stored in the list and/or removing from the list any boot data previously stored in the list and not requested by the computer system.

As another non-limiting example, Applicant respectfully directs the Examiner to ¶ [0109] of the Specification that provides, with emphasis added:

[0109] Further, during the boot process, if no request is made by the host computer for a data block that was pre-loaded into the local memory of the data storage controller (affirmative result in



step 84), then the boot data list will be updated by removing the non-requested data block from the list (step 85). Thereafter, upon the next boot sequence, the data storage controller will not pre-load that data into local memory.

As a further non-limiting example, Applicant respectfully directs the Examiner to ¶ [0114] of the Specification that provides, with emphasis added:

[0114] Then, referring to Fig. 8b, upon each subsequent launch of the application (affirmative result in step 95), the data storage controller would retrieve and read the stored list (step 96) and then proceed to preload the application data specified on the list (i.e., the data associated with the expected data requests) into the onboard cache memory (step 97). During the application launch process, the data storage controller will receive requests for application data (step 98). If the host computer issues a request for application data that is pre-loaded in the local memory of the data storage controller (affirmative result in step 99), the request is immediately serviced using the preloaded data (step 100). If the host computer issues a request for application data that is not preloaded in the local memory of the data storage controller (negative result in step 99), the controller will retrieve the requested data from the hard disk memory, store the data in the local memory, and then deliver the requested application data to the computer bus (step 101). In addition, the data storage controller would update the application data list by recording any changes in the actual data requests as compared to the expected data requests already stored in the list (step 102).

As a yet further non-limiting example, Applicant respectfully directs the Examiner to ¶ [0115] of the Specification that provides, with emphasis added:

[0115] Further, during the launch process, if no request is made by the host computer for a data block that was pre-loaded into the local memory of the data storage controller (affirmative result in step 103), then the application data list will be updated by removing the non-requested data block from the list (step 104). Thereafter, upon the next launch sequence for the given application, the data storage controller will not pre-load that data into local memory.

These aforementioned features of claims 24, 136, and 140 are not to be construed solely based upon this aforementioned passage in the Specification. Applicants reserve the right

to demonstrate that these aforementioned features of claims 24, 136, and 140 can be construed based upon different passages in the Specification in the future.

Accordingly, Applicants respectfully request the rejection to claims 2-4, 8, 24, 135-136, 139-140, and 148-149 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claims 6 and 9

Claims 6 and 9 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of “a first memory” that was previously recited by claims 6 and 9 “is not disclosed in the provided specification anywhere.” (Office Action, p. 4). Although the Examiner agreed that these aforementioned features of claims 6 and 9 comply with 35 U.S.C. § 112, first paragraph, Applicants provide the Examiner with citations to the Specification as per his request.

According to the Specification, the “data storage controller can proceed to pre-load the portions of the computer operating system from the boot device (e.g., hard disk) into the on-board cache memory.” (Specification, ¶ [0102]). Additionally, “if the [data] was stored in compressed format on the boot device, the data will be decompressed”. (Specification, ¶ [0108]). These passages of the Specification disclose “*storing boot data in a compressed form associated with a portion of a boot data list in a first memory*”. One of ordinary skill in the art would recognize the “boot device (e.g., hard disk)” as being an example of “*a first memory*” as recited by claims 6 and 9 are sufficient to satisfy 35 U.S.C. § 112, first paragraph. Although Applicants have provided specific citations to the Specification, Applicants reserve the right to demonstrate that these

aforementioned features of claims 6 and 9 are fully supported elsewhere in the Specification in the future.

Accordingly, Applicants respectfully request the rejection to claims 6 and 9 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claim 9

Claim 9 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of “a second memory” that was previously recited by claims 6 and 9 “is not disclosed in the provided specification anywhere.” (Office Action, p. 5). Although the Examiner agreed that these aforementioned features of claim 9 comply with 35 U.S.C. § 112, first paragraph, Applicants provide the Examiner with citations to the Specification as per his request.

According to the Specification, the “data storage controller can proceed to pre-load the portions of the computer operating system from the boot device (e.g., hard disk) into the on-board cache memory.” (Specification, ¶ [0102]). This passage of the Specification discloses “*loading the first portion of the operating system from the first memory to a second memory.*” One of ordinary skill in the art would recognize the “on-board cache memory” as being an example of “*a second memory*” as recited by claim 9 are sufficient to satisfy 35 U.S.C. § 112, first paragraph. Although Applicants have provided specific citations to the Specification, Applicants reserve the right to demonstrate that these aforementioned features of claim 9 are fully supported elsewhere in the Specification in the future.

Accordingly, Applicants respectfully request the rejection to claim 9 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claims 10-11 and 141-142

Claims 10-11 and 141-142 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements.

Specifically, the Office Action alleges the features of “a second portion of the operating system” that was previously recited by claims 10-11 and 141-142 “is not disclosed in the provided specification anywhere.” (Office Action, p. 6). Although Applicants believe these features are disclosed in the Specification, Applicants have amended claims 10-11 and 141-142 to accommodate the Examiner’s rejection without acquiescing to the merits of this allegation and for the sole purpose of advancing prosecution of this Application. As discussed in the Statement of Substance of Interview above, the Examiner has agreed that the amendment to claims 10-11 and 141 presented herewith overcome the rejections of these claims under 35 U.S.C. § 112, first paragraph.

Additionally, Applicants believe at least the feature of “*disassociating a non-accessed portion of the operating system*” is fully set forth in the words, structures, figures, diagrams, and formulas of the Specification. As a non-limiting example, Applicant respectfully directs the Examiner to ¶ [0016] of the Specification that provides, with emphasis added:

[0016] In another aspect, the method for accelerated loading of an operating system comprises updating the list of boot data during the boot process. The step of updating comprises adding to the list any boot data requested by the computer system not previously stored in the list and/or removing from the list any boot data previously stored in the list and not requested by the computer system.

As another non-limiting example, Applicant respectfully directs the Examiner to ¶ [0109] of the Specification that provides, with emphasis added:

[0109] Further, during the boot process, if no request is made by the host computer for a data block that was pre-loaded into the local memory of the data storage controller (affirmative result in step 84), then the boot data list will be updated by removing the non-requested data block from the list (step 85). Thereafter, upon the next boot sequence, the data storage controller will not pre-load that data into local memory.

As a further non-limiting example, Applicant respectfully directs the Examiner to ¶ [0114] of the Specification that provides, with emphasis added:

[0114] Then, referring to Fig. 8b, upon each subsequent launch of the application (affirmative result in step 95), the data storage controller would retrieve and read the stored list (step 96) and then proceed to preload the application data specified on the list (i.e., the data associated with the expected data requests) into the onboard cache memory (step 97). During the application launch process, the data storage controller will receive requests for application data (step 98). If the host computer issues a request for application data that is pre-loaded in the local memory of the data storage controller (affirmative result in step 99), the request is immediately serviced using the preloaded data (step 100). If the host computer issues a request for application data that is not preloaded in the local memory of the data storage controller (negative result in step 99), the controller will retrieve the requested data from the hard disk memory, store the data in the local memory, and then deliver the requested application data to the computer bus (step 101). In addition, the data storage controller would update the application data list by recording any changes in the actual data requests as compared to the expected data requests already stored in the list (step 102).

As a yet further non-limiting example, Applicant respectfully directs the Examiner to ¶ [0115] of the Specification that provides, with emphasis added:

[0115] Further, during the launch process, if no request is made by the host computer for a data block that was pre-loaded into the local memory of the data storage controller (affirmative result in step 103), then the application data list will be updated by removing the non-requested data block from the list (step 104). Thereafter, upon the next launch sequence for the given application, the data storage controller will not pre-load that data into local memory.

These aforementioned features of claim 142 are not to be construed solely based upon this aforementioned passage in the Specification. Applicants reserve the right to demonstrate that these aforementioned features of claims 142 can be construed based upon different passages in the Specification in the future.

Accordingly, Applicants respectfully request the rejection to claims 10-11 and 141-142 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

#### Claim 12

Claim 12 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of “a second time to load” that was previously recited by claim 12 “is not disclosed in the provided specification anywhere.” (Office Action, p. 8). Although Applicants believe these features are disclosed in the Specification, Applicants have amended claim 12 to accommodate the Examiner’s rejection without acquiescing to the merits of this allegation and for the sole purpose of advancing prosecution of this Application. As discussed in the Statement of Substance of Interview above, the Examiner has agreed that the amendment to claim 12 presented

herewith overcome the rejections of this claim under 35 U.S.C. § 112, first paragraph. Accordingly, Applicants respectfully request the rejection to claim 12 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claim 137

Claim 137 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of “a second compressed boot data” that was previously recited by claim 137 “is not disclosed in the provided specification anywhere.” (Office Action, p. 9). Although Applicants believe these features are disclosed in the Specification, Applicants have amended claim 137 to accommodate the Examiner’s rejection without acquiescing to the merits of this allegation and for the sole purpose of advancing prosecution of this Application. As discussed in the Statement of Substance of Interview above, the Examiner has agreed that the amendment to claim 137 presented herewith overcome the rejections of this claim under 35 U.S.C. § 112, first paragraph. Accordingly, Applicants respectfully request the rejection to claim 137 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claim 138

Claim 138 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description and enablement requirements. Specifically, the Office Action alleges the features of “a second boot data” that was previously recited by claim 138 “is not disclosed in the provided specification anywhere.” (Office Action, p. 10). Although Applicants believe these features are disclosed in the Specification,

Atty. Dkt. No. 2855.004000B

Applicants have amended claim 138 to accommodate the Examiner's rejection without acquiescing to the merits of this allegation and for the sole purpose of advancing prosecution of this Application. As discussed in the Statement of Substance of Interview above, the Examiner has agreed that the amendment to claim 138 presented herewith overcome the rejections of this claim under 35 U.S.C. § 112, first paragraph. Accordingly, Applicants respectfully request the rejection to claim 138 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

***Allowable Subject Matter***

Claims 13, 51, 57-62, 81-84, 87, 91, 93-102, 105, 109, 111-116, 137-138, 141-144, 147-149, 152, and 154-155

Claims 13, 51, 57-62, 81-84, 87, 91, 93-102, 105, 109, 111-116, 137-138, 141-144, 147-149, 152, and 154-155 stand objected to as allegedly "being depended on rejected claims." (Office Action, p. 10). From the discussion above, Applicants have traversed the rejections to independent claims 6, 9, and 12. Dependent claims 13, 51, 57-62, 81-84, 87, 91, 93-102, 105, 109, 111-116, 137-138, 141-144, 147-149, 152, and 154-155 are likewise allowable for at least the same reasons as the independent claims from which they respectively depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the objection of claims 13, 51, 57-62, 81-84, 87, 91, 93-102, 105, 109, 111-116, 137-138, 141-144, 147-149, 152, and 154-155 be reconsidered and withdrawn.



*Allowed Claims*

Claims 1, 7, 14, 15-17, 19-20, 23, 25-30, 33, 37, 39-48, 55, 63-66, 69, 73, 75, 77-80, 117-120, 123, 127, 129-136, 139-140, 145-146, 150-151, 153, and 156-157

Applicants thank the Examiner for indicating the allowability of claims 1, 7, 14, 15-17, 19-20, 23, 25-30, 33, 37, 39-48, 55, 63-66, 69, 73, 75, 77-80, 117-120, 123, 127, 129-136, 139-140, 145-146, 150-151, 153, and 156-157 in the Office Action. (Office Action, p. 11). Applicants believe these claims should remain allowable even in light of the amendments to some of these claims presented herewith.

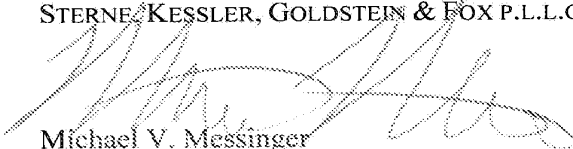
***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: August 20, 2014

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1883101\_1

Atty. Dkt. No. 2855.004000B

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>13/118,122</b>	Filing Date <b>05/27/2011</b>	<input type="checkbox"/> To be Mailed
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ENTITY:  LARGE  SMALL  MICRO

**APPLICATION AS FILED – PART I**

FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

**APPLICATION AS AMENDED – PART II**

	(Column 1)	(Column 2)	(Column 3)	(Column 4)	RATE (\$)	ADDITIONAL FEE (\$)
<b>AMENDMENT</b>	<b>08/20/2014</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	* 117	Minus	** 133	= 0	X \$80 = 0
	Independent (37 CFR 1.16(h))	* 7	Minus	***7	= 0	X \$420 = 0
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))					
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
					TOTAL ADD'L FEE	<b>0</b>

	(Column 1)	(Column 2)	(Column 3)	(Column 4)	RATE (\$)	ADDITIONAL FEE (\$)
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))					
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
					TOTAL ADD'L FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE  
/Kelley Dantzler/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978
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26111 7590 07/24/2014  
 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
 1100 NEW YORK AVENUE, N.W.  
 WASHINGTON, DC 20005

EXAMINER
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SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2118

MAIL DATE	DELIVERY MODE
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07/24/2014

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Applicant-Initiated Interview Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2118	

All participants (applicant, applicant's representative, PTO personnel):

(1) SURESH SURYAWANSHI. (3) \_\_\_\_\_.

(2) Michael R. Malek (Reg. No. 65,211). (4) \_\_\_\_\_.

Date of Interview: 23 July 2014.

Type:  Telephonic  Video Conference  
 Personal [copy given to:  applicant  applicant's representative]

Exhibit shown or demonstration conducted:  Yes  No.  
If Yes, brief description: \_\_\_\_\_.

Issues Discussed 101 112 102 103 Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 2-4,6,8-12,24,135-142,148 and 149.

Identification of prior art discussed: None.

**Substance of Interview**  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant suggested amendments and arguments overcome the current pending rejections. Attached here provided agenda with suggested amendments by applicant.

**Applicant recordation instructions:** The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/SURESH SURYAWANSHI/ Primary Examiner, Art Unit 2118	
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## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



UNITED STATES PATENT AND TRADEMARK OFFICE

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

13/118,122 05/27/2011 James J. Fallon 2855.004000B 8978

26111 7590 06/26/2014
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

Table with 1 column: EXAMINER

SURYAWANSHI, SURESH

Table with 2 columns: ART UNIT, PAPER NUMBER

2118

Table with 2 columns: MAIL DATE, DELIVERY MODE

06/26/2014 PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Applicant-Initiated Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	13/118,122	FALLON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SURESH SURYAWANSHI	2118	

All participants (applicant, applicant's representative, PTO personnel):

(1) SURESH SURYAWANSHI. (3)\_\_\_\_\_.

(2) Michael V. Messinger (Reg. No. 37,575). (4)\_\_\_\_\_.

Date of Interview: 24 June 2014.

Type:  Telephonic  Video Conference  
 Personal [copy given to:  applicant  applicant's representative]

Exhibit shown or demonstration conducted:  Yes  No.  
If Yes, brief description: \_\_\_\_\_.

Issues Discussed 101 112 102 103 Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: None.

Identification of prior art discussed: None.

**Substance of Interview**  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant called to find out if the rejection was final or non-final. Examiner indicated that the rejection was final but by mistake (somehow) non-final box was checked on Office Action Summary form.

**Applicant recordation instructions:** The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2118



## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



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SURYAWANSHI, SURESH

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2118

Table with 2 columns: MAIL DATE, DELIVERY MODE

06/18/2014 PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115	<b>AIA (First Inventor to File) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 5/6/14 amendments.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5)  Claim(s) See Continuation Sheet is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6)  Claim(s) See Continuation Sheet is/are allowed.
- 7)  Claim(s) 2-4,6,8-12,24 and 135-142 is/are rejected.
- 8)  Claim(s) See Continuation Sheet is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a)  All    b)  Some\*\*    c)  None of the:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
Paper No(s)/Mail Date 12/30/13,2/12/14,3/28/14,5/22/14.
- 3)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 4)  Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims pending in the application are 1-4,6-17,19,20,23-30,33,37,39-48,51,55,57-66,69,73-84,87,91,93-102,105,109,111-120,123,127 and 129-157.

Continuation of Disposition of Claims: Claims allowed are 1,7,14-17,19,20,23,25-30,33,37,39-48,55,63-66,69,73,75,77-80,117-120,123,127,129-136,139,140,145,146,150,151,153,156 and 157.

Continuation of Disposition of Claims: Claims objected to are 13,51,57-62,81-84,87,91,93-102,105,109,111-116,137,138,141-144,147-149,152,154 and 155.

1. The present application is being examined under the pre-AIA first to invent provisions.

### **DETAILED ACTION**

2. Claims 1-4, 6-17, 19-20, 23-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73, 75-84, 87, 91, 93-102, 105, 109, 111-120, 123, 127, 129-157 are presented for examination.

### ***Claim Objections***

3. Claim 74 is objected to because of the following informalities: it is indicated "Cancelled" and if it is not cancelled, it is not proper dependent claim. Appropriate correction is required.
4. Claim 76 is objected to because of the following informalities: it depends on a cancelled claim 74. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 2-4, 8, 24, 135-136, 139-140 and 148-149 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second portion of boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

7. Claims 2-4, 8, 24, 135-136, 139-140 and 148-149 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second portion of boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of boot data.

8. Claims 6 and 9 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a first memory” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

9. Claims 6 and 9 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a first memory” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of the operating system.

10. Claim 9 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second memory” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.



11. Claim 9 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second memory” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of the operating system.

12. Claims 10-11 and 141-142 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second portion of the operating system” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

13. Claims 10-11 and 141-142 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second portion of the operating system” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of the operating system.

14. Claim 12 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second time to load” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

15. Claim 12 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second time to load” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of the operating system.

16. Claim 137 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second compressed boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

17. Claim 137 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second compressed boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of boot data.

18. Claim 138 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have introduced a new limitation of “a second boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find the new limitation. Therefore, applicants have introduced a new matter.

19. Claim 138 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach introduced a new limitation of “a second boot data” that is not disclosed in the provided specification anywhere. Examiner searched the whole specification but he was unable to find this new limitation. The examiner submits that it would require undue experimentation to make and use the claimed second portion of boot data.

20. Claims 13, 51, 57-62, 81-84, 97, 91, 93-102, 105, 109, 111-116, 137-138, 141-144, 147-149, 152, 154-155 are objected as these are depended on rejected claims.

*Allowable Subject Matter*

21. Claims 1, 7, 14, 15-17, 19-20, 23, 25-30, 33, 37, 39-48, 55, 63-66, 69, 73, 75, 77-80, 117-120, 123, 127, 129-136, 139-140, 145-146, 150-151, 153, 156-157 are allowed.

*Conclusion*

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SURESH SURYAWANSHI whose telephone number is (571)272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2115

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 13/154,211, mailed November 26, 2013, 4 pages.	
	NPL2	Copy of Notice of Allowance for U.S. Appl. No. 13/101,994, mailed December 2, 2013, 7 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 11/553,419, mailed December 18, 2013, 6 pages.	
	NPL4	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,716, mailed December 20, 2013, 12 pages.	
	NPL5	Copy of Notice of Allowance for U.S. Appl. No. 14/035,712, mailed December 20, 2013, 8 pages.	
	NPL6	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,719, mailed December 20, 2013, 11 pages.	
	NPL7	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed November 13, 2013, 8 pages.	
	NPL8	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed November 21, 2013, 10 pages.	
	NPL9	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed November 27, 2013, 10 pages.	
	NPL10	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed December 5, 2013, 2 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	06/10/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional); <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./



Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL11	U.S. Patent Application No. 14/033,245, FALLON et al., "Systems and Methods for Video and Audio Data Storage and Distribution," filed September 20, 2013.	
	NPL12	U.S. Patent Application No. 14/035,712, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL13	U.S. Patent Application No. 14/035,719, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL14	U.S. Patent Application No. 14/035,716, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL15	U.S. Patent Application No. 14/035,561, James J. FALLON, "Data Compression Systems and Methods," filed September 24, 2013.	


1786149\_1

Examiner Signature	/Suresh Suryawanshi/	Date Considered	06/02/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.


ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>


Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
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	9		✓	=	=	✓	✓		
	10		✓	=	=	✓	✓		
	11		✓	=	=	✓	✓		
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	36			✓	-	-	-		

<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>


<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input checked="" type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
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<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE							
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	108			✓	-	-	-		

<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014		
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	139						✓		
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	141						✓		
	142						✓		
	143						○		
	144						○		

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014	05/28/2014		
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	153						=		
	154						O		
	155						O		
	156						=		
	157						=		

## EAST Search History

## EAST Search History (Prior Art)

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S2	2	"20020078241" "20030058873"	US-PGPUB	OR	OFF	2014/05/23 13:53
S3	8	list near2 boot adj1 data	USPAT	OR	OFF	2014/05/23 14:32
S4	11	list near2 boot adj1 data	US-PGPUB	OR	OFF	2014/05/23 14:36
S5	0	list near2 boot adj1 data	EPO; JPO; IBM_TDB	OR	OFF	2014/05/23 15:15
S6	1	load\$3 with boot adj1 data near3 compressed	USPAT	OR	OFF	2014/05/27 09:36
S7	1	load\$3 with boot adj1 data near3 compressed	US-PGPUB	OR	OFF	2014/05/27 09:39
S8	0	load\$3 with boot adj1 data near3 compressed	EPO; JPO; IBM_TDB	OR	OFF	2014/05/27 09:39
S9	2	boot near4 compressed with list with (computer system)	USPAT	OR	OFF	2014/05/27 09:56
S10	2	boot near4 compressed with list with (computer system)	US-PGPUB	OR	OFF	2014/05/27 10:04
S11	0	boot near4 compressed with list with (computer system)	EPO; JPO; IBM_TDB	OR	OFF	2014/05/27 10:04
S12	31	booting with (fast\$2 high\$2 adj1 speed) and compressed	USPAT	OR	OFF	2014/05/27 10:16
S13	13	booting with (fast\$2 high\$2 adj1 speed) and compressed with memory	USPAT	OR	OFF	2014/05/27 10:17
S14	15	booting with (fast\$2 high\$2 adj1 speed) and compressed with memory	US-PGPUB	OR	OFF	2014/05/27 10:30
S15	0	booting with (fast\$2 high\$2 adj1 speed) and compressed with memory	EPO; JPO; IBM_TDB	OR	OFF	2014/05/27 10:37
S16	16	updat\$3 near2 boot\$3 near2 list	USPAT	OR	OFF	2014/05/27 10:53
S17	16	updat\$3 near2 boot\$3 near2 list	US-PGPUB	OR	OFF	2014/05/27 11:08
S18	0	updat\$3 near2 boot\$3 near2 list	EPO; JPO; IBM_TDB	OR	OFF	2014/05/27 11:27
S19	12833	(fast\$2 high\$2 adj1 speed) near3 (boot\$3 resum\$3 start\$3 restart\$3)	USPAT	OR	OFF	2014/05/27 11:34
S20	317	(fast\$2 high\$2 adj1 speed) near3 (boot\$3 resum\$3 start\$3 restart\$3) near2 process	USPAT	OR	OFF	2014/05/27 11:34

EAST Search History

S21	1	(fast\$2 high\$2 adj1 speed) near3 (boot\$3 resum\$3 start\$3 restart\$3) near2 process with compressed	USPAT	OR	OFF	2014/05/27 11:35
S22	0	(fast\$2 high\$2 adj1 speed) near3 (boot\$3 resum\$3 start\$3 restart\$3) near2 process with compressed	US-PGPUB	OR	OFF	2014/05/27 11:35
S23	0	(fast\$2 high\$2 adj1 speed) near3 (boot\$3 resum\$3 start\$3 restart\$3) near2 process with compressed	EPO; JPO; IBM_TDB	OR	OFF	2014/05/27 11:35

5/ 28/ 2014 12:28:07 PM

C:\Users\ssuryawanshi\Documents\EAST\Workspaces\13118122AcceleratedLoadingOfOSPart7.wsp



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Eighth Supplemental Information Disclosure Statement**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to reexaminations are listed as **NPL6-NPL14**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014

4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent and PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Copies of documents **NPL1-NPL14** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents and patent application publications cited as documents **US1-US10** on the attached IDS Forms are submitted.

Applicants submit herewith Office Actions from the following co-pending, commonly-assigned U.S. Patent Application Nos.:

Document **NPL1** is a copy of a Notice of Allowance mailed February 20, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/101,994.

Document **NPL2** is a copy of a Supplemental Notice of Allowance mailed February 25, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/857,238.

Document **NPL3** is a copy of a Non-Final Office Action mailed February 25, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,933.

Document **NPL4** is a copy of a Non-Final Office Action mailed February 26, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/033,245.

Document **NPL5** is a copy of a Non-Final Office Action mailed February 27, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,926.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the

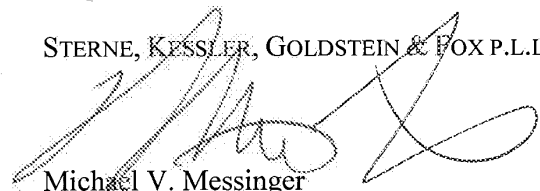
office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date:

March 28, 2014

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/Suresh Suryawanshi/

05/28/2014

<p>Substitute for form 1449/PTO</p> <p><b>EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(Use as many sheets as necessary)</i></p>	<b>Complete if Known</b>		
	Application Number	13/118,122	
	Filing Date	May 27, 2011	
	First Named Inventor	James J. FALLON	
	Art Unit	2115	
	Examiner Name	SURYAWANSHI, Suresh	
Attorney Docket Number	2855.004000B		
Sheet	1	of	1

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	US1	5,812,883		09-22-1998	Rao	
	US2	5,881,104		03-09-1999	Akahane	
	US3	5,901,278		05-04-1999	Kurihara et al.	
	US4	6,216,157	B1	04-10-2001	Vishwanath et al.	
	US5	6,257,693	B1	07-10-2001	Miller et al.	
	US6	6,938,073	B1	08-30-2005	Mendhekar et al.	
	US7	7,050,639	B1	05-23-2006	Barnes et al.	
	US8	7,245,636	B1	07-17-2007	Hans et al.	
	US9	2002/0078241	A1	06-20-2002	Vidal et al.	
	US10	2003/0058873	A1	03-27-2003	Geiger et al.	

FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/28/2014
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**ALL REFERENCES CONSIDERED EVER SINCE LINED THROUGH. /SKS./**



Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	2
		Attorney Docket Number	2855.004000B

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 13/101,994, mailed February 20, 2014, 5 pages.	
	NPL2	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 12/857,238, mailed February 25, 2014, 2 pages.	
	NPL3	Copy of Non-Final Office Action for U.S. Appl. No. 14/134,933, mailed February 25, 2014, 7 pages.	
	NPL4	Copy of Non-Final Office Action for U.S. Appl. No. 14/033,245, mailed February 26, 2014, 11 pages.	
	NPL5	Copy of Non-Final Office Action for U.S. Appl. No. 14/134,926, mailed February 27, 2014, 16 pages.	
	NPL6	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, executed November 29, 2013; 51 pages.	
	NPL7	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, executed November 29, 2013; 49 pages.	
	NPL8	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, executed November 29, 2013; 50 pages.	
	NPL9	Patent Owner's Request For Rehearing Under 37 C.F.R. § 41.79, in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed February 14, 2014, 11 pages.	
	NPL10	Patent Owner's Supplemental Reply to Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed February 27, 2014, 10 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	06/10/2014
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place check marks here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL11	Patent Owner's Supplemental Reply to Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed February 27, 2014, 9 pages.	
	NPL12	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed March 11, 2014, 48 pages.	
	NPL13	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed March 11, 2014, 39 pages.	
	NPL14	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed March 11, 2014, 67 pages.	

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	06/10/2014
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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>NINTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Final Office Action for U.S. Appl. No. 09/969,987, mailed April 8, 2014, 8 pages.	
	NPL2	Copy of Non-Final Office Action for U.S. Appl. No. 13/403,785, mailed May 9, 2014, 5 pages.	
	NPL3	U.S. Patent Application No. 14/251,453, James J. FALLON, "Data Compression Systems and Methods," filed April 11, 2014.	


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Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/28/2014
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<sup>1</sup> Applicant's unique classification number (optional). Applicant is to place check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Search Notes</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
713	2	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS
Search updated		2/11/14, 2/12/14	SKS
Search updated		5/23/14, 5/27/14	SKS

SEARCH NOTES		
Search Notes	Date	Examiner
EAST; USPAT; US-PGPUB; EPO; JPO; IBM_TDB; NPL	5/11/12, 5/14/12	SKS
Search updated	12/26/12	SKS
Search updated	7/16/13	SKS
Search updated	9/16/13	SKS
Claim language searched in US-PGPUB	9/16/13	SKS
Search updated	2/11/14, 2/12/14	SKS
Search updated	5/23/14, 5/27/14	SKS

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**INTERFERENCE SEARCH**

<b>US Class/ CPC Symbol</b>	<b>US Subclass / CPC Group</b>	<b>Date</b>	<b>Examiner</b>
713	1	5/11/12, 5/14/12	SKS
711	113	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS
Search updated		2/11/14, 2/12/14	SKS
Search updated		5/23/14, 5/27/14	SKS

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Substitute for form 1449/PTO		<i>Complete if Known</i>	
<b>SEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1
		Attorney Docket Number	2855.004000B

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	US1	5,784,631		07-21-1998	Wise	
	US2	5,807,036		09-15-1998	Lostlen	
	US3	5,856,797		01-05-1999	Kawauchi	
	US4	6,009,491		12-28-1999	Roppel et al.	
	US5	7,327,287	B2	02-05-2008	Martinian et al.	
	US6	7,711,938	B2	05-04-2010	Wise et al.	
	US7	8,004,431	B2	08-23-2011	Reznik	
	US8	2001/0019630	A1	09-06-2001	Johnson	

FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	r6
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/28/2014
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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	3

NON PATENT LITERATURE DOCUMENTS			
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	NPL1	Opinion, with Errata, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Case Nos. 13-1092, -1093, -1095, -1097, -1098, -1099, -1100, -1101, and -1103, United States Court of Appeals for the Federal Circuit, filed January 27, 2014, 41 pages.	
	NPL2	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 13/154,211, mailed December 19, 2013, 4 pages.	
	NPL3	Copy of Final Office Action for U.S. Appl. No. 12/690,125, mailed December 27, 2013, 12 pages.	
	NPL4	Copy of Corrected Notice of Allowability for U.S. Appl. No. 11/553,419, mailed January 14, 2014, 2 pages.	
	NPL5	Copy of Notice of Allowance for U.S. Appl. No. 14/035,561, mailed January 16, 2014, 9 pages.	
	NPL6	Copy of Corrected Notice of Allowability for U.S. Application No. 11/553,419, mailed January 31, 2014, 2 pages.	
	NPL7	Patent Owner's Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, filed December 2, 2013, 41 pages.	
	NPL8	Patent Owner's Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, filed December 2, 2013, 57 pages.	
	NPL9	Patent Owner's Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, filed December 2, 2013, 33 pages.	
	NPL10	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 2, 2014, 8 pages.	

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				Filing Date	May 27, 2011
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				Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	3	Attorney Docket Number	2855.004000B

<b>NON PATENT LITERATURE DOCUMENTS</b>			
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	NPL11	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 2, 2014, 8 pages.	
	NPL12	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 2, 2014, 10 pages.	
	NPL13	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed January 8, 2014, 2 pages.	
	NPL14	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed January 8, 2014, 3 pages.	
	NPL15	Examiner's Determination Under 37 C.F.R. § 41.77(d) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed January 14, 2014, 11 pages.	
	NPL16	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL17	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	
	NPL18	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.	
	NPL19	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL20	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/28/2014
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<sup>1</sup> Applicant's unique citation designations number (optional). <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
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Sheet	3	of	3
		Attorney Docket Number	2855.004000B
<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL21	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.	
	NPL22	Court Docket History for 6:10-cv-00493-LED-JDL, Realtime Data, LLC d/b/a IXO, v. T-Mobile, USA Inc., downloaded January 30, 2014, 78 pages.	
	NPL23	Court Docket History for 1:11-cv-06696-RJH, Realtime Data, LLC d/b/a IXO, v. Morgan Stanley et al., downloaded January 30, 2014, 80 pages.	
	NPL24	Court Docket History for 1:11-cv-06697-UA, Realtime Data, LLC d/b/a IXO, v. CME Group Inc. et al., downloaded January 30, 2014, 105 pages.	
	NPL25	Court Docket History for 1:11-cv-06698-UA, Realtime Data, LLC d/b/a IXO, v. Thomson Reuters et al., downloaded January 30, 2014, 59 pages.	
	NPL26	U.S. Patent Application No. 14/134,926, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.	
	NPL27	U.S. Patent Application No. 14/134,933, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.	

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/28/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation (number optional). <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>NINTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Final Office Action for U.S. Appl. No. 09/969,987, mailed April 8, 2014, 8 pages.	
	NPL2	Copy of Non-Final Office Action for U.S. Appl. No. 13/403,785, mailed May 9, 2014, 5 pages.	
	NPL3	U.S. Patent Application No. 14/251,453, James J. FALLON, "Data Compression Systems and Methods," filed April 11, 2014.	

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Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Michael V. Messinger/William Flanigen			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	19104409
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/William Flanigen
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	22-MAY-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	15:11:53
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

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Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	1480
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000B_9SIDS.pdf	1218906	yes	10
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<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Miscellaneous Incoming Letter	1	2	
		Transmittal Letter	3	9	
		Information Disclosure Statement (IDS) Form (SB08)	10	10	
<b>Warnings:</b>					
<b>Information:</b>					
2	Non Patent Literature	NPL1_FOA_09969987_04082014.pdf	303601	no	8
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<b>Information:</b>					
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<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1735611		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



May 22, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
***Attn: Mail Stop Amendment***

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. 1.17(p);
2. Ninth Supplemental Information Disclosure Statement;
3. Form PTO/SB/08b (1 sheet) listing 3 documents (**NPL1-NPL3**); and
4. Copies of cited documents (**NPL1-NPL2**).

***The above-listed documents are filed electronically through EFS-Web.***

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

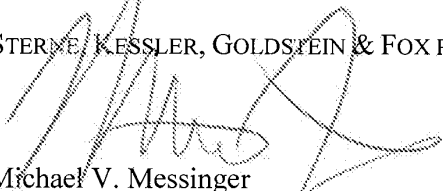


Commissioner for Patents  
May 22, 2014  
Page 2

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/wcf  
Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Ninth Supplemental Information Disclosure Statement**

*Mail Stop Amendment*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	<i>Inter Partes</i> Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	<i>Inter Partes</i> Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	<i>Ex Parte</i> Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	<i>Inter Partes</i> Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	<i>Inter Partes</i> Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	<i>Inter Partes</i> Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime</i>	Dismissed

	<i>Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Form PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Form based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

A copies of documents **NPL1-NPL2** are submitted. However, a copy of document **NPL3**, cited on the attached IDS Forms, is not provided in accordance with the U.S. Patent and Trademark Office Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the

office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

Applicants submit herewith Office Actions from the following co-pending U.S. Patent Applications:

Document **NPL1** is a copy of a Final Office Action mailed April 8, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 09/969,987.

Document **NPL2** is a copy of a Non-Final Office Action mailed May 9, 2014 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/403,785.

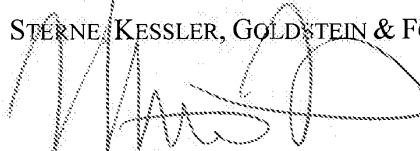
The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Form, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date:

10/22, 2014

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment and Reply Under 37 C.F.R. § 1.111**

*Mail Stop Amendment*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

In reply to the Office Action dated February 19, 2014 (“Office Action”), Applicants submit the following Amendment and Remarks.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any additional fees required to continue prosecution or appeal of this application (including issue fee, fees for net addition of claims or forwarding to appeal) are hereby authorized to be charged to our Deposit Account No. 19-0036.

***Amendments to the Claims***

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, the method comprising:

~~maintaining a list of boot data for booting the computer system;~~

~~wherein at least a portion of boot data is associated with the list of boot data;~~

loading ~~[[the]]~~ at least a portion of boot data in a compressed form that is associated with a portion of a boot data list for booting the computer system into a memory;

accessing the loaded ~~at least a portion of boot data in~~ ~~[[a]]~~ the compressed form from the memory; ~~[[and]]~~

decompressing~~[[,]]~~ ~~on a just-in-time basis,~~ the ~~at least a~~ accessed portion of boot data in the compressed form ~~from the memory~~ at a rate that decreases a boot time of the operating system relative to loading the operating system utilizing boot data in an uncompressed form; and

updating the boot data list,

wherein the ~~at least a~~ portion of decompressed boot data ~~[[is]]~~ comprises:

a portion of the operating system ~~for the computer system.~~

2. (Currently Amended) The method of claim 1, ~~further comprising:~~ wherein the updating comprises:

~~updating the list of boot data by associating additional boot data~~ a second portion of boot data with the ~~list of boot data~~ list. [[:]]

~~compressing the boot data loaded into the memory with a data compression engine; and compressing the additional boot data with an encoder coupled to the data compression engine.~~

3. (Currently Amended) The method of claim 1, ~~further comprising;~~ wherein the updating comprises:

~~updating the list of boot data by removing an association of additional boot data~~ a second portion of boot data that is associated with the boot data list from the ~~list of boot data~~ list.

4. (Currently Amended) The method of claim 1, ~~further comprising;~~ wherein the updating comprises:

~~updating the list of boot data by associating additional~~ a second portion of boot data with the ~~list of boot data~~ list; and

~~compressing at least a portion of the additional~~ second portion of boot data with a ~~data compression encoder.~~

5. (Cancelled)

6. (Currently Amended) A method for booting a computer system, the method comprising:

~~maintaining a list of compressed boot data for booting a computer system;~~

Reply to Office Action of February 19, 2014

FALLON *et al.*  
Appl. No. 13/118,122

storing ~~compressed~~ boot data in a compressed form associated with ~~[[the]]~~ a portion of a list of compressed boot data list ~~[[on]]~~ in a non-volatile first memory;

loading the stored compressed boot data from the ~~non-volatile first~~ memory ~~to a second~~ memory;

accessing the loaded compressed boot data ~~from the second~~ memory;

decompressing the accessed compressed boot data ~~to provide decompressed boot data~~; ~~[[and]]~~

utilizing the decompressed boot data to at least partially boot the computer system; and

updating the boot data list,

wherein the loading, the accessing, and the decompressing occur within a period of time which is less than a time to access the boot data from the ~~non-volatile first~~ memory if the boot data was stored in the first memory in an uncompressed form.

7. (Currently Amended) A system, comprising:

a processor;

a memory; and

a ~~non-volatile~~ memory device configured to store boot data in a compressed form for booting the system and a logic code associated with the processor, ~~the logic code including instructions executable by the processor for maintaining a list of boot data used for booting the system,~~

wherein the processor is configured:

to load ~~at least~~ a portion of the boot data in the compressed form that is associated with a boot data list used for booting the system into the memory,

to access the ~~at least a~~ loaded portion of the boot data in the compressed form, ~~[[and]]~~

to decompress the ~~at least a~~ accessed portion of the boot data in the compressed form at a rate that decreases a boot time of the system relative to booting the system with uncompressed boot data ~~to boot the system, and~~

to update the boot data list.

8. (Currently Amended) The system of claim 7, further comprising:

a data compression engine, coupled to the ~~non-volatile~~ memory, configured to compress the portion of boot data to provide the portion of boot data in the compressed form; and

a data compression encoder, coupled to the data compression engine, configured to compress ~~additional~~ a second portion of boot data, the second portion of boot data not being associated with the boot data list.

9. (Currently Amended) A method of loading an operating system for booting a computer system, comprising:

storing ~~substantially all~~ a first portion of the operating system in a compressed form ~~[[on]]~~ in a non-volatile first memory;

loading ~~[[a]]~~ the first portion of the operating system ~~in compressed form~~ from the ~~non-volatile~~ first memory to a second memory, the first portion of the operating system being associated with a boot data list;

accessing the first portion of the operating system from the second memory in the compressed form;

decompressing the accessed first portion of the operating system to provide a decompressed first portion of the operating system;

utilizing the decompressed first portion of the operating system to at least partially boot the computer system; and

~~loading a second portion of the operating system in the compressed form from the non-volatile memory to the second memory;~~

~~accessing the second portion from the memory in the compressed form;~~

~~decompressing the second portion to provide a decompressed second portion of the operating system; and~~

~~utilizing the decompressed second portion to further partially boot the computer system;~~

~~updating the boot data list.~~

wherein the first ~~and second~~ portion[[s]] of the operating system [[are]] is accessed and decompressed at a rate that is faster than accessing the loaded first [[and]] ~~second~~ portion of the operating system from the ~~non-volatile~~ first memory if the first portion of the operating system was to be stored in the first memory in an uncompressed form.

10. (Currently Amended) The method of claim 9, further comprising:

~~compressing additional boot data a second portion of the operating system that is not associated with the boot data list to provide additional compressed boot data; and~~

~~storing the additional compressed boot data second portion of the operating system in the ~~non-volatile~~ first memory, and wherein said utilizing comprises:~~

utilizing the stored second portion of the operating system to at least further partially boot the computer system.

11. (Currently Amended) The method of claim 10, wherein the compressing comprises:

compressing the ~~additional boot data~~ second portion of the operating system with a data compression encoder.

12. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in a compressed form that is associated with a boot data list from a ~~non-volatile~~ boot device into a memory upon initialization of the computer system;

accessing the loaded boot data in the compressed form from the memory;

decompressing the accessed boot data in the compressed form ~~accessed from the memory~~ at a rate that decreases a time to load the operating system relative to ~~loading a second time to load~~ the operating system with [[the]] boot data in an uncompressed form to provide decompressed boot data; [[and]]

utilizing the decompressed boot data to load at least a portion the operating system for the computer system; and

updating the boot data list.

13. (Currently Amended) The method of claim 12, further comprising:

~~compressing additional boot data that is not associated with a boot data list with a random-access data compression encoder.~~

14. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

~~maintaining a boot data list;~~

~~loading boot data in a compressed form that is associated with [[the]] a boot data list from a non-volatile boot device into a memory as compressed boot data upon initialization of the computer system;~~

~~accessing the loaded compressed boot data in the compressed form from the memory; [[and]]~~

~~decompressing[[,]] on a just-in-time basis, the compressed accessed boot data in the compressed form accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in an uncompressed form; and~~

~~updating the boot data list.~~

15. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein at least a portion of the boot data is in a compressed form and is associated with a boot data list;

loading the boot data into a memory; and

servicing a request[[s]] for the boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing to access



the loaded compressed boot data and ~~decompressing to decompress~~ the accessed compressed boot data at a rate that decreases ~~an overall~~ a boot time of the operating system relative to loading the operating system utilizing boot data in an uncompressed form; and

updating the boot data list.

16. (Currently Amended) The method of claim 15, wherein the boot data comprises:

a program code associated with the operating system.

17. (Currently Amended) The method of claim 15, wherein the operating system comprises:

a plurality of multiple files.

18. (Cancelled)

19. (Currently Amended) The method of claim 15, wherein the boot data comprises:

a program code associated with a combination of the operating system and one or more an application program[[s]].

20. (Currently Amended) The method of claim [[18]] 19, wherein the ~~one or more~~ application program[[s]] comprises:

a plurality of multiple files.

21.-22 (Cancelled)

23. (Currently Amended) The method of claim ~~[[22]]~~ 15, wherein the servicing comprises:

servicing the request to access boot data that is not associated with the boot data list, and wherein the updating comprises:

adding associating the accessed boot data that is not associated with the boot data list to the boot data list ~~any boot data requested by the computer system not previously stored in the list.~~

24. (Currently Amended) The method of claim ~~[[22]]~~ 15, wherein a second portion of the boot data that is associated with the boot data list is not accessed, and wherein the updating comprises:

disassociating the second portion of the boot data ~~removing~~ from the boot data list ~~any boot data previously stored in the list and not requested by the computer system.~~

25. (Currently Amended) The method of claim 15, further comprising:  
maintaining ~~[[a]]~~ the boot data list.

26. (Currently Amended) The method of claim 15, wherein the accessing comprises:

accessing the boot data from a non-volatile memory ~~device~~.

27. (Currently Amended) The method of claim 1, wherein the ~~at least a~~ portion of the boot data in the compressed form represents a plurality of files.

28. (Currently Amended) The method of claim 1, wherein the ~~at least a~~ portion of the boot data in the compressed form comprises:  
a program code associated with the operating system.

29. (Currently Amended) The method of claim 1, further comprising:  
compressing the ~~at least a~~ portion of the boot data with ~~one or more advanced~~ a compression ~~encoders~~ encoder to provide the ~~at least a~~ portion of the boot data in the compressed form.

30. (Currently Amended) The method of claim 1, wherein the decompressing comprises:  
decompressing the ~~at least a~~ accessed portion of the boot data in the compressed form utilizing ~~one or more advanced~~ a decompression ~~decoders~~ decoder.

31. – 32. (Cancelled)

33. (Currently Amended) The method of claim 1, wherein the memory [[is]] comprises:  
a physical memory.

34. – 36. (Cancelled)

37. (Currently Amended) The method of claim 1, wherein the operating system comprises:

~~multiple~~ a plurality of files.

38. (Cancelled)

39. (Currently Amended) The method of claim 1, wherein the boot data comprises:

a program code associated with a combination of the operating system and one or more application programs program.

40. (Currently Amended) The method of claim ~~[[38]]~~ 39, wherein the ~~one or more application programs program~~ comprises: are comprised of

~~multiple~~ a plurality of files.

41. (Currently Amended) The method of claim 1, wherein the accessing comprises:

accessing the loaded ~~at least a~~ portion of the boot data in the compressed form via direct memory access.

42. (Currently Amended) The method of claim 1, wherein ~~Huffman~~ a form of dictionary encoding ~~[[is]]~~ was utilized to encode the ~~at least a~~ portion of the boot data in the compressed form.

43. (Currently Amended) The method of claim 1, wherein Lempel-Ziv encoding ~~[[is]]~~ was utilized to encode ~~at least a~~ the portion of the boot data in the compressed form.

44. (Currently Amended) The method of claim 1, wherein a plurality of encoders ~~[[are]]~~ were utilized to encode the ~~at least a~~ portion of the boot data in compressed form.

45. (Currently Amended) The method of claim 6, wherein the compressed boot data represents a plurality of files.

46. (Currently Amended) The method of claim 6, wherein the compressed boot data comprises:

a program code associated with an operating system of the computer system.

47. (Currently Amended) The method of claim 6, further comprising:

compressing the boot data ~~with one or more advanced compression encoders~~ to provide the compressed boot data.

48. (Currently Amended) The method of claim 6, wherein the decompressing comprises:

decompressing the compressed boot data with ~~one or more advanced~~ a decompression ~~decoders~~ decoder.

49. – 50. (Cancelled)

51. (Currently Amended) The method of claim 6, wherein the second memory  
[[is]] comprises:

a physical memory.

52. – 54. (Cancelled)

55. (Currently Amended) The method of claim 46, wherein the operating  
system comprises:

~~multiple~~ a plurality of files.

56. (Cancelled)

57. (Currently Amended) The method of claim 6, wherein the compressed  
boot data comprises:

a program code associated with a combination of an operating system of the  
computer system and one or more application programs program.

58. (Currently Amended) The method of claim [[56]] 57, wherein the ~~one or  
more application programs program~~ includes comprises:

a plurality of multiple files.

59. (Currently Amended) The method of claim 6, wherein the accessing comprises:

accessing the loaded compressed boot data via direct memory access.

60. (Currently Amended) The method of claim 6, wherein ~~Huffman~~ a form of dictionary encoding ~~[[is]]~~ was utilized to encode the compressed boot data.

61. (Currently Amended) The method of claim 6, wherein Lempel-Ziv encoding ~~[[is]]~~ was utilized to encode the compressed boot data.

62. (Currently Amended) The method of claim 6, wherein a plurality of encoders ~~[[are]]~~ were utilized to encode the compressed boot data.

63. (Currently Amended) The system of claim 7, wherein the boot data in the compressed form represents a plurality of files.

64. (Currently Amended) The system of claim 7, wherein the boot data in the compressed form comprises:

a program code associated with an operating system.

65. (Currently Amended) The system of claim 7, further comprising:  
~~one or more advanced compression encoders~~ an encoder configured to compress the boot data to provide the boot data in the compressed form.

66. (Currently Amended) The system of claim 7, further comprising:  
~~one or more advanced decompression decoders~~ a decoder configured to decompress the boot data in the compressed form.

67. – 68. (Cancelled)

69. (Currently Amended) The system of claim 7, wherein the first memory comprises: [[is]]  
a physical memory.

70. – 72. (Cancelled)

73. (Currently Amended) The system of claim 7, wherein the boot data in the compressed form ~~is comprised~~ comprises: of multiple  
a plurality of files.

74. (Cancelled) a program code associated with ~~one or more~~ an application ~~programs~~ program of the system.

75. (Currently Amended) The system of claim 7, wherein the boot data in the compressed form comprises:  
a program code associated with ~~a combination of~~ an operating system of the system and ~~one or more~~ an application ~~programs~~ program.



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76. (Currently Amended) The system of claim 74, wherein the ~~one or more~~ application ~~programs~~ program comprises: are comprised of multiple a plurality of files.

77. (Currently Amended) The system of claim 7, wherein the processor is further configured to access the loaded ~~at least a~~ portion of the boot data in the compressed form from the memory via direct memory access.

78. (Currently Amended) The system of claim 7, wherein the processor is further configured to utilize ~~Huffman~~ a form of dictionary encoding to encode ~~[[the]]~~ a portion of the boot data to provide the portion of the boot data in the compressed form.

79. (Currently Amended) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode ~~[[the]]~~ a portion of the boot data to provide the portion of the boot data in the compressed form.

80. (Currently Amended) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in the compressed form.

81. (Currently Amended) The method of claim 9, wherein the operating system in the compressed form represents a plurality of files.

82. (Currently Amended) The method of claim 9, wherein the operating system in the compressed form comprises:

program code associated with ~~[[an]]~~ the operating system.

83. (Currently Amended) The method of claim 9, further comprising:

compressing a first portion of the operating system ~~with one or more advanced compression encoder~~ to provide the first portion of the operating system in the compressed form.

84. (Currently Amended) The method of claim 9, wherein the decompressing the accessed first ~~and second~~ portion~~[[s]]~~ comprise:

decompressing the accessed first ~~and second~~ portion~~[[s]]~~ with ~~one or more advanced~~ a decompression decoder~~[[s]]~~.

85. – 86. (Cancelled)

87. (Currently Amended) The method of claim 9, wherein the first memory comprises: [[is]]

a physical memory.

88. – 90. (Cancelled)

91. (Currently Amended) The method of claim 9, wherein the operating system comprises: is comprised of multiple

a plurality of files.

92. (Cancelled)

93. (Currently Amended) The method of claim 9, wherein the operating system in the compressed form comprises:

a program code associated with ~~a combination of an~~ the operating system ~~of the computer system~~ and ~~one or more~~ an application program[[s]].

94. (Currently Amended) The method of claim [[92]] 93, wherein the ~~one or more~~ application program comprises: programs are comprised of multiple a plurality of files.

95. (Currently Amended) The method of claim 9, wherein the accessing comprises:  
accessing the loaded first portion from the second memory via direct memory access.

96. (Currently Amended) The method of claim 9, wherein ~~Huffman~~ a form of dictionary encoding [[is]] was utilized to encode the operating system in the compressed form.

97. (Currently Amended) The method of claim 9, wherein Lempel-Ziv encoding [[is]] was utilized to encode the operating system in the compressed form.

98. (Currently Amended) The method of claim 9, wherein a plurality of encoders ~~[[are]]~~ were utilized to encode the operating system in the compressed form.

99. (Currently Amended) The method of claim 12, wherein the boot data in the compressed form represents a plurality of files.

100. (Currently Amended) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

101. (Currently Amended) The method of claim 12, further comprising:  
compressing boot data ~~in compressed form utilizing one or more advanced compression encoder~~ to provide the boot data in the compressed form.

102. (Currently Amended) The method of claim 12, wherein the decompressing comprises:

decompressing the boot data in the compressed form utilizing ~~one or more advanced~~ a decompression decoder~~[[s]]~~.

103. – 104. (Cancelled)

105. (Currently Amended) The method of claim 12, wherein the memory comprises: [[is]]

a physical memory.

106. – 108. (Cancelled)

109. (Currently Amended) The method of claim 12, wherein the operating system ~~is comprised of multiple~~ comprises:

a plurality of files.

110. (Cancelled)

111. (Currently Amended) The method of claim 12, wherein the boot data in the compressed form comprises:

a program code associated with ~~a combination of~~ the operating system and ~~one or more~~ an application program[[s]].

112. (Currently Amended) The method of claim [[110]] 111, wherein the ~~one or more~~ application program[[s]] ~~are comprised of multiple~~ comprises:

a plurality of files.

113. (Currently Amended) The method of claim 12, wherein the accessing comprises:

accessing the boot data in the compressed form from the memory via direct memory access.

114. (Currently Amended) The method of claim 12, wherein ~~Huffman~~ a form of dictionary encoding ~~[[is]]~~ was utilized to encode the boot data in the compressed form.

115. (Currently Amended) The method of claim 12, wherein Lempel-Ziv encoding ~~[[is]]~~ was utilized to encode the boot data in the compressed form.

116. (Currently Amended) The method of claim 12, wherein a plurality of encoders ~~[[are]]~~ were utilized to encode the boot data in compressed form.

117. (Currently Amended) The method of claim 14, wherein the ~~compressed~~ boot data in the compressed form represents a plurality of files.

118. (Currently Amended) The method of claim 14, wherein the boot data in the compressed form comprises:

a program code associated with the operating system.

119. (Currently Amended) The method of claim 14, further comprising:

compressing ~~[[the]]~~ boot data ~~with one or more advanced compression encoders~~ to provide the compressed boot data.

120. (Currently Amended) The method of claim 14, wherein the decompressing comprises:

decompressing the compressed boot data with ~~one or more advanced~~ a decompression decoder~~[[s]]~~.

121. – 122. (Cancelled)

123. (Currently Amended) The method of claim 14, wherein the memory ~~[[is]]~~  
comprises:

a physical memory.

124. – 126. (Cancelled)

127. (Currently Amended) The method of claim 14, wherein the operating  
system is comprised of ~~multiple~~ a plurality of files.

128. (Cancelled)

129. (Currently Amended) The method of claim 14, wherein the boot data in  
the compressed form comprises:

a program code associated with a combination of the operating system and ~~one or~~  
more application program[[s]].

130. (Currently Amended) The method of claim ~~[[128]]~~ 129, wherein the ~~one~~  
~~or more~~ application program[[s]] ~~[[are]]~~ is comprised of ~~multiple~~ a plurality of files.

131. (Currently Amended) The method of claim 14, wherein the accessing  
comprises:

accessing the loaded ~~compressed~~ boot data in the compressed form ~~from the~~ ~~memory~~ via direct memory access.

132. (Currently Amended) The method of claim 14, wherein ~~Huffman~~ a form of dictionary encoding ~~[[is]]~~ was utilized to encode the compressed boot data.

133. (Currently Amended) The method of claim 14, wherein Lempel-Ziv encoding ~~[[is]]~~ was utilized to encode the compressed boot data.

134. (Currently Amended) The method of claim 14, wherein a plurality of encoders ~~[[are]]~~ were utilized to encode the compressed boot data.

135. (New) The method of claim 1, further comprising:

accessing a second portion of boot data that is not associated with the boot data list, and wherein the updating comprises:

associating the second portion of boot data with the boot data list.

136. (New) The method of claim 1, wherein a second portion of boot data that is associated with the boot data list is not accessed, and wherein the updating comprises:

disassociating the second portion of boot data from the boot data list.

137. (New) The method of claim 6, further comprising:

accessing a second compressed boot data that is not associated with the boot data list, and wherein the updating comprises:



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associating the second compressed boot data with the boot data list.

138 (New) The method of claim 6, wherein second boot data that is associated with the boot data list is not accessed, and wherein the updating comprises:

disassociating the second boot data from the boot data list.

139. (New) The system of claim 7, wherein the processor is further configured: to access a second portion of the boot data that is not associated with the boot data list, and

to associate the second portion of the boot data with the boot data list.

140. (New) The system of claim 7, wherein a second portion of the boot data in that is associated with the boot data list is not accessed by the processor, and wherein the processor is further configured:

to disassociate the second boot data from the boot data list.

141. (New) The method of claim 9, further comprising:

accessing a second portion of the operating system that is not associated with the boot data list, and wherein the updating comprises:

associating the second portion of the operating system with the boot data list.

142. (New) The method of claim 9, wherein a second portion of the operating system that is associated with the boot data list is not accessed from the memory, and wherein the updating comprises:

disassociating the second portion of the operating system from the boot data list.

143. (New) The method of claim 12, further comprising:

accessing second boot data that is not associated with the boot data list, and

wherein the updating comprises:

associating the second boot data with the boot data list.

144. (New) The method of claim 12, wherein second boot data that is associated with the boot data list is not accessed from the memory, and wherein the updating comprises:

disassociating the second boot data from the boot data list.

145. (New) The method of claim 14, further comprising:

accessing second boot data that is not associated with the boot data list, and

wherein the updating comprises:

associating the second boot data with the boot data list.

146. (New) The method of claim 14, wherein second boot data that is associated with the boot data list is not accessed, and wherein the updating comprises:

disassociating the second boot data from the boot data list.

147. (New) The method of claim 2, further comprising:

storing the updated boot list in a non-volatile memory.

148. (New) The method of claim 2, further comprising:  
compressing at least a portion of the second portion of boot data.

149. (New) The method of claim 148, further comprising:  
storing the compressed second portion of boot data.

150. (New) The method of claim 1, wherein a plurality of data compression encoders were utilized to encode the portion of the boot data in the compressed form.

151. (New) The method of claim 1, wherein the updating comprises:  
updating the boot data list in response to the accessing.

152. (New) The method of claim 6, wherein the updating comprises:  
updating the boot data list in response to the utilizing.

153. (New) The system of claim 7, wherein the processor is configured to update the boot data list based upon the accessed portion of the boot data.

154. (New) The method of claim 9, wherein the updating comprises:  
updating the boot data list in response to the accessing or the utilizing.

155. (New) The method of claim 12, wherein the updating comprises:  
updating the boot data list in response to the accessing or the utilizing.

156. (New) The method of claim 14, wherein the updating comprises:  
updating the boot data list in response to the accessing.

157. (New) The method of claim 15, wherein the updating comprises:  
updating the boot data list in response to the servicing.

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-4, 6-17, 19, 20, 23-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73, 75-84, 87, 91, 93-102, 105, 109, 111-120, 123, 127, 129-157 are pending in the application, with claims 1, 6, 7, 9, 12, 14, and 15 being the independent claims. Claims 1-4, 6-17, 19, 20, 23-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73-84, 87, 91-102, 105, 109-120, 123, 127-134 are sought to be amended. Claims 5, 18, 22, 31, 32, 34-36, 38, 49, 50, 52-54, 56, 68, 70-72, 74, 85, 86, 88-90, 92, 103, 104, 106-108, 10, 121, 122, 124-126, and 128 are sought, or were previously sought, to be canceled without prejudice to or disclaimer of the subject matter therein. Applicants reserve the right to prosecute similar or broader claims, with respect to the cancelled and/or amended claims, in the future. New claims 135-157 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 102***

Claims 1, 6-7, 9, 12, 14-22, 25-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134

Claims 1, 6-7, 9, 12, 14-22, 25-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by United States Patent No. 6,374,353 to Settsu et al. ("Settsu"). Without acquiescing to the merits of this allegation, Applicants have cancelled, or previously cancelled, claims 5, 18, 22, 31, 32, 34-36, 38, 49, 50, 52-54, 56, 68, 70-72, 74, 85, 86, 88-90, 92, 103, 104, 106-108, 110, 121, 122, 124-126, and 128 without prejudice or disclaimer, thereby rendering moot the rejections of the same. Applicants contend that the canceling of these claims does not give rise to any implication regarding whether Applicants agree with or acquiesce to this rejection. In regard to the remaining pending claims, Applicants respectfully traverse the rejection and provide the following arguments to support patentability.

The Office Action indicates that “[c]laims 2-4 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (Office Action, p. 21). Without acquiescing to the merits of this allegation and for the purpose of advancing prosecution of this Application, Applicants have amended independent claims 1, 6, 7, 9, 12, 14, and 15 to substantially incorporate the “updating” feature that was previously recited by dependent claim 22, now cancelled. The amendments to independent claims 1, 6, 7, 9, 12, 14, and 15 and to dependent claims 16-22, 25-30, 33,

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37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134 presented herewith does not give rise to any implication regarding whether Applicants agree with or acquiesce to this rejection.

Accordingly, Applicants believe that independent claims 1, 6, 7, 9, 12, 14, and 15 should be in condition for allowance. Applicants believe dependent claims 16-21, 25-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134 should likewise be in condition for allowance for at least the same reasons as the independent claims from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 1, 6-7, 9, 12, 14-21, 25-30, 33, 37, 39-48, 51, 55, 57-66, 69, 73, 75-84, 87, 91, 93-102, 105, 109, 111-120, 123, 127 and 129-134 under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

***Allowable Subject Matter***

Claims 2-4 and 22-24

Claims 2-4 and 22-24 stand objected to as allegedly “being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (Office Action, p. 21). Without acquiescing to the merits of this allegation, Applicants have cancelled dependent claim 22 without prejudice or disclaimer, thereby rendering moot the objections of the same. Applicants contend that the canceling of this claim does not give rise to any implication regarding whether Applicants agree with or acquiesce to this objection. In regard to dependent claims 2-4, 23, and 24, Applicants respectfully traverse the objection and provide the following arguments to support patentability.

From the discussion above, Applicants have traversed the rejections to independent claims 1 and 15. Dependent claims 2-4, 23, and 24 are likewise allowable for at least the same reasons as the independent claims from which they respectively depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the objection of claims 2-4, 23, and 24 be reconsidered and withdrawn.

***Addition of New Claims***

**Claims 135-157**

New claims 135-157 have been added. From the discussion above, Applicants have traversed the rejections to independent claims 1, 6, 7, 9, 12, 14, and 15. Applicants believe dependent claims 135-157 should likewise be allowable for at least the same reasons as the independent claims from which they respectively depend and further in view of their own respective features.

***Information Disclosure Statement***

Applicants filed an Eighth Supplemental Information Disclosure Statement on March 28, 2014. Applicants respectfully request that this IDS be considered, and that the Forms SB/08A and SB/08B, be returned in the next communication indicating that the references have been considered.



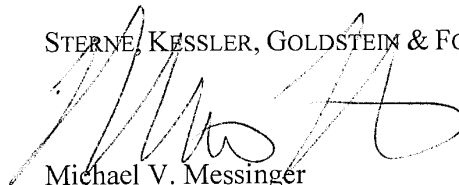
***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Date: May 6, 2014

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## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	18960218
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	2855.004000B
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<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	18:18:56
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2855_004000B_AMEND.pdf	847505 79b6abc6293568880a083fd63dc042f9e903d8c	yes	34

<b>Multipart Description/PDF files in .zip description</b>			
<b>Document Description</b>		<b>Start</b>	<b>End</b>
Miscellaneous Incoming Letter		1	1
Amendment/Req. Reconsideration-After Non-Final Reject		2	2
Claims		3	29
Applicant Arguments/Remarks Made in an Amendment		30	34

**Warnings:**

**Information:**

**Total Files Size (in bytes):**

847505

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



May 6, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
***Attn: Mail Stop Amendment***

Re: U.S. Utility Patent Application  
Appl. No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action is a document entitled **Amendment and Reply Under 37 C.F.R. §1.111** which is submitted electronically through EFS-Web.

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Michael V. Messinger". The signature is fluid and cursive, with a large initial "M" and "V".

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/jmh  
Enclosure

1848075\_1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875			Application or Docket Number 13/118,122	Filing Date 05/27/2011	<input type="checkbox"/> To be Mailed
ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO					
<b>APPLICATION AS FILED – PART I</b>					
(Column 1)		(Column 2)			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$	=	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$	=	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>					
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL		

<b>APPLICATION AS AMENDED – PART II</b>							
(Column 1)		(Column 2)		(Column 3)			
AMENDMENT	<b>05/06/2014</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 118	Minus	** 133	= 0	X \$80 =	0
	Independent (37 CFR 1.16(h))	* 7	Minus	***7	= 0	X \$420 =	0
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	<b>0</b>

(Column 1)		(Column 2)		(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE  
/TRINA STEPTOE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**  
 If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form I449/PTO  <b>EIGHTH SUPPLEMENTAL                  INFORMATION DISCLOSURE                  STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	1

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	US1	5,812,883		09-22-1998	Rao	
	US2	5,881,104		03-09-1999	Akahane	
	US3	5,901,278		05-04-1999	Kurihara et al.	
	US4	6,216,157 B1		04-10-2001	Vishwanath et al.	
	US5	6,257,693 B1		07-10-2001	Miller et al.	
	US6	6,938,073 B1		08-30-2005	Mendhekar et al.	
	US7	7,050,639 B1		05-23-2006	Barnes et al.	
	US8	7,245,636 B1		07-17-2007	Hans et al.	
	US9	2002/0078241 A1		06-20-2002	Vidal et al.	
	US10	2003/0058873 A1		03-27-2003	Geiger et al.	

FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	2

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 13/101,994, mailed February 20, 2014, 5 pages.	
	NPL2	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 12/857,238, mailed February 25, 2014, 2 pages.	
	NPL3	Copy of Non-Final Office Action for U.S. Appl. No. 14/134,933, mailed February 25, 2014, 7 pages.	
	NPL4	Copy of Non-Final Office Action for U.S. Appl. No. 14/033,245, mailed February 26, 2014, 11 pages.	
	NPL5	Copy of Non-Final Office Action for U.S. Appl. No. 14/134,926, mailed February 27, 2014, 16 pages.	
	NPL6	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, executed November 29, 2013; 51 pages.	
	NPL7	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, executed November 29, 2013; 49 pages.	
	NPL8	Declaration of Dr. James W. Modestino under 37 C.F.R. § 1.132 in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, executed November 29, 2013; 50 pages.	
	NPL9	Patent Owner's Request For Rehearing Under 37 C.F.R. § 41.79, in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed February 14, 2014, 11 pages.	
	NPL10	Patent Owner's Supplemental Reply to Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed February 27, 2014, 10 pages.	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL11	Patent Owner's Supplemental Reply to Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed February 27, 2014, 9 pages.	
	NPL12	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed March 11, 2014, 48 pages.	
	NPL13	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed March 11, 2014, 39 pages.	
	NPL14	Corrected Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed March 11, 2014, 67 pages.	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122				
<b>Filing Date:</b>	27-May-2011				
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS				
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon				
<b>Filer:</b>	Michael V. Messinger/William Flanigen				
<b>Attorney Docket Number:</b>	2855.004000B				
Filed as Large Entity					
<b>Utility under 35 USC 111(a) Filing Fees</b>					
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>	
<b>Basic Filing:</b>					
<b>Pages:</b>					
<b>Claims:</b>					
<b>Miscellaneous-Filing:</b>					
<b>Petition:</b>					
<b>Patent-Appeals-and-Interference:</b>					
<b>Post-Allowance-and-Post-Issuance:</b>					
<b>Extension-of-Time:</b>					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	18614763
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/William Flanigen
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	28-MAR-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	16:11:37
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	2604
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000B_8SIDS.pdf	1402750	yes	12
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<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Miscellaneous Incoming Letter	1	2	
		Transmittal Letter	3	9	
		Information Disclosure Statement (IDS) Form (SB08)	10	12	
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<b>Information:</b>					
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<b>Information:</b>					
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<b>Information:</b>					
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<b>Information:</b>					
6	Non Patent Literature	NPL5_NFOA_14134926_02272014.pdf	531170	no	16
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<b>Information:</b>					
7	Non Patent Literature	NPL6_Modestino_Declaration_95001533_11292013.pdf	4223192	no	51
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<b>Information:</b>					

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<b>Information:</b>					
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<b>Information:</b>					
11	Non Patent Literature	NPL10_PO_Suppl_Reply_to_ACP_95001923_02272014.pdf	504577 08ded6d7e30d71a4fd7c70a61c43906f351f29e2	no	10
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<b>Information:</b>					
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<b>Information:</b>					
13	Non Patent Literature	NPL12_Corrected_PO_Request_to_Reopen_Prosecution_95001533_03112014.pdf	3524746 aa66b30f60e7e142ff53ce973930fdcc6cf9df18	no	48
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<b>Information:</b>					
14	Non Patent Literature	NPL13_Corrected_PO_Request_to_Reopen_Prosecution_95001544_03112014.pdf	2974399 f379fb10e4fa629745fbc0328ba2f96ae5e67535	no	39
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<b>Information:</b>					
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<b>Information:</b>					

Total Files Size (in bytes):

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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



March 28, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
**Attn: Mail Stop Amendment**

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p);
2. Eighth Supplemental Information Disclosure Statement;
3. Form PTO/SB/08a (1 sheet) listing 10 documents (**US1-US10**);
4. Form PTO/SB/08b (2 sheets) listing 14 documents (**NPL1-NPL14**); and
5. Copies of cited documents (**NPL1-NPL14**).

***The above-listed documents are filed electronically through EFS-Web.***

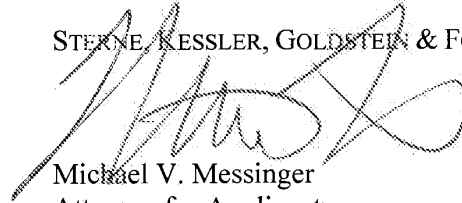
In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
March 28, 2014  
Page 2

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/wcf  
Enclosures

1823870\_1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Eighth Supplemental Information Disclosure Statement**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	<i>Inter Partes</i> Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	<i>Inter Partes</i> Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	<i>Ex Parte</i> Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	<i>Inter Partes</i> Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	<i>Inter Partes</i> Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	<i>Inter Partes</i> Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Patent Owner's Request for Rehearing Under 37 C.F.R. § 41.79 mailed 02/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Patent Owner's Corrected Request to Reopen Prosecution under 37 C.F.R. § 41.77(b) filed 03/11/2014

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Reply to Action Closing Prosecution filed 02/27/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to reexaminations are listed as **NPL6-NPL14**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014

4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent and PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Copies of documents **NPL1-NPL14** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents and patent application publications cited as documents **US1-US10** on the attached IDS Forms are submitted.

Applicants submit herewith Office Actions from the following co-pending, commonly-assigned U.S. Patent Application Nos.:

Document **NPL1** is a copy of a Notice of Allowance mailed February 20, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/101,994.

Document **NPL2** is a copy of a Supplemental Notice of Allowance mailed February 25, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/857,238.

Document **NPL3** is a copy of a Non-Final Office Action mailed February 25, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,933.

Document **NPL4** is a copy of a Non-Final Office Action mailed February 26, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/033,245.

Document **NPL5** is a copy of a Non-Final Office Action mailed February 27, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/134,926.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619); and 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), in accordance with MPEP 2001.06(b), and indicate in the next communication from the

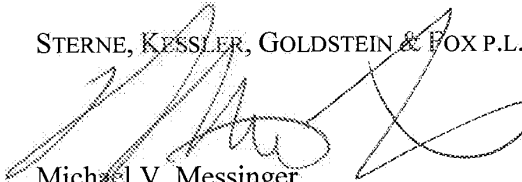
office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date:

March 28, 2014

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978
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26111 7590 02/19/2014  
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 1100 NEW YORK AVENUE, N.W.  
 WASHINGTON, DC 20005

EXAMINER
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SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2115

MAIL DATE	DELIVERY MODE
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02/19/2014	PAPER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115	<b>AIA (First Inventor to File) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 11/6/13 RCE.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5)  Claim(s) See Continuation Sheet is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6)  Claim(s) \_\_\_\_\_ is/are allowed.
- 7)  Claim(s) 1,6-20,25-30,33,37-48,51,55-66,69,73-84,87,91-102,105,109-120,123 and 127-134 is/are rejected.
- 8)  Claim(s) 2-4 and 22-24 is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a)  All    b)  Some\*\*    c)  None of the:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
Paper No(s)/Mail Date 11/6/13,12/30/13,2/12/14
- 3)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 4)  Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1-4,6-20,22-30,33,37-48,51,55-66,69,73-84,87,91-102,105,109-120,123 and 127-134.

1. The present application is being examined under the pre-AIA first to invent provisions.

### **DETAILED ACTION**

2. Claims 1-4, 6-20, 22-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123, 127-134 are presented for examination.

#### ***Claim Rejections - 35 USC § 102***

3. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.
4. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2115

5. Claims 1, 6-7, 9, 12, 14-22, 25-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Settsu et al (US Patent 6,374,353<sup>1</sup>; hereinafter Settsu).

6. As per claim 1, Settsu disclose a method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a list of boot data for booting the computer system, wherein at least a portion of boot data is associated with the list of boot data [col. 3, lines 56-59; required modules are listed; col. 16, lines 26-30; col. 16, line 57 -- col. 17, line 20];

loading the at least a portion of boot data into a memory [col. 3, lines 33-38; col. 5, lines 28-31; col. 18, lines 25-27; loading a portion of boot data into a memory];

accessing the loaded at least a portion of boot data in a compressed form from the memory [col. 14, line 25 -- col. 15, line 4; clearly accessing the loaded boot data in a compressed form from the memory as a decompression processing module utilized]; and

decompressing, on a just-in-time basis, the at least a portion of boot data in compressed form from the memory at a rate that decreases boot time relative to loading the operating system in an uncompressed form, wherein the at least a portion of decompressed boot data is a portion of

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<sup>1</sup> Prior art cited by applicant in Information Disclosure Statement submitted on 11/6/13.

Art Unit: 2115

the operating system for the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly the invention provides an advantage of being able to reduce the time required for booting up the information processing apparatus in comparison to a conventional method of loading an operating system in an uncompressed form].

7. As per claim 6, Settsu discloses a method, comprising:

maintaining a list of compressed boot data for booting a computer system [col. 3, lines 56-59; required modules are listed; col. 16, lines 26-30; col. 16, line 57 -- col. 17, line 20];

storing compressed boot data associated with the list of compressed boot data on a non-volatile memory [col. 3, lines 33-38; col. 5, lines 28-31; col. 13, lines 63-65; col. 14, lines 30-32, 58-63; compressed files are stored in a file system of a boot device 3];

loading the compressed boot data from the non-volatile memory to a second memory [Fig. 1; col. 14, lines 25-67; loading the compressed boot data from the boot device 3 to the memory 2];

accessing the compressed boot data from the second memory [Fig. 1; col. 14, line 25 -- col. 15, line 4; clearly accessing the loaded boot data in a compressed form from the memory 2

as a decompression processing module utilized];

decompressing the compressed boot data to provide decompressed boot data [col. 14, line 25 -- col. 15, line 4; clearly accessing the loaded boot data in a compressed form from the memory as a decompression processing module utilized]; and

utilizing the decompressed boot data to boot the computer system, wherein the accessing and the decompressing occur within a period of time which is less than a time to access the boot data from the non-volatile memory in an uncompressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly the invention provides an advantage of being able to reduce the time required for booting up the information processing apparatus in comparison to a conventional method of loading an operating system in an uncompressed form].

8. As per claim 7, Settsu discloses A system comprising:

a processor [col. 12, lines 10-13; col. 15, line 65 – col. 16, line 1; the CPU];

a memory [Fig. 1; memory 2]; and

a non-volatile memory device configured to store boot data in compressed form for booting the system and logic code associated with the processor, the logic code including instructions executable by the processor for maintaining a list of boot data used for booting the system [Fig. 1; col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; compressed files are stored in a file system of a boot device 3; required modules are listed],

wherein the processor is configured to load at least a portion of the boot data in compressed form into the memory, to access the at least a portion of the boot data in compressed form, and to decompress the at least a portion of the boot data in compressed form at a rate that decreases boot time relative to booting the system with uncompressed boot data to boot the system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly accessing the loaded boot data in a compressed form from the memory 2 as a decompression processing module utilized; clearly the invention provides an advantage of being able to reduce the time required for booting up the information processing apparatus in comparison to a conventional method of loading an operating system in an uncompressed form].

9. As per claim 9, Settsu discloses a method of loading an operating system for booting a computer system, comprising:

storing substantially all of the operating system in compressed form on a non-volatile memory [Fig. 1; boot device 3 stores all of the operating system in compressed form; col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

loading a first portion of the operating system in compressed form from the non-volatile memory to a second memory [Fig. 1; col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; only a first portion of the operating system is loaded in compressed form from the boot device 3 to a secondary memory 2];

accessing the first portion from the second memory in compressed form [Fig. 1; col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly the loaded first portion from the memory 2 in compressed form is accessed];

decompressing the first portion to provide a decompressed first portion of the operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly a decompression processing module is utilized];



utilizing the decompressed first portion to partially boot the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly booting the system partially with the first portion];

loading a second portion of the operating system in compressed form from the non-volatile memory to the second memory [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly the system will not boot successfully with the first portion of the operating system and therefore it will need to load a second or remaining portion of the operating system];

accessing the second portion from the memory in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; same as in the case of the first portion];

decompressing the second portion to provide a decompressed second portion of the operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; same as in the case of the first portion]; and

utilizing the decompressed second portion to further partially boot the computer system, wherein the first and second portions are accessed and decompressed at a rate that is faster than accessing the first and second portions from the non-volatile memory in uncompressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; clearly accessing the loaded boot data in a compressed form from the memory 2 as a decompression processing module utilized; clearly the invention provides an advantage of being able to reduce the time required for booting up the information processing apparatus in comparison to a conventional method of loading an operating system in an uncompressed form].

10. As per claim 12, Settsu discloses a method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in compressed form associated with a boot data list from a non-volatile boot device into a memory upon initialization of the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

accessing the boot data in compressed form from the memory [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

decompressing the boot data in compressed form accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form to provide decompressed boot data [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18]; and

utilizing the decompressed boot data to load the operating system for the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

11. As per claim 14, Settsu discloses a method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a boot data list [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

loading boot data associated with the boot data list from a non-volatile boot device into a memory as compressed boot data upon initialization of the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30;

col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

accessing the compressed boot data from the memory [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18]; and

decompressing, on a just-in-time basis, the compressed boot data accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

12. As per claim 15, Settsu discloses A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein at least a portion of the boot data is in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18];

loading the boot data into a memory [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18]; and

servicing requests for the boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing the compressed boot data and decompressing the compressed boot data at a rate that decreases an overall boot time relative to loading the operating system in uncompressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

13. As per claim 8, Settsu discloses a data compression engine, coupled to the non-volatile memory, configured to compress boot data to provide the boot data in compressed form; and a data compression encoder, coupled to the data compression engine, configured to compress additional boot data [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

14. As per claim 10, Settsu discloses compressing additional boot data to provide additional compressed boot data; and storing the additional boot data in the non-volatile memory [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

15. As per claim 11, Settsu discloses compressing the additional boot data with a data compression encoder [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

16. As per claim 13, Settsu discloses compressing additional boot data with a random access encoder [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

17. As per claim 16, Settsu discloses that the boot data comprises program code associated with the operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

18. As per claims 17, 37, 55 and 91, Settsu discloses that the operating system comprises multiple files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

19. As per claims 18, 38, 56, 74, 92, 110 and 128, Settsu discloses that the boot data comprises program code associated with one or more application programs of the computer system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

20. As per claims 19, 39, 57, 75, 93, 111 and 129, Settsu discloses that the boot data comprises program code associated with a combination of the operating system and one or more application programs [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

21. As per claims 20, 40, 58, 76, 94, 112 and 130, Settsu discloses that the one or more application programs comprises multiple files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

22. As per claim 25, Settsu discloses maintaining a boot data list [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

23. As per claim 26, Settsu discloses accessing the boot data from a non-volatile memory device [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

24. As per claim 27, Settsu discloses that the at least a portion of the boot data in compressed form represents a plurality of files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-

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14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

25. As per claim 28, Settsu discloses that the at least a portion of the boot data in compressed form comprises program code associated with the operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

26. As per claim 29, Settsu discloses comprising the at least a portion of the boot data with one or more advanced compression encoders to provide the at least a portion of the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

27. As per claim 30, Settsu discloses decompressing the at least a portion of the boot data in compressed form utilizing one or more advanced decompression decoders [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

28. As per claims 33, 69, 87 and 105, Settsu discloses that the memory is physical [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].



29. As per claims 41, 59 and 77, Settsu discloses accessing the at least a portion of the boot data in compressed form via direct memory access [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

30. As per claims 42, 60 and 78, Settsu discloses Huffman encoding is utilized to encode the at least a portion of the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Huffman encoding is well known in the art].

31. As per claims 43, 61 and 79, Settsu discloses Lempel-Ziv encoding is utilized to encode the at least a portion of the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Lempel-Ziv encoding is well known in the art].

32. As per claims 44, 62 and 79, Settsu discloses that a plurality of encoders are utilized to encode the at least a portion of the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

33. As per claims 45, 63, 73, 81 and 99, Settsu discloses that the compressed boot data represents a plurality of files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col.

14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

34. As per claims 46, 64, 82 and 100, Settsu discloses that the compressed boot data comprises program code associated with an operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

35. As per claims 47, 65, 83 and 101, Settsu discloses compressing the boot data with one or more advanced compression encoders to provide the compressed boot data [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

36. As per claims 48, 66, 84 and 102, Settsu discloses decompressing the compressed boot data with one or more advanced decompression decoders [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

37. As per claim 49, Settsu discloses that the second memory is physical [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

38. As per claim 95, Settsu discloses accessing the first portion from the second memory via direct access [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

39. As per claim 96, Settsu discloses that Huffman encoding is utilized to encode the operating system in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Huffman encoding is well known in the art].

40. As per claim 97, Settsu discloses that Lempel-Ziv encoding is utilized to encode the operating system in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Lempel-Ziv encoding is well known in the art].

41. As per claim 98, Settsu discloses that a plurality of encoders are utilized to encode the operating system in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

42. As per claims 109 and 127, Settsu discloses that the operating system is comprised of multiple files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

43. As per claims 113 and 131, Settsu discloses accessing the boot data in compressed form from the memory via direct memory access [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

44. As per claims 114 and 132, Settsu discloses that Huffman encoding is utilized to encode the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Huffman encoding is well known in the art].

45. As per claims 115 and 133, Settsu discloses that Lempel-Ziv encoding is utilized to encode the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18; Lempel-Ziv encoding is well known in the art].

46. As per claims 116 and 134, Settsu discloses that a plurality of encoders are utilized to encode the boot data in compressed form [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

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47. As per claim 117, Settsu discloses that the compressed boot data represents a plurality of files [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

48. As per claim 118, Settsu discloses that the boot data comprises program code associated with the operating system [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

49. As per claim 119, Settsu discloses compressing the boot data with one or more advanced compression encoders to provide the compressed data [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

50. As per claim 120, Settsu discloses decompressing the compressed boot data with one or more advanced decoders [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

51. As per claim 121, Settsu discloses that the memory is physical [col. 1, lines 44-50; col. 3, lines 32-38, 56-59; col. 4, lines 7-14; col. 14, line 25 -- col. 15, line 4; col. 16, lines 7-30; col. 16, line 59 – col. 17, line 1; col. 18, lines 11-18].

*Allowable Subject Matter*

52. Claims 2-4 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**DETAILED ACTION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SURESH SURYAWANSHI whose telephone number is (571)272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2115

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	2

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 13/154,211, mailed November 26, 2013, 4 pages.	
	NPL2	Copy of Notice of Allowance for U.S. Appl. No. 13/101,994, mailed December 2, 2013, 7 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 11/553,419, mailed December 18, 2013, 6 pages.	
	NPL4	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,716, mailed December 20, 2013, 12 pages.	
	NPL5	Copy of Notice of Allowance for U.S. Appl. No. 14/035,712, mailed December 20, 2013, 8 pages.	
	NPL6	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,719, mailed December 20, 2013, 11 pages.	
	NPL7	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed November 13, 2013, 8 pages.	
	NPL8	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed November 21, 2013, 10 pages.	
	NPL9	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed November 27, 2013, 10 pages.	
	NPL10	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed December 5, 2013, 2 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	02/12/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL11	U.S. Patent Application No. 14/033,245, FALLON et al., "Systems and Methods for Video and Audio Data Storage and Distribution," filed September 20, 2013.	
	NPL12	U.S. Patent Application No. 14/035,712, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL13	U.S. Patent Application No. 14/035,719, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL14	U.S. Patent Application No. 14/035,716, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL15	U.S. Patent Application No. 14/035,561, James J. FALLON, "Data Compression Systems and Methods," filed September 24, 2013.	

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	02/12/2014
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Fourth Supplemental Information Disclosure Statement**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Petition to Expunge Third Party Requester's Improper Submission of Declarations and Strike Comments Directed to Examiner's Determination filed 06/26/2013; Patent Owner's Comments in Response to Examiner's Determination filed 05/10/2013; Examiner's Determination Under 37 C.F.R. § 41.77(d) mailed 04/10/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Decision on Petition Under 37 C.F.R. § 1.183 to Request Examiner Enter Evidence mailed 03/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Examiner's Answer to Appeal Brief mailed 03/14/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Examiner's Answer to Appeal Brief mailed 10/01/2012

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	Right of Appeal Notice mailed 08/15/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Response to Office Action filed 04/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Response to Office Action filed 05/06/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	Right of Appeal Notice mailed 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	Right of Appeal Notice mailed 08/16/2013

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed at NPL13-NPL18.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Notice of Appeal Filed
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Notice of Appeal Filed
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Notice of Appeal Filed

5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08ba equivalent and PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed after the mailing date of a first Office Action on the merits. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Documents US1-US2 are cited on the attached form PTO/SB/08A. Documents NPL1-NPL18 are cited on the attached form PTO/SB/08B. In accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents cited on the attached IDS Forms are submitted.

Applicants submit herewith actions from the following co-pending, commonly assigned U.S. Patent Application Nos.:

Document NPL11 is a copy of a Notice of Allowance mailed on July 11, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,211.

Document NPL12 is a copy of a Notice of Allowance mailed on August 2, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,239.

The identification of this action is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), and 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: 9/6/2013

1100 New York Avenue, N.W.  
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/Suresh Suryawanshi/

02/12/2014

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **SYSTEMS AND METHODS FOR  
ACCELERATED LOADING OF  
OPERATING SYSTEMS AND  
APPLICATION PROGRAMS**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Sixth Supplemental Information Disclosure Statement**

*Mail Stop Amendment*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Decision on Petition Under 37 C.F.R. § 1.181 mailed 09/23/2013; Petition to Expunge Third Party Requester's Improper Submission of Declarations and Strike Comments Directed to Examiner's Determination filed 06/26/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Decision on Appeal mailed 11/01/2013

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Reply to Action Closing Prosecution filed 11/04/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Reply to Action Closing Prosecution filed 10/21/2013; Action Closing Prosecution mailed 09/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	Notice of Intent to Issue a Reexamination Certificate mailed 11/27/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	Notice of Intent to Issue a Reexamination Certificate mailed 11/21/2013

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./



Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed as **NPL7-NPL10**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Notice of Appeal Filed
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Notice of Appeal Filed
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Notice of Appeal Filed

5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Form PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

Copies of documents **NPL1-NPL10** are submitted. However, copies of documents **NPL11-NPL15**, cited on the attached IDS Forms, are not provided in accordance with the U.S. Patent and Trademark Office Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

Applicants submit herewith actions from the following co-pending, commonly assigned U.S. Patent Application Nos.:

Document **NPL1** is a copy of a Supplemental Notice of Allowability mailed November 26, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,211.

Document **NPL2** is a copy of a Notice of Allowance mailed December 2, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/101,994.

Document **NPL3** is a copy of a Notice of Allowance mailed December 18, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,419.

Document **NPL4** is a copy of a Non-Final Office Action mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,716.

Document **NPL5** is a copy of a Notice of Allowance mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,712.

Document **NPL6** is a copy of a Non-Final Office Action mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,719.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267 (now U.S. Patent No. 7,181,608), filed February 2, 2001; and 11/551,211 (now U.S. Patent No. 8,112,619), filed October 19, 2006, in accordance with MPEP 2001.06(b), and indicate in the next communication from the

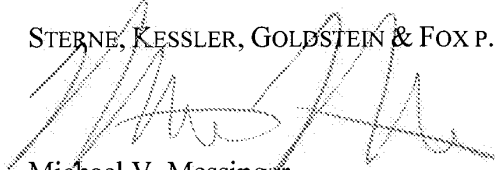
office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDBSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: December 30, 2013


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1786171\_1

/Suresh Suryawanshi/

02/12/2014


ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014					
	1	✓	✓	=	=	✓					
	2		✓	=	=	○					
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	5		✓	-	-	-					
	6		✓	=	=	✓					
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	32			✓	-	-					
	33			=	=	✓					
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	35			✓	-	-					
	36			✓	-	-					

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014					
	37			=	=	✓					
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	69			=	=	✓					
	70			✓	-	-					
	71			✓	-	-					
	72			✓	-	-					


<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014					
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	74			=	=	✓					
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	104			✓	-	-					
	105			=	=	✓					
	106			✓	-	-					
	107			✓	-	-					
	108			✓	-	-					



<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013	02/13/2014			
	109			=	=	✓			
	110			=	=	✓			
	111			=	=	✓			
	112			=	=	✓			
	113			=	=	✓			
	114			=	=	✓			
	115			=	=	✓			
	116			=	=	✓			
	117			=	=	✓			
	118			=	=	✓			
	119			=	=	✓			
	120			=	=	✓			
	121			✓	-	-			
	122			✓	-	-			
	123			=	=	✓			
	124			✓	-	-			
	125			✓	-	-			
	126			✓	-	-			
	127			=	=	✓			
	128			=	=	✓			
	129			=	=	✓			
	130			=	=	✓			
	131			=	=	✓			
	132			=	=	✓			
	133			=	=	✓			
	134			=	=	✓			

Substitute for form 1449/PTO  <b>SEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				<i>Complete if Known</i>	
				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	1	Attorney Docket Number	2855.004000B

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	US1	5,784,631		07-21-1998	Wise	
	US2	5,807,036		09-15-1998	Lostien	
	US3	5,856,797		01-05-1999	Kawauchi	
	US4	6,009,491		12-28-1999	Roppel et al.	
	US5	7,327,287 B2		02-05-2008	Martinian et al.	
	US6	7,711,938 B2		05-04-2010	Wise et al.	
	US7	8,004,431 B2		08-23-2011	Reznik	
	US8	2001/0019630 A1		09-06-2001	Johnson	

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		Country Code <sup>3</sup>	Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	02/12/2014
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	NPL1	Opinion, with Errata, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Case Nos. 13-1092, -1093, -1095, -1097, -1098, -1099, -1100, -1101, and -1103, United States Court of Appeals for the Federal Circuit, filed January 27, 2014, 41 pages.	
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	NPL3	Copy of Final Office Action for U.S. Appl. No. 12/690,125, mailed December 27, 2013, 12 pages.	
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	NPL8	Patent Owner's Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, filed December 2, 2013, 57 pages.	
	NPL9	Patent Owner's Request to Reopen Prosecution Before the Examiner under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, filed December 2, 2013, 33 pages.	
	NPL10	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 2, 2014, 8 pages.	

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Sheet	2	of	3	Attorney Docket Number	2855.004000B

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	NPL11	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 2, 2014, 8 pages.	
	NPL12	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 2, 2014, 10 pages.	
	NPL13	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed January 8, 2014, 2 pages.	
	NPL14	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed January 8, 2014, 3 pages.	
	NPL15	Examiner's Determination Under 37 C.F.R. § 41.77(d) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed January 14, 2014, 11 pages.	
	NPL16	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL17	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	
	NPL18	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.	
	NPL19	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL20	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	02/12/2014
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				First Named Inventor	James J. FALLON
				Art Unit	2115
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Sheet	3	of	3		
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	NPL21	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.			
	NPL22	Court Docket History for 6:10-cv-00493-LED-JDL, Realtime Data, LLC d/b/a IXO, v. T-Mobile, USA Inc., downloaded January 30, 2014, 78 pages.			
	NPL23	Court Docket History for 1:11-cv-06696-RJH, Realtime Data, LLC d/b/a IXO, v. Morgan Stanley et al., downloaded January 30, 2014, 80 pages.			
	NPL24	Court Docket History for 1:11-cv-06697-UA, Realtime Data, LLC d/b/a IXO, v. CME Group Inc. et al., downloaded January 30, 2014, 105 pages.			
	NPL25	Court Docket History for 1:11-cv-06698-UA, Realtime Data, LLC d/b/a IXO, v. Thomson Reuters et al., downloaded January 30, 2014, 59 pages.			
	NPL26	U.S. Patent Application No. 14/134,926, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.			
	NPL27	U.S. Patent Application No. 14/134,933, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.			

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## BIB DATA SHEET

CONFIRMATION NO. 8978

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.		
13/118,122	05/27/2011	713	2115	2855.004000B		
<b>APPLICANTS</b>						
<b>INVENTORS</b>						
James J. Fallon, Armonk, NY; John Buck, Oceanside, NY; Paul F. Pickel, Bethpage, NY; Stephen J. McErlain, New York, NY;						
<b>** CONTINUING DATA *****</b>						
This application is a CON of 11/551,211 10/19/2006 PAT 8112619 which is a CON of 09/776,267 02/02/2001 PAT 7181608 which claims benefit of 60/180,114 02/03/2000 Yes /SKS/						
<b>** FOREIGN APPLICATIONS *****</b>						
None /SKS/						
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b>						
06/10/2011						
Foreign Priority claimed 35 USC 119(a-d) conditions met Verified and Acknowledged	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No /SURESH SURYAWANSHI/ Examiner's Signature	<input type="checkbox"/> Met after Allowance Initials	<b>STATE OR COUNTRY</b> NY	<b>SHEETS DRAWINGS</b> 13	<b>TOTAL CLAIMS</b> 102 <sup>1-</sup>	<b>INDEPENDENT CLAIMS</b> 7 <sup>1-</sup>
<b>ADDRESS</b>			/SKS/		/SKS/	
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 UNITED STATES			2/13/14		2/13/14	
<b>TITLE</b>						
SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS						
<b>FILING FEE RECEIVED</b> 11680	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit			

<b>Search Notes</b>  	<b>Application/Control No.</b>  13118122	<b>Applicant(s)/Patent Under Reexamination</b>  FALLON ET AL.
	<b>Examiner</b>  SURESH SURYAWANSHI	<b>Art Unit</b>  2115

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
713	2	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS
Search updated		2/11/14, 2/12/14	SKS

SEARCH NOTES		
Search Notes	Date	Examiner
EAST; USPAT; US-PGPUB; EPO; JPO; IBM_TDB; NPL	5/11/12, 5/14/12	SKS
Search updated	12/26/12	SKS
Search updated	7/16/13	SKS
Search updated	9/16/13	SKS
Claim language searched in US-PGPUB	9/16/13	SKS
Search updated	2/11/14, 2/12/14	SKS

INTERFERENCE SEARCH	

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US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
713	1	5/11/12, 5/14/12	SKS
711	113	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS
Search updated		2/11/14, 2/12/14	SKS

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**EAST Search History****EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	3	("6336153" "6374353" "8553759").pn.	USPAT	OR	OFF	2014/02/11 14:43
S2	31	("6374353").URPN.	USPAT	OR	OFF	2014/02/11 15:35
S3	5	("5307497"   "5355498"   "5918048"   "5933631"   "6052778").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/02/11 15:41
S4	136	boot adj1 device with hard adj1 (disk drive)	USPAT	OR	OFF	2014/02/12 10:59
S5	2	boot adj1 device with hard adj1 (disk drive) with non\$1volatile	USPAT	OR	OFF	2014/02/12 10:59
S6	17	updat\$3 near3 list near2 boot	USPAT	OR	OFF	2014/02/12 12:48
S7	2	updat\$3 near3 boot adj1 configuration adj1 data	USPAT	OR	OFF	2014/02/12 16:46
S8	3	updat\$3 near3 boot adj1 configuration adj1 data	US-PGPUB	OR	OFF	2014/02/12 16:50
S9	0	updat\$3 near3 boot adj1 configuration adj1 data	EPO; JPO; IBM_TDB	OR	OFF	2014/02/12 16:50
S10	1	modify\$3 near3 boot adj1 configuration adj1 data	USPAT	OR	OFF	2014/02/12 16:55
S11	5	modify\$3 near3 boot adj1 configuration adj1 data	US-PGPUB	OR	OFF	2014/02/12 16:55
S12	0	modify\$3 near3 boot adj1 configuration adj1 data	EPO; JPO; IBM_TDB	OR	OFF	2014/02/12 16:56
S13	7	("5784631" "5807036" "5856797" "6009491" "7327287" "7711938" "8004431").pn.	USPAT	OR	OFF	2014/02/12 17:10
S14	1	"20010019630"	US-PGPUB	OR	OFF	2014/02/12 17:12

2/ 12/ 2014 5:13:29 PM

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

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				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	3	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL11	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 2, 2014, 8 pages.	
	NPL12	Patent Owner's Petition Under 37 C.F.R. § 1.182 in Opposition to CME Group's Petition to Strike Patent Owner's Proposed New Claims, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 2, 2014, 10 pages.	
	NPL13	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed January 8, 2014, 2 pages.	
	NPL14	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed January 8, 2014, 3 pages.	
	NPL15	Examiner's Determination Under 37 C.F.R. § 41.77(d) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed January 14, 2014, 11 pages.	
	NPL16	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL17	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	
	NPL18	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 41.77(c), in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.	
	NPL19	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed January 22, 2014, 3 pages.	
	NPL20	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed January 22, 2014, 3 pages.	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>SEVENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	3	of	3	Attorney Docket Number	2855.004000B
<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published			T <sup>2</sup>
	NPL21	Patent Owner's Petition Under 37 C.F.R. § 1.181 to Strike Third Party Requester's Improper Response Under 37 C.F.R. § 1.132, in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed January 22, 2014, 3 pages.			
	NPL22	Court Docket History for 6:10-cv-00493-LED-JDL, Realtime Data, LLC d/b/a IXO, v. T-Mobile, USA Inc., downloaded January 30, 2014, 78 pages.			
	NPL23	Court Docket History for 1:11-cv-06696-RJH, Realtime Data, LLC d/b/a IXO, v. Morgan Stanley et al., downloaded January 30, 2014, 80 pages.			
	NPL24	Court Docket History for 1:11-cv-06697-UA, Realtime Data, LLC d/b/a IXO, v. CME Group Inc. et al., downloaded January 30, 2014, 105 pages.			
	NPL25	Court Docket History for 1:11-cv-06698-UA, Realtime Data, LLC d/b/a IXO, v. Thomson Reuters et al., downloaded January 30, 2014, 59 pages.			
	NPL26	U.S. Patent Application No. 14/134,926, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.			
	NPL27	U.S. Patent Application No. 14/134,933, FALLON, et al., "System and Methods for Video and Audio Data Distribution," filed December 19, 2013.			

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Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	18188429
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/William Flanigen
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	12-FEB-2014
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	16:10:50
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	NPL1_CAFCA_Opinion_with_Errata_01272014.pdf	280049 <small>9ceff362f26c5d3e56c906207acc4687e95094</small>	no	41

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2	Non Patent Literature	NPL2_SNOA_13154211_12192013.pdf	142681	no	4
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<b>Warnings:</b>					
<b>Information:</b>					
4	Non Patent Literature	NPL4_Corrected_Notice_of_Allowability_11553419_01142014.pdf	81773	no	2
			5f298ada6e96a054614761f32074273c8dad65		
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5	Non Patent Literature	NPL5_NOA_14035561_01162014.pdf	472710	no	9
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<b>Information:</b>					
6	Non Patent Literature	NPL6_Corrected_Notice_of_Allowability_11553419_01312014.pdf	81748	no	2
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7	Non Patent Literature	NPL7_PO_Request_to_Reopen_Prosecution_95001533_12022013.pdf	2635287	no	41
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8	Non Patent Literature	NPL8_PO_Request_to_Reopen_Prosecution_95001581_12022013.pdf	3818680	no	57
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10	Non Patent Literature	NPL10_PO_Petition_95001533_01022014.pdf	413963	no	8
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<b>Information:</b>					

11	Non Patent Literature	NPL11_PO_Petition_95001544_01022014.pdf	489952 e0ecf85b4ec041c9372d2146ecf43802158ff c58	no	8
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12	Non Patent Literature	NPL12_PO_Petition_95001581_01022014.pdf	602107 4762c199c04d7016fe13e0166520b71bb7a 174bc	no	10
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13	Non Patent Literature	NPL13_Reexam_Certificate_95001926_01082014.pdf	161501 da796f2645c268f2e48995515f84ad0295dc 7792	no	2
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15	Non Patent Literature	NPL15_Examiners_Determination_95001517_01142014.pdf	430915 4e90804f15bb2f36ca8354bc75c7f22af0e53 3eb	no	11
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16	Non Patent Literature	NPL16_PO_Petition_1_95001533_01222014.pdf	180700 64dea460e6a02680090e78d8740ab35049 05a84	no	3
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17	Non Patent Literature	NPL17_PO_Petition_1_95001544_01222014.pdf	168213 70351bce1472f47e7c4f3cc8468cf49b71f95 3f9	no	3
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18	Non Patent Literature	NPL18_PO_Petition_1_95001581_01222014.pdf	139339 fb0203c32a43ccdb85be279c7a478a9f1a8b f664	no	3
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19	Non Patent Literature	NPL19_PO_Petition_2_95001533_01222014.pdf	165413 174419facd0cc5908e03d9ce964f9a81408 e2a5	no	3
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<b>Information:</b>					



20	Non Patent Literature	NPL20_PO_Petition_2_950015 44_01222014.pdf	146892 8fb4c97282863132a65885fc96bc8a183cc8e8a5	no	3
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<b>Information:</b>					
21	Non Patent Literature	NPL21_PO_Petition_2_950015 81_01222014.pdf	126169 80e1c8842bfcaaf1e673d628094778edcc0acab	no	3
<b>Warnings:</b>					
<b>Information:</b>					
22	Non Patent Literature	NPL22_MetroPCS_Court_Docket_Listing_01302014.pdf	614866 9c803dca7ad3d225e6f1045a23e4db047ceafc3c	no	78
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23	Non Patent Literature	NPL23_Morgan_Stanley_Court_Docket_Listing_01302014.pdf	976198 1f3f5f9484e03f7995dc3655863a7b173687e6d5	no	80
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<b>Information:</b>					
24	Non Patent Literature	NPL24_CME_Court_Docket_Listing_01302014.pdf	783350 c1ffa6fc6df0d16686ae07a9f4c71212413fed	no	105
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25	Non Patent Literature	NPL25_Thompson_Reuters_Court_Docket_Listing_01302014.pdf	772832 5769c695e5531cda945fd4c13f0ebc6e669b4368	no	59
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26		2855004000B_7SIDS.pdf	1915656 7163ff769b8f6669ef4d0642906e29124428434	yes	14
	<b>Multipart Description/PDF files in .zip description</b>				
	<b>Document Description</b>	<b>Start</b>	<b>End</b>		
	Miscellaneous Incoming Letter	1	2		
	Transmittal Letter	3	10		
	Information Disclosure Statement (IDS) Form (SB08)	11	14		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				18281878	

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



US007161506C2

(12) **INTER PARTES REEXAMINATION CERTIFICATE** (784th)

**United States Patent**

**Fallon**

(10) **Number:** **US 7,161,506 C2**

(45) **Certificate Issued:** **\*Jan. 8, 2014**

(54) **SYSTEM AND METHODS FOR DATA COMPRESSION SUCH AS CONTENT DEPENDENT DATA COMPRESSION**

(75) Inventor: **James J. Fallon**, Armonk, NY (US)

(73) Assignee: **Realtime Data, LLC**, New York, NY (US)

(51) **Int. Cl.**  
*H03M 7/34* (2006.01)

(52) **U.S. Cl.**  
USPC ..... **341/51; 341/79**

(58) **Field of Classification Search**  
None  
See application file for complete search history.

**Reexamination Request:**  
No. 95/001,926, Mar. 2, 2012

**Reexamination Certificate for:**  
Patent No.: **7,161,506**  
Issued: **Jan. 9, 2007**  
Appl. No.: **10/668,768**  
Filed: **Sep. 22, 2003**

Reexamination Certificate C1 7,161,506 issued May 22, 2012

(\*) Notice: This patent is subject to a terminal disclaimer.

**Related U.S. Application Data**

(63) Continuation of application No. 10/016,355, filed on Oct. 29, 2010, now Pat. No. 6,624,761, which is a continuation-in-part of application No. 09/705,446, filed on Nov. 3, 2000, now Pat. No. 6,309,424, which is a continuation of application No. 09/210,491, filed on Dec. 11, 1998, now Pat. No. 6,195,024.

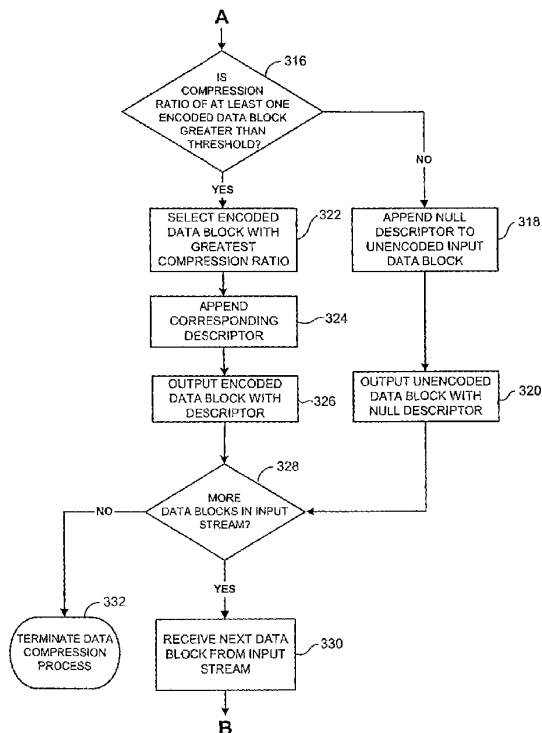
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/001,926, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

*Primary Examiner* — Christina Y Leung

(57) **ABSTRACT**

Systems and methods for providing fast and efficient data compression using a combination of content independent data compression and content dependent data compression. In one aspect, a method for compressing data comprises the steps of: analyzing a data block of an input data stream to identify a data type of the data block, the input data stream comprising a plurality of disparate data types; performing content dependent data compression on the data block; if the data type of the data block is identified; performing content independent data compression on the data block, if the data type of the data block is not identified.



1  
INTER PARTES  
REEXAMINATION CERTIFICATE  
ISSUED UNDER 35 U.S.C. 316

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

**Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.**

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims 1-5, 8, 9, 11, 17, 20-23, 27, 39, 43, 69-73, 79, 81, 82, 84-90, 96 and 98 were previously cancelled.

Claims 91, 97 and 99 are determined to be patentable as amended.

New claims 100-105 are added and determined to be patentable.

Claims 6, 7, 10, 12-16, 18, 19, 24-26, 28-38, 40-42, 44-68, 74-78, 80, 83 and 92-95 were not reexamined.

91. The method of claim 86, further comprising:  
compressing said data block to provide said data block in said compressed form in accordance with said determination whether to compress said data block with content dependent data compression or said single data compression encoder, wherein said data block in said compressed form is provided by a lossy compression technique; and

*analyzing data within the data block to identify one or more data types of the data within the data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

97. The method of claim 86, further comprising:  
*analyzing data within the data block to identify one or more data types of the data within the data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block, and*  
wherein said single data compression encoder is lossless and at least one encoder associated with said content dependent data compression is lossy.

99. The method of claim 86, further comprising:  
*analyzing within the data block to identify one or more data types of the data within the data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block, and*  
wherein said single data compression encoder is lossless, at least one encoder associated with said content dependent data compression is lossless, and at least another one encoder associated with said content dependent data compression is lossy.

100. A computer implemented method comprising:  
*receiving, a data block, wherein the data block is included in a data stream;*

*analyzing data within the data block to identify one or more data types of the data within the data block;*

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*determining whether to output said data block in received form or in a compressed form; and*

*outputting the data block in received form or the compressed form based on the determination,*

5 *wherein outputting the data block in the compressed form comprises determining whether to compress the data block with a content dependent data compression encoder based on the type of the data block or to compress the data block with a single data compression encoder, and*

*wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

15 101. The computer implemented method of claim 100, further comprising:

*compressing the data block to provide the data block in the compressed form in accordance with the determination whether to compress the data block with a content dependent data compression encoder or the single data compression encoder, wherein the data block is compressed using a lossy compression encoder.*

20 102. The computer implemented method of claim 100, wherein the single data compression encoder is lossless and at least one encoder associated with the content dependent data compression is lossy.

25 103. The computer implemented method of claim 100, wherein the single data compression encoder is lossless, at least one encoder associated with the content dependent data compression is lossless, and at least another one encoder associated with the content dependent data compression is lossy.

30 104. A computer implemented method for compressing data, comprising:

35 *analyzing data within a data block of an input data stream to identify one or more data types of the data block, the input data stream comprising a plurality of disparate data types;*

*performing content dependent data compression with a content dependent data compression encoder if a data type of the data block is identified; and*  
*performing data compression with a single data compression encoder, if a data type of the data block is not identified,*

45 *wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

50 105. A computer implemented method comprising:  
*receiving a data block in an uncompressed form, said data block being included in a data stream;*

55 *analyzing data within the data block to determine a type of said data block; and*  
*compressing said data block to provide a compressed data block,*

*wherein if one or more encoders are associated to said type, compressing said data block with at least one of said one or more encoders, otherwise compressing said data block with a default data compression encoder, and*  
*wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

\* \* \* \* \*



US007378992C2

(12) **INTER PARTES REEXAMINATION CERTIFICATE (785th)**  
**United States Patent**  
**Fallon**

(10) **Number:** **US 7,378,992 C2**  
(45) **Certificate Issued:** **\*Jan. 8, 2014**

(54) **CONTENT INDEPENDENT DATA COMPRESSION METHOD AND SYSTEM**

(75) Inventor: **James J. Fallon**, Armonk, NY (US)

(73) Assignee: **Realtime Data, LLC**, New York, NY (US)

(51) **Int. Cl.**  
**H03M 7/34** (2006.01)

(52) **U.S. Cl.**  
USPC ..... **341/51; 341/65; 341/67; 341/87**

(58) **Field of Classification Search**  
None  
See application file for complete search history.

**Reexamination Request:**  
No. 95/001,928, Mar. 2, 2012

**Reexamination Certificate for:**  
Patent No.: **7,378,992**  
Issued: **May 27, 2008**  
Appl. No.: **11/400,533**  
Filed: **Apr. 8, 2006**

Reexamination Certificate C1 7,378,992 issued Oct. 4, 2012

(\*) Notice: This patent is subject to a terminal disclaimer.

**Related U.S. Application Data**

(63) Continuation of application No. 10/668,768, filed on Sep. 22, 2003, now Pat. No. 7,161,506, which is a continuation of application No. 10/016,355, filed on Oct. 29, 2001, now Pat. No. 6,624,761, which is a continuation-in-part of application No. 09/705,446, filed on Nov. 3, 2000, now Pat. No. 6,309,424, which is a continuation of application No. 09/210,491, filed on Dec. 11, 1998, now Pat. No. 6,195,024.

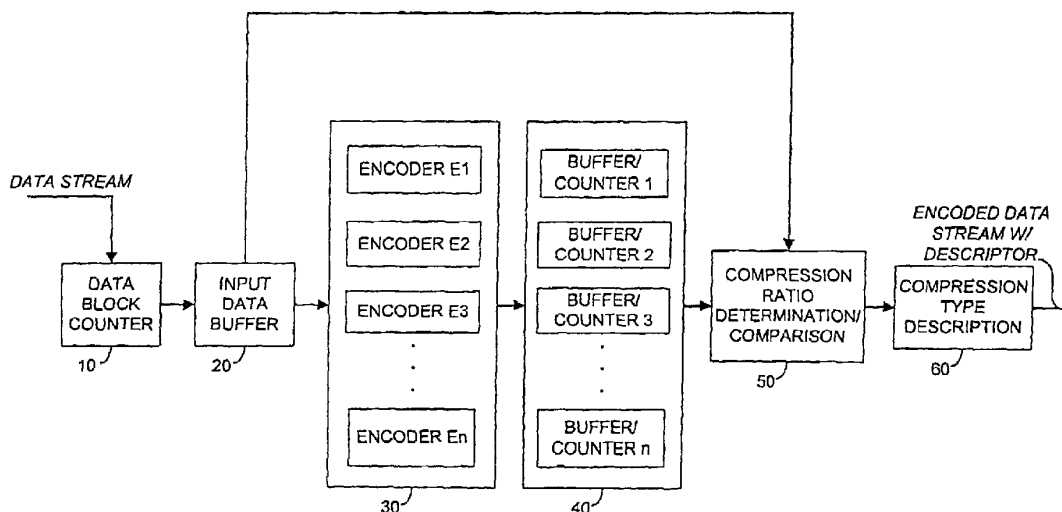
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/001,928, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

*Primary Examiner* — Christina Y Leung

(57) **ABSTRACT**

Systems and methods for providing fast and efficient data compression using a combination of content independent data compression and content dependent data compression. In one aspect, a method for compressing data comprises the steps of: analyzing a data block of an input data stream to identify a data type of the data block, the input data stream comprising a plurality of disparate data types; performing content dependent data compression on the data block, if the data type of the data block is identified, performing content independent data compression on the data block, if the data type of the data block is not identified.



**1**  
**INTER PARTES**  
**REEXAMINATION CERTIFICATE**  
**ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

**Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.**

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims 1, 3, 7, 9-15, 18-21, 26-29, 32, 33 and 36 were previously cancelled.

Claim 35 is determined to be patentable as amended.

New claims 46-51 are added and determined to be patentable.

Claims 2, 4, 5, 6, 8, 16, 17, 22-25, 30, 31, 34 and 37-45 were not reexamined.

35. The method of claim 33, [wherein the size of said data block is variable] further comprising:

*analyzing data within the data block to identify one or more data types of the data within the data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

46. A computer implemented method comprising: receiving a data block; analyzing data within the data block to determine whether or not a data type is identified for the data within the data block;

compressing, if said data type is identified, said data block with at least one encoder associated with said data type to provide a compressed data block;

compressing, if said data type is not identified, said data block with at least one encoder associated with a non-identifiable data type to provide said compressed data block; and

storing said compressed data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.

47. A computer implemented method comprising: receiving a data block;

analyzing data within the data block to determine whether or not a data type is identified for the data within the data block;

compressing, if said data type is identified, said data block with at least one encoder associated with said data type to provide a compressed data block;

compressing, if said data type is not identified, said data block with at least one encoder associated with a non-identifiable data type to provide said compressed data block;

storing said compressed data block;

transmitting a data compression type descriptor, indicative of the compression utilized to provide said compressed data block, with said compressed data block;

receiving said compressed data block and said data compression type descriptor; and

**2**

*decompressing said compressed data block based on said data compression type descriptor;*

*wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.*

48. A computer implemented method comprising: receiving a data block;

associating at least one encoder to each one of several data types;

analyzing data within the data block to identify a first data type of the data within the data block;

compressing, if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block; and

compressing, if said first data type is not the same as one of said several data types, said data block with a default encoder to provide said compressed data block,

wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.

49. A computer implemented method comprising: receiving a data block;

associating at least one encoder to each one of several data types;

analyzing data within the data block to identify a first data type of the data within the data block;

compressing, if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block;

compressing, if said first data type is not the same as one of said several data types, said data block with a default encoder to provide said compressed data block;

transmitting a data compression type descriptor, indicative of the compression utilized to provide said compressed data block, with said compressed data block;

receiving said compressed data block and said data compression type descriptor; and

decompressing said compressed data block based on said data compression type descriptor;

wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.

50. A computer implemented method comprising:

associating a first encoder to a first data type;

associating a second encoder to a second data type;

receiving a data block;

analyzing data within the data block to determine a data type of the data within the data block;

compressing said data block with said first encoder if said data type is the same as said first data type;

compressing said data block with said second encoder if said data type is the same as said second data type; and compressing said data block with a third encoder if said data type cannot be identified,

wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block.

51. A computer implemented method comprising:  
 associating at least one of several first encoders to each  
 one of several data types;  
 associating at least one second encoder to a non-identifi-  
 cable data type; 5  
 receiving a data block from an input stream of data;  
 analyzing data within the data block to determine whether  
 a data type is identified for the data within the data  
 block;  
 compressing, if a data type is identified as being associated 10  
 with said at least one of several first encoders, said data  
 block with said at least one of several first encoders  
 associated with said data type to provide a compressed  
 data block;  
 compressing, if a data type is not identified, said data block 15  
 with said at least one second encoder to provide said  
 compressed data block; and  
 transmitting said compressed data block with a data com-  
 pression type descriptor indicative of the compression  
 utilized to provide said compressed data block, 20  
 wherein the analyzing of the data within the data block to  
 identify one or more data types excludes analyzing  
 based only on a descriptor that is indicative of the data  
 type of the data within the data block.

\* \* \* \* \*

25

MICHAEL V. MESSINGER  
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February 12, 2014

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
**Attn: Mail Stop Amendment**

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Seventh Supplemental Information Disclosure Statement;
2. Form PTO/SB/08a (1 sheet) listing 8 documents (US1-US8);
3. Form PTO/SB/08b (3 sheets) listing 27 documents (NPL1-NPL27); and
4. Copies of cited documents (NPL1-NPL25).

***The above-listed documents are filed electronically through EFS-Web.***

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.




Commissioner for Patents  
February 12, 2014  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency,  
or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/wcf  
Enclosures

1802788\_1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Seventh Supplemental Information Disclosure Statement**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	<i>Inter Partes</i> Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	<i>Inter Partes</i> Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	<i>Ex Parte</i> Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	<i>Inter Partes</i> Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	<i>Inter Partes</i> Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	<i>Inter Partes</i> Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Examiner's Determination under 37 C.F.R. § 41.77(d) mailed 01/14/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Patent Owner's Request to Reopen Prosecution filed 12/02/2013; Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Patent Owner's Request to Reopen Prosecution filed 12/02/2013; Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Patent Owner's Request to Reopen Prosecution filed 12/02/2013; Decision on Appeal mailed 11/01/2013

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Reply to Action Closing Prosecution filed 11/04/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Reply to Action Closing Prosecution filed 10/21/2013; Action Closing Prosecution mailed 09/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	<i>Inter Partes</i> Reexamination Certificate issued 01/08/2014

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed as **NPL7-NPL21**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014

3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Opinion of the Court of Appeals for the Federal Circuit received 01/27/2014
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Updated court docket listings for litigations previously disclosed and pending are submitted herewith as documents **NPL22-NPL25**.

*Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.*

*Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.*

*Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.*

Applicants submit herewith a document related to the above-listed litigations as **NPL1**.

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent and PTO/SB/08b equivalent are documents that may be considered material to the patentability of this

application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

Copies of documents **NPL1-NPL25** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of documents **US1-US8** on the attached IDS Forms are submitted. Additionally, copies of documents **NPL26-NPL27**, cited on the attached IDS Forms, are not provided in accordance with the U.S. Patent and Trademark Office

Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

Applicants submit herewith actions from the following co-pending, commonly-assigned U.S. Patent Application Nos.:

Document **NPL2** is a copy of a Supplemental Notice of Allowability mailed December 19, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,211.

Document **NPL3** is a copy of a Final Office Action mailed December 27, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/690,125.

Document **NPL4** is a copy of a Corrected Notice of Allowability mailed January 14, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,419.

Document **NPL5** is a copy of a Notice of Allowance mailed January 16, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,561.

Document **NPL6** is a copy of a Corrected Notice of Allowability mailed January 31, 2014, in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,419.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608); and 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

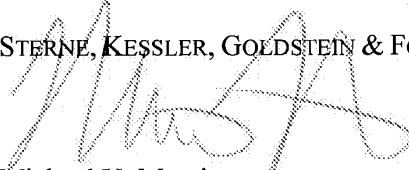
It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.



The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: \_\_\_\_\_

2/12/2014

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1	of	2
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 13/154,211, mailed November 26, 2013, 4 pages.	
	NPL2	Copy of Notice of Allowance for U.S. Appl. No. 13/101,994, mailed December 2, 2013, 7 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 11/553,419, mailed December 18, 2013, 6 pages.	
	NPL4	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,716, mailed December 20, 2013, 12 pages.	
	NPL5	Copy of Notice of Allowance for U.S. Appl. No. 14/035,712, mailed December 20, 2013, 8 pages.	
	NPL6	Copy of Non-Final Office Action for U.S. Appl. No. 14/035,719, mailed December 20, 2013, 11 pages.	
	NPL7	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed November 13, 2013, 8 pages.	
	NPL8	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed November 21, 2013, 10 pages.	
	NPL9	Notice of Intent to Issue an Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed November 27, 2013, 10 pages.	
	NPL10	Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed December 5, 2013, 2 pages.	

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2
		Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL11	U.S. Patent Application No. 14/033,245, FALLON et al., "Systems and Methods for Video and Audio Data Storage and Distribution," filed September 20, 2013.	
	NPL12	U.S. Patent Application No. 14/035,712, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL13	U.S. Patent Application No. 14/035,719, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL14	U.S. Patent Application No. 14/035,716, FALLON et al., "Methods for Encoding and Decoding Data," filed September 24, 2013.	
	NPL15	U.S. Patent Application No. 14/035,561, James J. FALLON, "Data Compression Systems and Methods," filed September 24, 2013.	

1786149\_1

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



US007321937C2

(12) **INTER PARTES REEXAMINATION CERTIFICATE (755th)**

**United States Patent**

(10) **Number:** US 7,321,937 C2

**Fallon**

(45) **Certificate Issued:** \*Dec. 5, 2013

(54) **SYSTEM AND METHODS FOR ACCELERATED DATA STORAGE AND RETRIEVAL**

(56) **References Cited**

(75) Inventor: **James J. Fallon**, Bronxville, NY (US)

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/001,922, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

(73) Assignee: **Realtime Data LLC**, New York, NY (US)

*Primary Examiner* — Karin Reichle

**Reexamination Request:**

No. 95/001,922, Mar. 2, 2012

(57) **ABSTRACT**

**Reexamination Certificate for:**

Patent No.: **7,321,937**  
Issued: **Jan. 22, 2008**  
Appl. No.: **11/400,674**  
Filed: **Apr. 8, 2006**

Systems and methods for providing accelerated data storage and retrieval utilizing lossless data compression and decompression. A data storage accelerator includes one or a plurality of high speed data compression encoders that are configured to simultaneously or sequentially losslessly compress data at a rate equivalent to or faster than the transmission rate of an input data stream. The compressed data is subsequently stored in a target memory or other storage device whose input data storage bandwidth is lower than the original input data stream bandwidth. Similarly, a data retrieval accelerator includes one or a plurality of high speed data decompression decoders that are configured to simultaneously or sequentially losslessly decompress data at a rate equivalent to or faster than the input data stream from the target memory or storage device. The decompressed data is then output at rate data that is greater than the output rate from the target memory or data storage device. The data storage and retrieval accelerator method and system may employed: in a disk storage adapter to reduce the time required to store and retrieve data from computer to disk; in conjunction with random access memory to reduce the time required to store and retrieve data from random access memory; in a display controller to reduce the time required to send display data to the display controller or processor; and/or in an input/output controller to reduce the time required to store, retrieve, or transmit data.

Reexamination Certificate C1 7,321,937 issued May 15, 2012

(\*) Notice: This patent is subject to a terminal disclaimer.

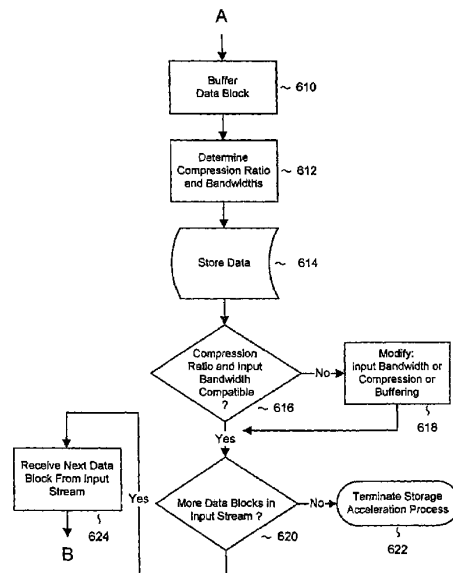
**Related U.S. Application Data**

(63) Continuation of application No. 10/628,795, filed on Jul. 28, 2003, now Pat. No. 7,130,913, which is a continuation of application No. 09/266,394, filed on Mar. 11, 1999, now Pat. No. 6,601,104.

(51) **Int. Cl.**  
*G06F 13/00* (2006.01)

(52) **U.S. Cl.**  
USPC ..... **709/231**

(58) **Field of Classification Search**  
None  
See application file for complete search history.



**1**  
**INTER PARTES**  
**REEXAMINATION CERTIFICATE**  
**ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

5

AS A RESULT OF REEXAMINATION, IT HAS BEEN  
DETERMINED THAT:

10

The patentability of claim **8** is confirmed.  
Claims **17-20** were previously cancelled.  
Claims **1, 5-7, 11** and **14-16** are cancelled.  
Claims **2-4, 9-10** and **12-13** were not reexamined.

15

\* \* \* \* \*

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	17783538
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/William Flanigen
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	30-DEC-2013
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	19:08:29
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2855004000B_6SIDS.pdf	1153248 fd507e52145c78acd6cd314a34092e51c125e199	yes	10

Multipart Description/PDF files in .zip description					
Document Description			Start	End	
Transmittal Letter			1	1	
Transmittal Letter			2	8	
Information Disclosure Statement (IDS) Form (SB08)			9	10	
<b>Warnings:</b>					
<b>Information:</b>					
2	Non Patent Literature	NPL1_Suppl_NOA_13154211_1262013.pdf	144974 04fa5f644830e85e797595c0993749c7d2b3196d	no	4
<b>Warnings:</b>					
<b>Information:</b>					
3	Non Patent Literature	NPL2_NOA_13101994_12022013.pdf	357743 62bb03de7fe093d996f601432c46d9892bf48b9	no	7
<b>Warnings:</b>					
<b>Information:</b>					
4	Non Patent Literature	NPL3_NOA_11553419_12182013.pdf	367163 f5df646055e8efef34ff75f69ad3730c96495fd9	no	6
<b>Warnings:</b>					
<b>Information:</b>					
5	Non Patent Literature	NPL4_NFOA_14035716_12202013.pdf	467371 8d2f50d7123f53c4a91b69fd043a915769b05bd3b	no	12
<b>Warnings:</b>					
<b>Information:</b>					
6	Non Patent Literature	NPL5_NOA_14035712_12202013.pdf	420185 9e700a48ad5d33211b0abe4de462ea33094a2777	no	8
<b>Warnings:</b>					
<b>Information:</b>					
7	Non Patent Literature	NPL6_NFOA_14035719_12202013.pdf	421461 b5c5704e57cd38c5d65bf42061704b94ace865c0	no	11
<b>Warnings:</b>					
<b>Information:</b>					
8	Non Patent Literature	NPL7_NIIRC_95001922_11132013.pdf	252930 132b05c1a85d914e86ed3329d56be95aeac55dbe	no	8
<b>Warnings:</b>					

<b>Information:</b>					
9	Non Patent Literature	NPL8_NIIRC_95001928_11212013.pdf	433755 8ebdb806b57ae122fa332aa9a05833418bcb25d	no	10
<b>Warnings:</b>					
<b>Information:</b>					
10	Non Patent Literature	NPL9_NIIRC_95001926_11272013.pdf	373350 104260658e8a1a7e77afe1093d83d625eacdf7a94	no	10
<b>Warnings:</b>					
<b>Information:</b>					
11	Non Patent Literature	NPL10_Reexam_Certificate_95001922_12052013.pdf	71602 1fcc98c6e9b389d3cae8e566c529e2a82db74430	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			4463782		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					



MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



December 30, 2013

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
**Attn: Mail Stop Amendment**

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **SYSTEMS AND METHODS FOR ACCELERATED LOADING OF  
OPERATING SYSTEMS AND APPLICATION PROGRAMS**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Sixth Supplemental Information Disclosure Statement;
2. Form PTO/SB/08b (2 sheets) listing 15 documents (NPL1-NPL15); and
3. Copies of cited documents (NPL1-NPL10).

***The above-listed documents are filed electronically through EFS-Web.***

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read 'Michael V. Messinger', written over the printed name.

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/wcf  
Enclosures

1786173\_1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **SYSTEMS AND METHODS FOR  
ACCELERATED LOADING OF  
OPERATING SYSTEMS AND  
APPLICATION PROGRAMS**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Sixth Supplemental Information Disclosure Statement**

*Mail Stop Amendment*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	<i>Inter Partes</i> Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	<i>Inter Partes</i> Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	<i>Ex Parte</i> Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	<i>Inter Partes</i> Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	<i>Inter Partes</i> Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	<i>Inter Partes</i> Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Decision on Petition Under 37 C.F.R. § 1.181 mailed 09/23/2013; Petition to Expunge Third Party Requester's Improper Submission of Declarations and Strike Comments Directed to Examiner's Determination filed 06/26/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Decision on Appeal mailed 11/01/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Decision on Appeal mailed 11/01/2013

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	<i>Inter Partes</i> Reexamination Certificate issued 12/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Reply to Action Closing Prosecution filed 11/04/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Reply to Action Closing Prosecution filed 10/21/2013; Action Closing Prosecution mailed 09/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	Notice of Intent to Issue a Reexamination Certificate mailed 11/27/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	Notice of Intent to Issue a Reexamination Certificate mailed 11/21/2013

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed as **NPL7-NPL10**.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Notice of Appeal Filed
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Notice of Appeal Filed
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Notice of Appeal Filed

5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Form PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

Copies of documents **NPL1-NPL10** are submitted. However, copies of documents **NPL11-NPL15**, cited on the attached IDS Forms, are not provided in accordance with the U.S. Patent and Trademark Office Official Gazette notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is *sua sponte* waived where the cited pending application is stored in the USPTO's IFW system."

Applicants submit herewith actions from the following co-pending, commonly assigned U.S. Patent Application Nos.:

Document **NPL1** is a copy of a Supplemental Notice of Allowability mailed November 26, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,211.

Document **NPL2** is a copy of a Notice of Allowance mailed December 2, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/101,994.

Document **NPL3** is a copy of a Notice of Allowance mailed December 18, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,419.

Document **NPL4** is a copy of a Non-Final Office Action mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,716.

Document **NPL5** is a copy of a Notice of Allowance mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,712.

Document **NPL6** is a copy of a Non-Final Office Action mailed December 20, 2013, in the prosecution of co-pending, commonly-assigned U.S. Application No. 14/035,719.

The identification of these Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267 (now U.S. Patent No. 7,181,608), filed February 2, 2001; and 11/551,211 (now U.S. Patent No. 8,112,619), filed October 19, 2006, in accordance with MPEP 2001.06(b), and indicate in the next communication from the

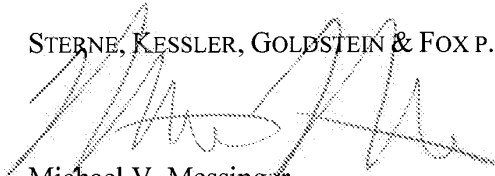
office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDBSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date:

December 30, 2013

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1 of 1		

U.S. PATENT DOCUMENTS					
Examiner initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	US1	6,336,153 B1	01-01-2002	Izumida et al.	
	US2	6,374,353 B1	04-16-2002	Settsu et al.	
	US3	8,553,759 B2	10-08-2013	Fallon et al.	
	US4				
	US5				
	US6				
	US7				
	US8				
	US9				
	US10				
	US11				
	US12				
	US13				
	US14				
	US15				
	US16				
	US17				
	US18				
	US19				
	US20				

FOREIGN PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	FP1					
	FP2					
	FP3					
	FP4					
	FP5					
	FP6					
	FP7					
	FP8					

1770402\_1

Examiner Signature	/Suresh Suryawanshi/	Date Considered	11/18/2013
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901-04. <sup>3</sup> Enter Office that issued the document by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS/

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	2

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 11/553,419, mailed October 17, 2013, 7 pages.	
	NPL2	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed October 23, 2013, 7 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 13/154,211, mailed October 24, 2013, 9 pages.	
	NPL4	Copy of Final Office Action for U.S. Appl. No. 13/482,800, mailed October 25, 2013, 21 pages.	
	NPL5	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, mailed September 20, 2013, 47 pages.	
	NPL6	Decision on Petition(s) Decided Under 37 C.F.R. 1.181 in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed September 23, 2013, 3 pages.	
	NPL7	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, mailed October 2, 2013, 18 pages.	
	NPL8	Patent Owner's Reply to Action Closing Prosecution of September 20, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed October 21, 2013, 9 pages.	
	NPL9	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed November 1, 2013, 18 pages.	
	NPL10	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed November 1, 2013, 12 pages.	

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	11/18/2013
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's Article citation reference (number optional). Applicant's Office action reference (number optional). Applicant's language translation if applicable.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	2	of	2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL11	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed November 1, 2013, 15 pages.	
	NPL12	Patent Owner's Reply to Action Closing Prosecution of October 2, 2013 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed November 4, 2013, 9 pages.	
	NPL13		
	NPL14		
	NPL15		
	NPL16		
	NPL17		
	NPL18		
	NPL19		
	NPL20		

Examiner Signature	/Suresh Suryawanshi/	Date Considered	11/18/2013
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's Article cited in identification number (optional). Applicant is to place check mark here if English language translation is attached.

**ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./**

## PATENT WITHDRAWAL NOTICE

DATE WITHDRAWN

11/7/2013

WITHDRAWAL NUMBER

23579

The following application has been **WITHDRAWN** from the

11/19/2013 issue.

SERIAL NO.

13118122

PATENT NUMBER

8589668

DRAWINGS

0

CLASS

/

TITLE

SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND  
APPLICATION PROGRAMS

NAME AND ADDRESS

JAMES J. FALLON, ET AL  
ARMONK, NY

REASON FOR WITHDRAWAL

Auto-petition to withdraw - Granted.

APPROVED

/Kimberly Terrell/, Manager

Patent Publication Branch  
Office of Data Management

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## Request for Continued Examination (RCE) Transmittal

Address to:  
 Mail Stop RCE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Application Number	13/118,122
Filing Date	May 27, 2011
First Named Inventor	James J. FALLON
Art Unit	2115
Examiner Name	SURYAWANSHI, Suresh
Attorney Docket Number	2855.004000B

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
 Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114.** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

- a.  Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.
- i.  Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_
- ii.  Other \_\_\_\_\_
- b.  Enclosed
- i.  Amendment/Reply
- ii.  Affidavit(s)/ Declaration(s)
- iii.  Information Disclosure Statement (IDS)
- iv.  Other \_\_\_\_\_

2. **Miscellaneous**


- a.  Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of \_\_\_\_\_ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)
- b.  Other \_\_\_\_\_

3. **Fees**

- The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
- The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to
- a.  Deposit Account No. 19-0036
- i.  RCE fee required under 37 CFR 1.17(e)
- ii.  Extension of time fee (37 CFR 1.136 and 1.17)
- iii.  Other Petition to Withdraw Fee
- b.  Check in the amount of \$ \_\_\_\_\_ enclosed
- c.  Payment by credit card (Form PTO-2038 enclosed)

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

Signature		Date	Nov 6, 2013
Name (Print/Type)	Michael V. Messinger	Registration No.	37,575

**CERTIFICATE OF MAILING OR TRANSMISSION**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature		Date	
Name (Print/Type)			

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2. 1770428

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	I	of	I

U.S. PATENT DOCUMENTS					
Examiner initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	US1	6,336,153 B1	01-01-2002	Izumida et al.	
	US2	6,374,353 B1	04-16-2002	Settsu et al.	
	US3	8,553,759 B2	10-08-2013	Fallon et al.	
	US4				
	US5				
	US6				
	US7				
	US8				
	US9				
	US10				
	US11				
	US12				
	US13				
	US14				
	US15				
	US16				
	US17				
	US18				
	US19				
	US20				

FOREIGN PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	FP1					
	FP2					
	FP3					
	FP4					
	FP5					
	FP6					
	FP7					
	FP8					

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Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	1	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Copy of Notice of Allowance for U.S. Appl. No. 11/553,419, mailed October 17, 2013, 7 pages.	
	NPL2	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed October 23, 2013, 7 pages.	
	NPL3	Copy of Notice of Allowance for U.S. Appl. No. 13/154,211, mailed October 24, 2013, 9 pages.	
	NPL4	Copy of Final Office Action for U.S. Appl. No. 13/482,800, mailed October 25, 2013, 21 pages.	
	NPL5	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, mailed September 20, 2013, 47 pages.	
	NPL6	Decision on Petition(s) Decided Under 37 C.F.R. 1.181 in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed September 23, 2013, 3 pages.	
	NPL7	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, mailed October 2, 2013, 18 pages.	
	NPL8	Patent Owner's Reply to Action Closing Prosecution of September 20, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed October 21, 2013, 9 pages.	
	NPL9	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed November 1, 2013, 18 pages.	
	NPL10	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed November 1, 2013, 12 pages.	

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Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	2	of	2	Attorney Docket Number	2855.004000B

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL11	Decision on Appeal in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed November 1, 2013, 15 pages.	
	NPL12	Patent Owner's Reply to Action Closing Prosecution of October 2, 2013 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed November 4, 2013, 9 pages.	
	NPL13		
	NPL14		
	NPL15		
	NPL16		
	NPL17		
	NPL18		
	NPL19		
	NPL20		

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Michael V. Messinger/Lauren Harrison			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
Petition fee- 37 CFR 1.17(h) (Group III)	1464	1	140	140
RCE - 2nd and Subsequent Request	1820	1	1700	1700
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1840</b>



## UNITED STATES PATENT AND TRADEMARK OFFICE

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Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

Decision Date : November 6, 2013

In re Application of :

James Fallon

DECISION ON PETITION

UNDER CFR 1.313(c)(2)

Application No : 13118122

Filed : 27-May-2011

Attorney Docket No : 2855.004000B

This is an electronic decision on the petition under 37 CFR 1.313(c)(2), filed November 6, 2013, to withdraw the above-identified application from issue after payment of the issue fee.

The petition is **GRANTED**.

The above-identified application is withdrawn from issue for consideration of a submission under 37 CFR 1.114 (request for continued examination). See 37 CFR 1.313(c)(2).

**Petitioner is advised that the issue fee paid in this application cannot be refunded. If, however, this application is again allowed, petitioner may request that it be applied towards the issue fee required by the new Notice of Allowance.**

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

This application file is being referred to Technology Center AU 2115 for processing of the request for continuing examination under 37 CFR 1.114 .

Office of Petitions

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	17334368
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/Lauren Harrison
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	06-NOV-2013
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	17:33:04
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1840
RAM confirmation Number	5163
Deposit Account	190036
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Petition automatically granted by EFS	petition-request.pdf	31632	no	2
			327912c3bfa4e301dcaf269fb624996518a25e		
<b>Warnings:</b>					
<b>Information:</b>					
2	Non Patent Literature	NPL1_NOA_11553419_10172013.pdf	354839	no	7
			6d27634902702e2c512616f2319a6f2d5b6a53e		
<b>Warnings:</b>					
<b>Information:</b>					
3	Non Patent Literature	NPL2_NOA_12857238_10232013.pdf	353942	no	7
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<b>Warnings:</b>					
<b>Information:</b>					
4	Non Patent Literature	NPL3_NOA_13154211_10242013.pdf	416268	no	9
			518c46b9275d9d28a0ee053e60d909a98a955192		
<b>Warnings:</b>					
<b>Information:</b>					
5	Non Patent Literature	NPL4_FOA_13482800_10252013.pdf	789005	no	21
			87a9f4e7ccc0be6466335ab242db6e5d8d46d757		
<b>Warnings:</b>					
<b>Information:</b>					
6	Non Patent Literature	NPL5_ACP_95001925_09202013.pdf	2945982	no	47
			87703c7552f1971faa9ed8671aa0ea11991fd65		
<b>Warnings:</b>					
<b>Information:</b>					
7	Non Patent Literature	NPL6_Petition_Decision_Dismissed_95001517_09232013.pdf	113785	no	3
			951e8543c9dee7d847b4f7d8232ab1ec9268999e		
<b>Warnings:</b>					
<b>Information:</b>					
8	Non Patent Literature	NPL7_ACP_95001923_10022013.pdf	677602	no	18
			077622ca7b48b22b8efbfb5fa3906ce51f55833		
<b>Warnings:</b>					
<b>Information:</b>					
9	Non Patent Literature	NPL8_PO_Reply_ACP_95001925_10212013.pdf	482168	no	9
			5303ba1d23458604bcc55649bf1e87e7ee89fa97		
<b>Warnings:</b>					
<b>Information:</b>					

10	Non Patent Literature	NPL9_Board_Decision_950015 33_11012013.pdf	679650 97338b3f45338b9b2bbc16643a2d234f3f4 9647a	no	18
<b>Warnings:</b>					
<b>Information:</b>					
11	Non Patent Literature	NPL10_Board_Decision_95001 544_11012013.pdf	397667 a7e8ea01fa47033ad846c1a52108b365513 92a62	no	12
<b>Warnings:</b>					
<b>Information:</b>					
12	Non Patent Literature	NPL11_Board_Decision_95001 581_11012013.pdf	544263 8770484906e3abe570e3eaa6f8b50ac5e3a 82d7f	no	15
<b>Warnings:</b>					
<b>Information:</b>					
13	Non Patent Literature	NPL12_PO_Comments_to_ACP _95001923_11042013.pdf	452144 0aac3156bd5966c73e71eb93d8b3b1e67ff 27246	no	9
<b>Warnings:</b>					
<b>Information:</b>					
14		2855004000bqpidfinal.pdf	1480350 872a479150cf132890645b34a55b860f905 7e3b	yes	11
<b>Multipart Description/PDF files in .zip description</b>					
<b>Document Description</b>		<b>Start</b>	<b>End</b>		
Transmittal Letter		1	2		
Request for Continued Examination (RCE)		3	3		
Quick Path Information Disclosure Statement		4	5		
Transmittal Letter		6	8		
Information Disclosure Statement (IDS) Form (SB08)		9	11		
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<b>Information:</b>					
15	Fee Worksheet (SB06)	fee-info.pdf	32238 6a5306ba99c7990f2202ec2bcd765f5e92f4 6560	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			9751535		

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

Electronic Petition Request	<b>PETITION TO WITHDRAW AN APPLICATION FROM ISSUE AFTER PAYMENT OF THE ISSUE FEE UNDER 37 CFR 1.313(c)</b>
Application Number	13118122
Filing Date	27-May-2011
First Named Inventor	James Fallon
Art Unit	2115
Examiner Name	SURESH SURYAWANSHI
Attorney Docket Number	2855.004000B
Title	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

An application may be withdrawn from issue for further action upon petition by the applicant. To request that the Office withdraw an application from issue, applicant must file a petition under this section including the fee set forth in § 1.17(h) and a showing of good and sufficient reasons why withdrawal of the application from issue is necessary.

APPLICANT HEREBY PETITIONS TO WITHDRAW THIS APPLICATION FROM ISSUE UNDER 37 CFR 1.313(c).

A grantable petition requires the following items:

- (1) Petition fee; and
- (2) One of the following reasons:
  - (a) Unpatentability of one or more claims, which must be accompanied by an unequivocal statement that one or more claims are unpatentable, an amendment to such claim or claims, and an explanation as to how the amendment causes such claim or claims to be patentable;
  - (b) Consideration of a request for continued examination in compliance with § 1.114 (for a utility or plant application only); or
  - (c) Express abandonment of the application. Such express abandonment may be in favor of a continuing application, but not a CPA under 37 CFR 1.53(d).

**Petition Fee**

- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).
- Applicant(s) status remains as SMALL ENTITY.
- Applicant(s) status remains as other than SMALL ENTITY

Reason for withdrawal from issue



- One or more claims are unpatentable
- Consideration of a request for continued examination (RCE) (List of Required Documents and Fees)
- Applicant hereby expressly abandons the instant application (any attorney/agent signing for this reason must have power of attorney pursuant to 37 CFR 1.32(b)).

RCE request, submission, and fee.

- I certify, in accordance with 37 CFR 1.4(d)(4) that :
- The RCE request ,submission, and fee have already been filed in the above-identified application on
  - Are attached.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

- An attorney or agent registered to practice before the Patent and Trademark Office who has been given power of attorney in this application.
- An attorney or agent registered to practice before the Patent and Trademark Office, acting in a representative capacity.
- A sole inventor
- A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors
- A joint inventor; all of whom are signing this e-petition
- The assignee of record of the entire interest that has properly made itself of record pursuant to 37 CFR 3.71

Signature	/Michael Messinger/
Name	Michael V. Messinger
Registration Number	37575

MICHAEL V. MESSINGER  
DIRECTOR  
(202) 772-8667  
MIKEM@SKGF.COM



November 6, 2013

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
**Art Unit 2115**  
**Attn: Mail Stop 313(c)**

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Authorization to charge Deposit Account No. 19-0036 in the amount of \$1,840.00 to cover:

\$140.00	Petition to Withdraw from Issue after Payment of the Issue Fee (under 37 C.F.R. § 1.313(c)(2));
\$1,700.00	Request for Continued Examination Fee;
2. Request for Continued Examination (RCE) Transmittal (PTO/SB/30);
3. Petition to Withdraw from Issue Under 37 C.F.R. § 1.313(c)(2) for consideration of a Request for Continued Examination;
4. Quick Path Information Disclosure Statement (QPIDS) Transmittal (PTO/SB/09);
5. Fifth Supplemental Information Disclosure Statement;
6. Form PTO/SB/08a (1 sheet) listing 3 documents (US1-US3);
7. Form PTO/SB/08b (2 sheets) listing 12 documents (NPL1-NPL12); and
8. Copies of cited documents (NPL1-NPL12).

The above-listed documents are filed electronically through EFS-Web.

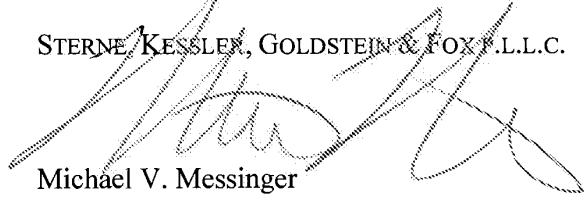
Commissioner for Patents  
November 6, 2013  
Page 2

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSEL, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/MRM/leh  
Enclosures

1770444\_1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Fifth Supplemental Information Disclosure Statement**

*Mail Stop Amendment*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Listed on accompanying IDS Forms PTO/SB/08a equivalent and/or PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed after the payment of the Issue Fee. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

Copies of documents **NPL1-NPL12** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents and patent application publications cited as documents **US1-US3** on the attached IDS Forms are submitted.

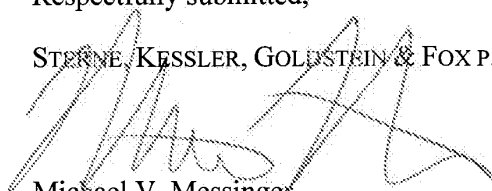
It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: Nov. 6, 2013

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Table with 5 columns: APPLICATION NO., ISSUE DATE, PATENT NO., ATTORNEY DOCKET NO., CONFIRMATION NO.
13/118,122 11/19/2013 8589668 2855.004000B 8978

26111 7590 10/30/2013
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

- James J. Fallon, Armonk, NY;
John Buck, Oceanside, NY;
Paul F. Pickel, Bethpage, NY;
Stephen J. McErlain, New York, NY;

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discussion, it is assumed that the programmable logic device 22 is always reloaded, regardless of the type of boot process. Initially, in Fig. 6a, the DSP 21 is reset by asserting a DSP reset signal (step 50). Preferably, the DSP reset signal is generated by the boot circuit configuration circuit 28 (as described in the above-incorporated U.S. Serial No. <sup>09/775897</sup> (Attorney Docket No. 8011-10)). While the DSP reset signal is asserted (e.g., active low), the DSP is held in reset and is initialized to a prescribed state. Upon deassertion of the DSP Reset signal, the logic code for the DSP (referred to as the "boot loader") is copied from the non-volatile logic device 24 into memory residing in the DSP 21 (step 51). This allows the DSP to execute the initialization of the programmable logic device 22. In a preferred embodiment, the lower 1K bytes of EPROM memory is copied to the first 1k bytes of DSP's low memory (0x0000 0000 through 0x0000 03FF). As noted above, the memory mapping of the DSP 21 maps the CE1 memory space located at 0x9000 0000 through 0x9001 FFFF with the OTP EPROM. In a preferred embodiment using the Texas Instrument DSP TMS320c6211GFN-150, this ROM boot process is executed by the EDMA controller of the DSP. It is to be understood, however, that the EDMA controller may be instantiated in the programmable logic device (Xilinx), or shared between the DSP and programmable logic device.

[0064] After the logic is loaded in the DSP 21, the DSP 21 begins execution out of the lower 1K bytes of memory (step 52). In a preferred embodiment, the DSP 21 initializes with at least the functionality to read EPROM Memory (CE 1) space. Then, as described above, the DSP preferably configures its serial ports as general purpose I/O (step 53).

[0065] Next, the DSP 21 will initialize the programmable logic device 22 using one or more suitable control signals. (step 54). After initialization, the DSP 21 begins reading the configuration data of the programmable logic device 22 from the non-volatile memory 24 (step 55). This process begins with clearing a Data Byte Counter and then reading the first data byte beginning at a prespecified memory location in the non-volatile memory 24 (step 56). Then, the first output byte is loaded into the DSP's I/O locations with LSB at DO and MSB at D7 (step 57). Before the first byte is loaded to the logic device 22, a prespecified time delay (e.g., 5usec) is provided to ensure that the logic device 22 has been initialized (step 58). In particular, this time delay should be of a duration at least equal to the internal setup time of the programmable logic device 22 from completion of

Substitute for form 1449/PTO		<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	To Be Assigned
Sheet	23 of 27	Attorney Docket Number	2855.004000B

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code 2 (if known)			
	US441	6,856,651		02-15-2005	Singh	
	US442	6,862,278		03-01-2005	Chang et al.	
	US443	6,879,266		04-12-2005	Dye et al.	
	US444	6,885,316		04-26-2005	Mehring	
	US445	6,885,319		04-26-2005	Geiger et al.	
	US446	6,888,893		05-03-2005	Li et al.	
	US447	6,909,383		06-21-2005	Shokrollahi et al.	
	US448	6,944,740		09-13-2005	Abali et al.	
	US449	6,952,409		<del>10-04-2005</del>	Jolitz October 4, 2005	
	US450	6,959,359		10-25-2005	Suzuki et al.	
	US451	6,963,608		11-08-2005	Wu	
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	US453	6,993,597		01-31-2006	Nakagawa et al.	
	US454	7,007,099		02-28-2006	Donati et al.	
	US455	7,024,460		04-04-2006	Koopmas	
	US456	7,054,493		05-30-2006	Schwartz	
	US457	7,069,342		06-27-2006	Biederman	
	US458	7,089,391		08-08-2006	Geiger et al.	
	US459	7,102,544		09-05-2006	Liu	
	US460	7,127,518		10-24-2006	Vange et al.	

Change(s) applied to document, /D.H.P./ 10/18/2015

FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner Signature	/Suresh Suryawanshi/	Date Considered	05/14/2012
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./



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13/118,122 05/27/2011 James J. Fallon 2855.004000B 8978

26111 7590 10/22/2013
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
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WASHINGTON, DC 20005

Table with 1 column: EXAMINER

SURYAWANSHI, SURESH

Table with 2 columns: ART UNIT, PAPER NUMBER

2115

Table with 2 columns: MAIL DATE, DELIVERY MODE

10/22/2013 PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Response to Rule 312 Communication</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	13/118,122	FALLON ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	SURESH SURYAWANSHI	2115

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

1.  The amendment filed on 03 October 2013 under 37 CFR 1.312 has been considered, and has been:
- a)  entered.
  - b)  entered as directed to matters of form not affecting the scope of the invention.
  - c)  disapproved because the amendment was filed after the payment of the issue fee.  
Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
  - d)  disapproved. See explanation below.
  - e)  entered in part. See explanation below.

Applicant submitted amendment for claim 77 is considered by examiner and entered.

	/SURESH SURYAWANSHI/ Primary Examiner, Art Unit 2115
--	---

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**  
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26111                    7590                    09/19/2013  
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_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1780	\$300	\$0	\$2080	12/19/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
SURYAWANSHI, SURESH	2115	713-002000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address Form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a <b>Customer Number is required.</b></p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.</p>
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- 1 Sterne, Kessler, Goldsten
- 2 & Fox P.L.L.C.
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

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(A) NAME OF ASSIGNEE: **Realtime Data LLC**

(B) RESIDENCE: (CITY and STATE OR COUNTRY) **Armonk, New York**

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input checked="" type="checkbox"/> Issue Fee</p> <p><input checked="" type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fees: (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input checked="" type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number <u>19-0036</u> (enclose an extra copy of this form).</p>
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5. **Change in Entity Status** (from status indicated above)

- Applicant certifying micro entity status. See 37 CFR 1.29
- Applicant asserting small entity status. See 37 CFR 1.27
- Applicant changing to regular undiscounted fee status.

**NOTE:** Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

**NOTE:** If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

**NOTE:** Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date October 3, 2013

Typed or printed name Michael V. Messinger

Registration No. 37,575

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of  
Operating Systems and  
Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment Under 37 C.F.R. § 1.312**

*Mail Stop Issue Fee*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

This Amendment under 37 C.F.R. § 1.312 is respectfully submitted. As payment of the issue fee has not been made or is being filed with this Amendment, the Amendment under 37 C.F.R. § 1.312 is proper. (M.P.E.P. § 714.16.)

It is believed that extensions of time are not required beyond those that may otherwise be provided for in documents accompanying this Amendment. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.



***Amendments to the Claims***

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a list of boot data for booting the computer system,

wherein at least a portion of boot data is associated with the list of boot data;

loading the at least a portion of boot data into a memory;

accessing the loaded at least a portion of boot data in a compressed form from the memory; and

decompressing, on a just-in-time basis, the at least a portion of boot data in compressed form from the memory at a rate that decreases boot time relative to loading the operating system in an uncompressed form,

wherein the at least a portion of decompressed boot data is a portion of the operating system for the computer system.

2. (Previously Presented) The method of claim 1, further comprising:

updating the list of boot data by associating additional boot data with the list of boot data;

compressing the boot data loaded into the memory with a data compression engine; and

compressing the additional boot data with an encoder coupled to the data compression engine.

3. (Previously Presented) The method of claim 1, further comprising:  
updating the list of boot data by removing an association of additional boot data  
from the list of boot data.

4. (Previously Presented) The method of claim 1, further comprising:  
updating the list of boot data by associating additional boot data with the list of  
boot data; and  
compressing at least a portion of the additional boot data with a data compression  
encoder.

5. (Cancelled)

6. (Previously Presented) A method, comprising:  
maintaining a list of compressed boot data for booting a computer system;  
storing compressed boot data associated with the list of compressed boot data on  
a non-volatile memory;  
loading the compressed boot data from the non-volatile memory to a second  
memory;  
accessing the compressed boot data from the second memory;  
decompressing the compressed boot data to provide decompressed boot data; and  
utilizing the decompressed boot data to boot the computer system,

wherein the accessing and the decompressing occur within a period of time which is less than a time to access the boot data from the non-volatile memory in an uncompressed form.

7. (Previously Presented) A system comprising:

a processor;

a memory; and

a non-volatile memory device configured to store boot data in compressed form for booting the system and logic code associated with the processor, the logic code including instructions executable by the processor for maintaining a list of boot data used for booting the system,

wherein the processor is configured to load at least a portion of the boot data in compressed form into the memory, to access the at least a portion of the boot data in compressed form, and to decompress the at least a portion of the boot data in compressed form at a rate that decreases boot time relative to booting the system with uncompressed boot data to boot the system.

8. (Previously Presented) The system of claim 7, further comprising:

a data compression engine, coupled to the non-volatile memory, configured to compress boot data to provide the boot data in compressed form; and

a data compression encoder, coupled to the data compression engine, configured to compress additional boot data.

9. (Previously Presented) A method of loading an operating system for booting a computer system, comprising:

storing substantially all of the operating system in compressed form on a non-volatile memory;

loading a first portion of the operating system in compressed form from the non-volatile memory to a second memory;

accessing the first portion from the second memory in compressed form;

decompressing the first portion to provide a decompressed first portion of the operating system;

utilizing the decompressed first portion to partially boot the computer system;

loading a second portion of the operating system in compressed form from the non-volatile memory to the second memory;

accessing the second portion from the memory in compressed form;

decompressing the second portion to provide a decompressed second portion of the operating system; and

utilizing the decompressed second portion to further partially boot the computer system,

wherein the first and second portions are accessed and decompressed at a rate that is faster than accessing the first and second portions from the non-volatile memory in uncompressed form.

10. (Previously Presented) The method of claim 9, further comprising:

compressing additional boot data to provide additional compressed boot data; and

storing the additional compressed boot data in the non-volatile memory.

11. (Previously Presented) The method of claim 10, wherein the compressing comprises:

compressing the additional boot data with a data compression encoder.

12. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in compressed form associated with a boot data list from a non-volatile boot device into a memory upon initialization of the computer system;

accessing the boot data in compressed form from the memory;

decompressing the boot data in compressed form accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form to provide decompressed boot data; and

utilizing the decompressed boot data to load the operating system for the computer system.

13. (Previously Presented) The method of claim 12, further comprising:

compressing additional boot data with a random access encoder.

14. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a boot data list;

loading boot data associated with the boot data list from a non-volatile boot device into a memory as compressed boot data upon initialization of the computer system;

accessing the compressed boot data from the memory; and

decompressing, on a just-in-time basis, the compressed boot data accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form.

15. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein at least a portion of the boot data is in compressed form;

loading the boot data into a memory; and

servicing requests for the boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing the compressed boot data and decompressing the compressed boot data at a rate that decreases an overall boot time relative to loading the operating system in uncompressed form.

16. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with the operating system.

17. (Previously Presented) The method of claim 15, wherein the operating system comprises multiple files.

18. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with one or more application programs of the computer system.

19. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

20. (Previously Presented) The method of claim 18, wherein the one or more application programs comprises multiple files.

21. (Cancelled)

22. (Previously Presented) The method of claim 15, further comprising:  
updating a list of the boot data.

23. (Previously Presented) The method of claim 22, wherein the updating comprises:

adding to the list any boot data requested by the computer system not previously stored in the list.

24. (Previously Presented) The method of claim 22, wherein the updating comprises:

removing from the list any boot data previously stored in the list and not requested by the computer system.

25. (Previously Presented) The method of claim 15, further comprising:  
maintaining a boot data list.

26. (Previously Presented) The method of claim 15, wherein the accessing comprises:

accessing the boot data from a non-volatile memory device.

27. (Previously Presented) The method of claim 1, wherein the at least a portion of the boot data in compressed form represents a plurality of files.

28. (Previously Presented) The method of claim 1, wherein the at least a portion of the boot data in compressed form comprises program code associated with the operating system.

29. (Previously Presented) The method of claim 1, further comprising:  
compressing the at least a portion of the boot data with one or more advanced compression encoders to provide the at least a portion of the boot data in compressed form.



30. (Previously Presented) The method of claim 1, wherein the decompressing comprises:

decompressing the at least a portion of the boot data in compressed form utilizing one or more advanced decompression decoders.

31. – 32. (Cancelled)

33. (Previously Presented) The method of claim 1, wherein the memory is physical.

34. – 36. (Cancelled)

37. (Previously Presented) The method of claim 1, wherein the operating system comprises multiple files.

38. (Previously Presented) The method of claim 1, wherein the boot data includes program code associated with one or more application programs of the computer system.

39. (Previously Presented) The method of claim 1, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

40. (Previously Presented) The method of claim 38, wherein the one or more application programs are comprised of multiple files.

41. (Previously Presented) The method of claim 1, wherein the accessing comprises:

accessing the at least a portion of the boot data in compressed form via direct memory access.

42. (Previously Presented) The method of claim 1, wherein Huffman encoding is utilized to encode the at least a portion of the boot data in compressed form.

43. (Previously Presented) The method of claim 1, wherein Lempel-Ziv encoding is utilized to encode the at least a portion of the boot data in compressed form.

44. (Previously Presented) The method of claim 1, wherein a plurality of encoders are utilized to encode the at least a portion of the boot data in compressed form.

45. (Previously Presented) The method of claim 6, wherein the compressed boot data represents a plurality of files.

46. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises program code associated with an operating system.

47. (Previously Presented) The method of claim 6, further comprising:  
compressing the boot data with one or more advanced compression encoders to  
provide the compressed boot data.

48. (Previously Presented) The method of claim 6, wherein the  
decompressing comprises:  
decompressing the compressed boot data with one or more advanced  
decompression decoders.

49. – 50. (Cancelled)

51. (Previously Presented) The method of claim 6, wherein the second  
memory is physical.

52. – 54. (Cancelled)

55. (Previously Presented) The method of claim 46, wherein the operating  
system comprises multiple files.

56. (Previously Presented) The method of claim 6, wherein the compressed  
boot data comprises program code associated with one or more application programs of  
the computer system.

57. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

58. (Previously Presented) The method of claim 56, wherein the one or more application programs includes multiple files.

59. (Previously Presented) The method of claim 6, wherein the accessing comprises:

accessing the compressed boot data via direct memory access.

60. (Previously Presented) The method of claim 6, wherein Huffman encoding is utilized to encode the compressed boot data.

61. (Previously Presented) The method of claim 6, wherein Lempel-Ziv encoding is utilized to encode the compressed boot data.

62. (Previously Presented) The method of claim 6, wherein a plurality of encoders are utilized to encode the compressed boot data.

63. (Previously Presented) The system of claim 7, wherein the boot data in compressed form represents a plurality of files.

64. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with an operating system.

65. (Previously Presented) The system of claim 7, further comprising:  
one or more advanced compression encoders configured to compress the boot data to provide the boot data in compressed form.

66. (Previously Presented) The system of claim 7, further comprising:  
one or more advanced decompression decoders configured to decompress the boot data in compressed form.

67. – 68. (Cancelled)

69. (Previously Presented) The system of claim 7, wherein the memory is physical.

70. – 72. (Cancelled)

73. (Previously Presented) The system of claim 7, wherein the boot data in compressed form is comprised of multiple files.

74. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with one or more application programs of the system.

75. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with a combination of an operating system of the system and one or more application programs.

76. (Previously Presented) The system of claim 74, wherein the one or more application programs are comprised of multiple files.

77. (Currently Amended) The system of claim 7, wherein the processor is further configured to access the at least a portion of the boot data in compressed form from the memory via direct memory access.

78. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Huffman encoding to encode the boot data to provide the boot data in compressed form.

79. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode the boot data to provide the boot data in compressed form.

80. (Previously Presented) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in compressed form.

81. (Previously Presented) The method of claim 9, wherein the operating system in compressed form represents a plurality of files.

82. (Previously Presented) The method of claim 9, wherein the operating system in compressed form comprises program code associated with an operating system.

83. (Previously Presented) The method of claim 9, further comprising:  
compressing the operating system with one or more advanced compression encoders to provide the operating system in compressed form.

84. (Previously Presented) The method of claim 9, wherein the decompressing the first and second portions comprise:

decompressing the first and second portions with one or more advanced decompression decoders.

85. – 86. (Cancelled)

87. (Previously Presented) The method of claim 9, wherein the memory is physical.

88. – 90. (Cancelled)

91. (Previously Presented) The method of claim 9, wherein the operating system is comprised of multiple files.

92. (Previously Presented) The method of claim 9, wherein the operating system comprises program code associated with one or more application programs of the computer system.

93. (Previously Presented) The method of claim 9, wherein the operating system in compressed form comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

94. (Previously Presented) The method of claim 92, wherein the one or more application programs are comprised of multiple files.

95. (Previously Presented) The method of claim 9, wherein the accessing comprises:

accessing the first portion from the second memory via direct memory access.



96. (Previously Presented) The method of claim 9, wherein Huffman encoding is utilized to encode the operating system in compressed form.

97. (Previously Presented) The method of claim 9, wherein Lempel-Ziv encoding is utilized to encode the operating system in compressed form.

98. (Previously Presented) The method of claim 9, wherein a plurality of encoders are utilized to encode the operating system in compressed form.

99. (Previously Presented) The method of claim 12, wherein the boot data in compressed form represents a plurality of files.

100. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with the operating system.

101. (Previously Presented) The method of claim 12, further comprising:  
compressing boot data in compressed form utilizing one or more advanced compression encoders to provide the boot data in compressed form.

102. (Previously Presented) The method of claim 12, wherein the decompressing comprises:

decompressing the boot data in compressed form utilizing one or more advanced decompression decoders.

103. – 104. (Cancelled)

105. (Previously Presented) The method of claim 12, wherein the memory is physical.

106. – 108. (Cancelled)

109. (Previously Presented) The method of claim 12, wherein the operating system is comprised of multiple files.

110. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with one or more application programs of the computer system.

111. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

112. (Previously Presented) The method of claim 110, wherein the one or more application programs are comprised of multiple files.

113. (Previously Presented) The method of claim 12, wherein the accessing comprises:

accessing the boot data in compressed form from the memory via direct memory access.

114. (Previously Presented) The method of claim 12, wherein Huffman encoding is utilized to encode the boot data in compressed form.

115. (Previously Presented) The method of claim 12, wherein Lempel-Ziv encoding is utilized to encode the boot data in compressed form.

116. (Previously Presented) The method of claim 12, wherein a plurality of encoders are utilized to encode the boot data in compressed form.

117. (Previously Presented) The method of claim 14, wherein the compressed boot data represents a plurality of files.

118. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with the operating system.

119. (Previously Presented) The method of claim 14, further comprising:  
compressing the boot data with one or more advanced compression encoders to provide the compressed boot data.

120. (Previously Presented) The method of claim 14, wherein the decompressing comprises:

decompressing the compressed boot data with one or more advanced decompression decoders.

121. – 122. (Cancelled)

123. (Previously Presented) The method of claim 14, wherein the memory is physical.

124. – 126. (Cancelled)

127. (Previously Presented) The method of claim 14, wherein the operating system is comprised of multiple files.

128. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with one or more application programs of the computer system.

129. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

130. (Previously Presented) The method of claim 128, wherein the one or more application programs are comprised of multiple files.

131. (Previously Presented) The method of claim 14, wherein the accessing comprises:

accessing the compressed boot data from the memory via direct memory access.

132. (Previously Presented) The method of claim 14, wherein Huffman encoding is utilized to encode the compressed boot data.

133. (Previously Presented) The method of claim 14, wherein Lempel-Ziv encoding is utilized to encode the compressed boot data.

134. (Previously Presented) The method of claim 14, wherein a plurality of encoders are utilized to encode the compressed boot data.

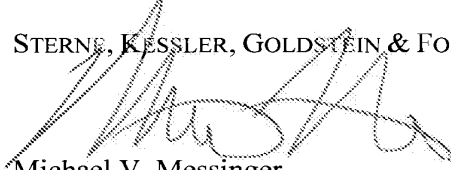
**Remarks**

Reconsideration of this Application and entry of the above Amendment is respectfully requested. Upon entry of the foregoing amendment, claims 1-4, 6-20, 22-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123, 127-134 are allowed in the application, with claims 1, 6-7, 9, 12, and 14-15 being the independent claims. Claims 5, 21, 31-32, 34-36, 49-50, 52-54, 67-68, 70-72, 85-86, 88-90, 103-104, 106-108, 121-122, and 124-126 were previously cancelled. Claim 77 is sought to be amended to correct formal matters in this claim without changing the scope thereof. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Reconsideration of this application and entry of the above Amendments are respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: October 3, 2013

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

1753695\_1.DOCX

Atty. Dkt. No. 2855.004000B

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Shawn Michael Buchanan/Shanova Banks			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
Utility Appl Issue Fee	1501	1	1780	1780
Publ. Fee- Early, Voluntary, or Normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>2080</b>



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	17028407
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Shawn Michael Buchanan/Shanova Banks
<b>Filer Authorized By:</b>	Shawn Michael Buchanan
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	03-OCT-2013
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	13:36:50
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$2080
RAM confirmation Number	12879
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000B_if_312am.pdf	2656946 5529cc15c6c200f5e590b172ed8b27ca676f2b38	yes	26
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Miscellaneous Incoming Letter	1	1	
		Issue Fee Payment (PTO-85B)	2	3	
		Amendment after Notice of Allowance (Rule 312)	4	4	
		Claims	5	25	
		Applicant Arguments/Remarks Made in an Amendment	26	26	
<b>Warnings:</b>					
<b>Information:</b>					
2	Fee Worksheet (SB06)	fee-info.pdf	32168 affcb47166081d9a943675bcd4168d0acc2d5c	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2689114		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

MICHAEL V. MESSINGER  
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MIKEM@SKGF.COM



October 3, 2013

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Confirmation No. 8978**  
***Mail Stop Issue Fee***

Re: Allowed U.S. Utility Patent Application  
Appl. No. 13/118,122; Filed: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems and  
Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

In response to the **Notice of Allowance and Fee(s) Due** dated September 19, 2013, the following documents are transmitted for appropriate action by the U.S. Patent and Trademark Office:

1. Online Credit Card Payment Authorization in the amount of **\$2,080.00** to cover:  
**\$1,780.00** Issue Fee; and  
**\$ 300.00** Publication Fee;
2. Issue Fee Transmittal (Form PTOL-85); and
3. Amendment Under 37 C.F.R. § 1.312.

The above-listed documents are filed electronically through EFS-Web.

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read 'Michael V. Messinger', written over a faint, dotted-line signature strip.

Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/S-B/srb  
Enclosures

1753683\_1.DOCX



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

26111 7590 09/19/2013
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SURYAWANSHI, SURESH

ART UNIT PAPER NUMBER

2115

DATE MAILED: 09/19/2013

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

13/118,122 05/27/2011 James J. Fallon 2855.004000B 8978

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

Table with 7 columns: APPLN. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

nonprovisional UNDISCOUNTED \$1780 \$300 \$0 \$2080 12/19/2013

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26111                      7590                      09/19/2013  
**STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.**  
 1100 NEW YORK AVENUE, N.W.  
 WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1780	\$300	\$0	\$2080	12/19/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
SURYAWANSHI, SURESH	2115	713-002000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. <b>Use of a Customer Number is required.</b></p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2</p> <p>_____ 3</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_ (B) RESIDENCE: (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	--

5. **Change in Entity Status** (from status indicated above)

Applicant certifying micro entity status. See 37 CFR 1.29

Applicant asserting small entity status. See 37 CFR 1.27

Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

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NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

---

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

---

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/118,122 05/27/2011 James J. Fallon 2855.004000B 8978

26111 7590 09/19/2013
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SURYAWANSHI, SURESH

ART UNIT PAPER NUMBER

2115

DATE MAILED: 09/19/2013

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



<b>Notice of Allowability</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115	<b>AIA (First Inventor to File) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendments filed on 9/6/13.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
2.  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
3.  The allowed claim(s) is/are 1-4,6-20,22-30,33,37-48,51,55-66,69,73-84,87,91-102,105,109-120,123 and 127-134. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a)  All    b)  Some    \*c)  None of the:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has **THREE MONTHS FROM THE "MAILING DATE"** of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in **ABANDONMENT** of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
 including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Examiner's Amendment/Comment                  |
| 2. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>9/6/13</u> | 6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                 | 7. <input type="checkbox"/> Other _____.                                  |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____.                                     |   |

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2115

<b>Search Notes</b>  	<b>Application/Control No.</b>  13118122	<b>Applicant(s)/Patent Under Reexamination</b>  FALLON ET AL.
	<b>Examiner</b>  SURESH SURYAWANSHI	<b>Art Unit</b>  2115

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
713	2	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS

SEARCH NOTES		
Search Notes	Date	Examiner
EAST; USPAT; US-PGPUB; EPO; JPO; IBM_TDB; NPL	5/11/12, 5/14/12	SKS
Search updated	12/26/12	SKS
Search updated	7/16/13	SKS
Search updated	9/16/13	SKS
Claim language searched in US-PGPUB	9/16/13	SKS

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
713	1	5/11/12, 5/14/12	SKS
711	113	5/11/12, 5/14/12	SKS

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**INTERFERENCE SEARCH**

<b>US Class/ CPC Symbol</b>	<b>US Subclass / CPC Group</b>	<b>Date</b>	<b>Examiner</b>
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS
Search updated		9/16/13	SKS

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## EAST Search History

## EAST Search History (Prior Art)


Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	("8502707" "8504710").pn.	USPAT	OR	OFF	2013/09/16 15:01
S2	1	list adj2 boot adj1 data and load\$3 with portion near2 boot adj1 data	USPAT	OR	OFF	2013/09/16 15:59
S3	2	list adj2 boot adj1 data and load\$3 with portion near2 boot adj1 data	US-PGPUB	OR	OFF	2013/09/16 15:59
S4	0	list adj2 boot adj1 data and load\$3 with portion near2 boot adj1 data	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:00
S5	0	load\$3 with portion near2 boot adj1 data with compressed	USPAT	OR	OFF	2013/09/16 16:01
S6	0	load\$3 with portion near2 boot adj1 data with compressed	US-PGPUB	OR	OFF	2013/09/16 16:02
S7	0	load\$3 with portion near2 boot adj1 data with compressed	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:02
S8	2	portion adj2 boot adj1 data with compressed	USPAT	OR	OFF	2013/09/16 16:05
S9	3	portion adj2 boot adj1 data with compressed	US-PGPUB	OR	OFF	2013/09/16 16:06
S10	0	portion adj2 boot adj1 data with compressed	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:06
S11	3	maintain\$3 near2 list near2 boot adj1 data	USPAT	OR	OFF	2013/09/16 16:07
S12	5	maintain\$3 near2 list near2 boot adj1 data	US-PGPUB	OR	OFF	2013/09/16 16:07
S13	0	maintain\$3 near2 list near2 boot adj1 data	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:08
S14	3	boot adj1 data near3 compressed adj1 form	USPAT	OR	OFF	2013/09/16 16:12
S15	3	boot adj1 data near3 compressed adj1 form	US-PGPUB	OR	OFF	2013/09/16 16:12
S16	0	boot adj1 data near3 compressed adj1 form	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:13
S17	5	portion adj2 operating adj1 system near3 compressed	USPAT	OR	OFF	2013/09/16 16:15
S18	1	portion adj2 operating adj1 system near3 compressed	US-PGPUB	OR	OFF	2013/09/16 16:18
S19	0	portion adj2 operating adj1 system near3 compressed	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16 16:19
S20	1	operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	USPAT	OR	OFF	2013/09/16 16:31

S21	1	operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	US-PGPUB	OR	OFF	2013/09/16:16:31
S22	0	operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	EPO; JPO; IBM_TDB	OR	OFF	2013/09/16:16:31
S23	111	fallon.in. with james	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:32
S24	52	fallon.in. with james and realtime.as.	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:33
S25	12	fallon.in. with james and realtime.as. and load\$3 near3 (boot adj1 data operating adj1 system)	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:33
S26	188	buck.in. with john	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:37
S27	6	buck.in. with john and realtime.as.	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:37
S28	17	pickel.in. with paul	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:39
S29	23	mcerlain.in. with stephen	US-PGPUB; USPAT	OR	OFF	2013/09/16:16:41
S30	3830	713/1.ccls.	USPAT	OR	OFF	2013/09/16:16:47
S31	1535	713/1.ccls.	US-PGPUB	OR	OFF	2013/09/16:16:59
S32	1	713/1.ccls. and list adj2 boot adj1 data and load\$3 with portion near2 boot adj1 data	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:05
S33	0	713/1.ccls. and load\$3 with portion near2 boot adj1 data with compressed	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:05
S34	3	713/1.ccls. and portion adj2 boot adj1 data with compressed	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:06
S35	4	713/1.ccls. and maintain\$3 near2 list near2 boot adj1 data	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:06
S36	4	713/1.ccls. and boot adj1 data near3 compressed adj1 form	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:06
S37	2	713/1.ccls. and portion adj2 operating adj1 system near3 compressed	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:07
S38	1	713/1.ccls. and operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	US-PGPUB; USPAT	OR	OFF	2013/09/16:17:07
S39	3469	713/2.ccls.	USPAT	OR	OFF	2013/09/16:17:08
S40	2215	713/2.ccls.	US-PGPUB	OR	OFF	2013/09/16:17:19
S41	3	713/2.ccls. and list adj2 boot adj1 data and	US-	OR	OFF	2013/09/16:

		load\$3 with portion near2 boot adj1 data	PGPUB; USPAT			17:26
S42	0	713/2.ccls. and load\$3 with portion near2 boot adj1 data with compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:26
S43	4	713/2.ccls. and portion adj2 boot adj1 data with compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:26
S44	7	713/2.ccls. and maintain\$3 near2 list near2 boot adj1 data	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:27
S45	5	713/2.ccls. and boot adj1 data near3 compressed adj1 form	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:27
S46	3	713/2.ccls. and portion adj2 operating adj1 system near3 compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:27
S47	2	713/2.ccls. and operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:28
S48	1524	711/113.ccls.	USPAT	OR	OFF	2013/09/16: 17:29
S49	812	711/113.ccls.	US- PGPUB	OR	OFF	2013/09/16: 17:34
S50	1	711/113.ccls. and list adj2 boot adj1 data and load\$3 with portion near2 boot adj1 data	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:36
S51	0	711/113.ccls. and load\$3 with portion near2 boot adj1 data with compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:37
S52	2	711/113.ccls. and portion adj2 boot adj1 data with compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:37
S53	3	711/113.ccls. and maintain\$3 near2 list near2 boot adj1 data	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:38
S54	3	711/113.ccls. and boot adj1 data near3 compressed adj1 form	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:38
S55	0	711/113.ccls. and portion adj2 operating adj1 system near3 compressed	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:39
S56	1	711/113.ccls. and operating adj1 system near3 compressed and partial\$2 near2 boot\$3 near2 computer	US- PGPUB; USPAT	OR	OFF	2013/09/16: 17:39

9/ 17/ 2013 8:47:07 AM

C:\Users\ssuryawanshi\Documents\EAST\Workspaces\13118122AcceleratedLoadingOfOSPart4.wsp

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE									
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013						
1	1	✓	✓	=	=						
2	2		✓	=	=						
3	3		✓	=	=						
4	4		✓	=	=						
	5		✓	-	-						
5	6		✓	=	=						
6	7		✓	=	=						
7	8		✓	=	=						
8	9		✓	=	=						
9	10		✓	=	=						
10	11		✓	=	=						
11	12		✓	=	=						
12	13		✓	=	=						
13	14		✓	=	=						
14	15			=	=						
15	16			=	=						
16	17			=	=						
17	18			=	=						
18	19			=	=						
19	20			=	=						
	21			✓	-						
20	22			=	=						
21	23			=	=						
22	24			=	=						
23	25			=	=						
24	26			=	=						
25	27			=	=						
26	28			=	=						
27	29			=	=						
28	30			=	=						
	31			✓	-						
	32			✓	-						
29	33			=	=						
	34			✓	-						
	35			✓	-						
	36			✓	-						

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>


N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013				
30	37			=	=				
31	38			=	=				
32	39			=	=				
33	40			=	=				
34	41			=	=				
35	42			=	=				
36	43			=	=				
37	44			=	=				
38	45			=	=				
39	46			=	=				
40	47			=	=				
41	48			=	=				
	49			✓	-				
	50			✓	-				
42	51			=	=				
	52			✓	-				
	53			✓	-				
	54			✓	-				
43	55			=	=				
44	56			=	=				
45	57			=	=				
46	58			=	=				
47	59			=	=				
48	60			=	=				
49	61			=	=				
50	62			=	=				
51	63			=	=				
52	64			=	=				
53	65			=	=				
54	66			=	=				
	67			✓	-				
	68			✓	-				
55	69			=	=				
	70			✓	-				
	71			✓	-				
	72			✓	-				




<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013				
56	73			=	=				
57	74			=	=				
58	75			=	=				
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60	77			=	=				
61	78			=	=				
62	79			=	=				
63	80			=	=				
64	81			=	=				
65	82			=	=				
66	83			=	=				
67	84			=	=				
	85			✓	-				
	86			✓	-				
68	87			=	=				
	88			✓	-				
	89			✓	-				
	90			✓	-				
69	91			=	=				
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71	93			=	=				
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73	95			=	=				
74	96			=	=				
75	97			=	=				
76	98			=	=				
77	99			=	=				
78	100			=	=				
79	101			=	=				
80	102			=	=				
	103			✓	-				
	104			✓	-				
81	105			=	=				
	106			✓	-				
	107			✓	-				
	108			✓	-				


<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013	09/17/2013				
82	109			=	=				
83	110			=	=				
84	111			=	=				
85	112			=	=				
86	113			=	=				
87	114			=	=				
88	115			=	=				
89	116			=	=				
90	117			=	=				
91	118			=	=				
92	119			=	=				
93	120			=	=				
	121			✓	-				
	122			✓	-				
94	123			=	=				
	124			✓	-				
	125			✓	-				
	126			✓	-				
95	127			=	=				
96	128			=	=				
97	129			=	=				
98	130			=	=				
99	131			=	=				
100	132			=	=				
101	133			=	=				
102	134			=	=				



<b>Issue Classification</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

US ORIGINAL CLASSIFICATION					INTERNATIONAL CLASSIFICATION								
CLASS		SUBCLASS			CLAIMED				NON-CLAIMED				
713		2			G	0	6	F	15 / 177 (2006.01.01)				
CROSS REFERENCE(S)					G	0	6	F	9 / 24 (2006.01.01)				
					G	0	6	F	12 / 00 (2006.01.01)				
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)												
713	1												
711	113												

NONE		<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	102	
/SURESH SURYAWANSHI/ Primary Examiner.Art Unit 2115	9/17/13	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	7B

<b>Issue Classification</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input checked="" type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47									
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	19	20	32	39	46	58	60	77	74	96	88	115	102	134
2	2		21	33	40	47	59	61	78	75	97	89	116		
3	3	20	22	34	41	48	60	62	79	76	98	90	117		
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	5	22	24	36	43	50	62	64	81	78	100	92	119		
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17	18	30	37	44	56	58	75	72	94	86	113	100	132		
18	19	31	38	45	57	59	76	73	95	87	114	101	133		

NONE		<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	102	
/SURESH SURYAWANSHI/ Primary Examiner.Art Unit 2115	9/17/13	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	7B

Substitute for form 1449/PTO  <div style="text-align: center;"><b>FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></div> (Use as many sheets as necessary)	<b>Complete if Known</b> Application Number: 13/118,122 Filing Date: May 27, 2011 First Named Inventor: James J. FALLON Art Unit: 2115 Examiner Name: SURYAWANSHI, Suresh Attorney Docket Number: 2855.004000B
Sheet 1 of 1	

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		Number-Kind Code <sup>2</sup> (if known)				
	US1	8,502,707		08-06-2013	Fallon	
	US2	8,504,710		08-06-2013	Fallon	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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			Filing Date	May 27, 2011	
			First Named Inventor	James J. FALLON	
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			Examiner Name	SURYAWANSHI, Suresh	
Sheet	1	of	2	Attorney Docket Number	2855.004000B

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	2 of 2		

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CONFIRMATION NO. 8978

<b>SERIAL NUMBER</b> 13/118,122	<b>FILING or 371(c) DATE</b> 05/27/2011 <b>RULE</b>	<b>CLASS</b> 713	<b>GROUP ART UNIT</b> 2115	<b>ATTORNEY DOCKET NO.</b> 2855.004000B	
<b>APPLICANTS</b> James J. Fallon, Armonk, NY; John Buck, Oceanside, NY; Paul F. Pickel, Bethpage, NY; Stephen J. McErlain, New York, NY;					
<b>** CONTINUING DATA *****</b> This application is a CON of 11/551,211 10/19/2006 PAT 8112619 which is a CON of 09/776,267 02/02/2001 PAT 7181608 which claims benefit of 60/180,114 02/03/2000 Yes /SKS/					
<b>** FOREIGN APPLICATIONS *****</b> None /SKS/					
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b> 06/10/2011					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input type="checkbox"/> No Verified and /SURESH SURYAWANSHI/ Acknowledged Examiner's Signature	<input type="checkbox"/> Met after Allowance Initials	<b>STATE OR COUNTRY</b> NY	<b>SHEETS DRAWINGS</b> 13	<b>TOTAL CLAIMS</b> 102 <sup>4-</sup>	<b>INDEPENDENT CLAIMS</b> 7 <sup>4-</sup>
<b>ADDRESS</b> STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 UNITED STATES			/SKS/	/SKS/	
<b>TITLE</b> Systems and Methods for Accelerated Loading of Operating Systems and Application Programs					
<b>FILING FEE RECEIVED</b> 11380	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

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Sheet 1 of 1	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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US007415530C1

(12) **INTER PARTES REEXAMINATION CERTIFICATE** (671st)

**United States Patent**  
**Fallon**

(10) **Number:** **US 7,415,530 C1**

(45) **Certificate Issued:** **Aug. 16, 2013**

(54) **SYSTEM AND METHODS FOR ACCELERATED DATA STORAGE AND RETRIEVAL**

(75) Inventor: **James J Fallon**, Armonk, NY (US)

(73) Assignee: **Realtime Data LLC**, New York, NY (US)

(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/001,927, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

*Primary Examiner* — Mark Sager

(57) **ABSTRACT**

Systems and methods for providing accelerated data storage and retrieval utilizing lossless data compression and decompression. A data storage accelerator includes one or a plurality of high speed data compression encoders that are configured to simultaneously or sequentially losslessly compress data at a rate equivalent to or faster than the transmission rate of an input data stream. The compressed data is subsequently stored in a target memory or other storage device whose input data storage bandwidth is lower than the original input data stream bandwidth. Similarly, a data retrieval accelerator includes one or a plurality of high speed data decompression decoders that are configured to simultaneously or sequentially losslessly decompress data at a rate equivalent to or faster than the input data stream from the target memory or storage device. The decompressed data is then output at rate data that is greater than the output rate from the target memory or data storage device. The data storage and retrieval accelerator method and system may employed: in a disk storage adapter to reduce the time required to store and retrieve data from computer to disk; in conjunction with random access memory to reduce the time required to store and retrieve data from random access memory; in a display controller to reduce the time required to send display data to the display controller or processor; and/or in an input/output controller to reduce the time required to store, retrieve, or transmit data.

**Reexamination Request:**  
No. 95/001,927, Mar. 2, 2012

**Reexamination Certificate for:**  
Patent No.: **7,415,530**  
Issued: **Aug. 19, 2008**  
Appl. No.: **11/553,426**  
Filed: **Oct. 26, 2006**

Certificate of Correction issued Dec. 2, 2008

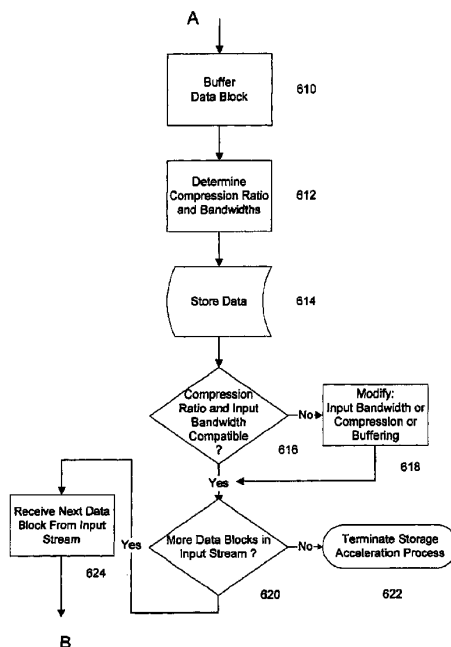
**Related U.S. Application Data**

(63) Continuation of application No. 10/628,795, filed on Jul. 28, 2003, now Pat. No. 7,130,913, which is a continuation of application No. 09/266,394, filed on Mar. 11, 1999, now Pat. No. 6,601,104.

(51) **Int. Cl.**  
**G06F 15/16** (2006.01)

(52) **U.S. Cl.**  
USPC ..... **709/231**

(58) **Field of Classification Search**  
None  
See application file for complete search history.



**1**  
**INTER PARTES**  
**REEXAMINATION CERTIFICATE**  
**ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

**Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.**

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims **1, 2, 16-21** and **23** is confirmed. New claims **24-26** are added and determined to be patentable.

Claims **3-15** and **22** were not reexamined.

*24. A system comprising:  
a memory device; and*

*a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, wherein a bandwidth of the received data stream is determined, said data stream includes a first data block and a second data block, said data stream is compressed by said data*

**2**

*accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, wherein a data rate of the compressed data stream is adjusted, by modifying a system parameter, to make a bandwidth of the compressed data stream compatible with a bandwidth of the memory device, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block.*

*25. The system of claim 1, wherein the data accelerator is configured to append a type descriptor to the first and second compressed data blocks in the compressed data stream, and wherein the type descriptor includes values corresponding to a plurality of encoding techniques that were applied to the compressed data stream.*

*26. The system of claim 1, wherein the data accelerator is configured to adjust the data rate of the compressed data stream by adjusting a compression ratio of a lossless encoder.*

\* \* \* \* \*

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	Systems and Methods for Accelerated Loading of Operating Systems and Application Programs			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Shawn Michael Buchanan/Tiana Glascoe			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	16785393
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	Systems and Methods for Accelerated Loading of Operating Systems and Application Programs
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Shawn Michael Buchanan/Tiana Glascoe
<b>Filer Authorized By:</b>	Shawn Michael Buchanan
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	06-SEP-2013
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<b>Time Stamp:</b>	17:26:34
<b>Application Type:</b>	Utility under 35 USC 111(a)

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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855_004000B_AMENDMENT_FOURTH_SUPPLEMENTAL_IDS.pdf	4103132 2cee457d4aa51a30639502992738dc4317f3ad7f	yes	37
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Transmittal Letter	1	2	
		Amendment/Req. Reconsideration-After Non-Final Reject	3	4	
		Claims	5	25	
		Amendment/Argument after Patent Board Decision	26	28	
		Transmittal Letter	29	34	
		Information Disclosure Statement (IDS) Form (SB08)	35	37	
<b>Warnings:</b>					
<b>Information:</b>					
2	Non Patent Literature	NPL1_Realtime_Opening_Appreal_Brief_FC_03062013.pdf	570728 c1dac3335e654b00ecb07b3e8e03cd2d27e4f74f	no	80
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3	Non Patent Literature	NPL2_1093_1097_1100_Defendants_Brief_05202013.pdf	374328 452d1365ca9464b1f92f9488142d3ee93232e2db	no	74
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<b>Information:</b>					
4	Non Patent Literature	NPL3_Realtime_Reply_Brief_FC_06192013.pdf	245540 c1ae4da8040c3bd5928d5fd1cf87abc54a462f83	no	53
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5	Non Patent Literature	NPL4_Final_Judgment_CMEGroup_11092012.pdf	1344649 373fe4f6fbd5ff6dcbdd3a9fc3d48a80345f3c3	no	10
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6	Non Patent Literature	NPL5_Final_Judgment_Morgan_Stanley_11092012.pdf	1069805 41e76c1cbd2d75e159a83fada0c4a02d7ee78746	no	8
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7	Non Patent Literature	NPL6_Final_Judgment_Reuters_11092012.pdf	799270 d9e05acce05f0666fc613f90d626932fb905b33e	no	6
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8	Non Patent Literature	NPL7_Opinion_and_Order_11092012.pdf	1816205 3601487059305ac57bfadc8433d5ef9d2a2c25451	no	13
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9	Non Patent Literature	NPL8_Suppl_Order_11092012.pdf	738190 61c7538770e931714bb5b8e759ba1a8fed69cebc	no	5
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10	Non Patent Literature	NPL9_Memorandum_Opinion_re_Shamos_Decl_08022012.pdf	1873341 4f7eddd0bdec6795f329e54e872babb305409303	no	13
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11	Non Patent Literature	NPL10_Amended_Opinion_and_Order_11152012.pdf	321164 ea65f366aef22a03c5061abd0d11a696094d8fc	no	48
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12	Non Patent Literature	NPL11_NOA_13154211_07112013.pdf	428430 886b48db02614b4a5fe3f2df25155921d8162e84	no	10
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13	Non Patent Literature	NPL12_NOA_13154239_08022013.pdf	414586 d98f5d6c2da56740604f5fc9a1d57a8a9bbba1f1	no	9
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14	Non Patent Literature	NPL13_NIIRC_95001927_07222013.pdf	173370 f857861aa7dd83d461807f127b49cb01d463587	no	5
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15	Non Patent Literature	NPL14_Right_of_Appeal_Notice_95001922_08152013.pdf	406321 1e5b30bca6c5d3b3c54095ac6454ddb5e5f39d10	no	12
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16	Non Patent Literature	NPL15_Right_of_Appeal_Notice_95001926_08162013.pdf	384675 014249c6c4fbec658379dbfd6d7aa0369529db	no	11
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17	Non Patent Literature	NPL16_Reexam_Certificate_95001927_08162013.pdf	101168 ca06d7a002351e6094fd4f4333c26905ae757b71	no	2
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18	Non Patent Literature	NPL17_Right_of_Appeal_Notice_95001928_08162013.pdf	440915 6d37682c3f3839f195702c1b1ab11e73b1abfe34	no	11
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19	Non Patent Literature	NPL18_Right_of_Appeal_Notice_95001924_08292013.pdf	888486 6262979377575e4988485139729e8023b0e8f38b	no	23
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20	Fee Worksheet (SB06)	fee-info.pdf	30201 7f4e7cbc1233b74ae640cc6af1d56b9240b65	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			16524504		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

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September 6, 2013

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Confirmation No. 8978  
Art Unit 2115  
*Attn: Mail Stop Amendment*

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of **\$180.00** in payment of the fee under 37 C.F.R. § 1.17(p);
2. Amendment and Reply under 37 C.F.R. § 1.111;
3. Fourth Supplemental Information Disclosure Statement;
4. Form PTO/SB/08a (1 sheet) listing 2 documents (**US1-US2**);
5. Form PTO/SB/08b (2 sheets) listing 18 documents (**NPL1-NPL18**); and
6. Copies of cited documents (**NPL1-NPL18**).

***The above-listed documents are filed electronically through EFS-Web.***

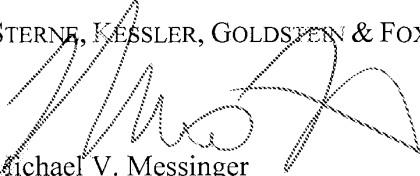
In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
September 6, 2013  
Page 2

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/S-B/srb  
Enclosures

1730526\_1.DOCX

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Amendment and Reply Under 37 C.F.R. § 1.111**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

In reply to the Office Action dated July 19, 2013, Applicants submit the following Amendment and Remarks.

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

***Amendments to the Specification***

Applicants respectfully request ¶ [0001] of the Specification as filed on May 27, 2011, and amended November 16, 2012, to be further amended as follows:

[0001] This application is a continuation of United States Patent Application No. 11/551,211, filed on October 19, 2006, now U.S. Patent No. 8,112,619, which is a continuation of United States Patent Application No. 09/776,267, filed on February 2, 2001, now U.S. Patent No. 7,181,608, which is based on a United States Provisional Application Serial No. 60/180,114, filed on February 3, 2000, all three of which are fully incorporated herein by reference in their entirety.



***Amendments to the Claims***

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a list of boot data for booting the computer system,  
wherein at least a portion of boot data is associated with the list of boot data;  
loading the at least a portion of boot data into a memory;  
accessing the loaded at least a portion of boot data in a compressed form from the memory; and

decompressing, on a just-in-time basis, the at least a portion of boot data in compressed form from the memory at a rate that decreases boot time relative to loading the operating system in an uncompressed form,

wherein the at least a portion of decompressed boot data is a portion of the operating system for the computer system.

2. (Currently Amended) The method of claim 1, further comprising:

updating the list of boot data by associating additional boot data with the list of boot data;

compressing the boot data ~~preloaded~~ loaded into the memory with a data compression engine; and

compressing the additional boot data with an encoder coupled to the data compression engine.

3. (Previously Presented) The method of claim 1, further comprising:  
updating the list of boot data by removing an association of additional boot data  
from the list of boot data.

4. (Previously Presented) The method of claim 1, further comprising:  
updating the list of boot data by associating additional boot data with the list of  
boot data; and  
compressing at least a portion of the additional boot data with a data compression  
encoder.

5. (Cancelled)

6. (Previously Presented) A method, comprising:  
maintaining a list of compressed boot data for booting a computer system;  
storing compressed boot data associated with the list of compressed boot data on  
a non-volatile memory;  
loading the compressed boot data from the non-volatile memory to a second  
memory;  
accessing the compressed boot data from the second memory;  
decompressing the compressed boot data to provide decompressed boot data; and  
utilizing the decompressed boot data to boot the computer system,

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wherein the accessing and the decompressing occur within a period of time which is less than a time to access the boot data from the non-volatile memory in an uncompressed form.

7. (Previously Presented) A system comprising:

a processor;

a memory; and

a non-volatile memory device configured to store boot data in compressed form for booting the system and logic code associated with the processor, the logic code including instructions executable by the processor for maintaining a list of boot data used for booting the system,

wherein the processor is configured to load at least a portion of the boot data in compressed form into the memory, and to access the at least a portion of the boot data in compressed form, and to decompress the at least a portion of the boot data in compressed form at a rate that decreases boot time relative to booting the system with uncompressed boot data to boot the system.

8. (Currently Amended) The system of claim 7, further comprising:

a data compression engine, coupled to the non-volatile memory, configured to compress boot data to provide the boot data in compressed form; and

a data compression encoder, coupled to the data compression engine, configured to compress additional boot data.

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9. (Previously Presented) A method of loading an operating system for booting a computer system, comprising:

storing substantially all of the operating system in compressed form on a non-volatile memory;

loading a first portion of the operating system in compressed form from the non-volatile memory to a second memory;

accessing the first portion from the second memory in compressed form;

decompressing the first portion to provide a decompressed first portion of the operating system;

utilizing the decompressed first portion to partially boot the computer system;

loading a second portion of the operating system in compressed form from the non-volatile memory to the second memory;

accessing the second portion from the memory in compressed form;

decompressing the second portion to provide a decompressed second portion of the operating system; and

utilizing the decompressed second portion to further partially boot the computer system,

wherein the first and second portions are accessed and decompressed at a rate that is faster than accessing the first and second portions from the non-volatile memory in uncompressed form.

10. (Currently Amended) The method of claim 9, further comprising:

compressing additional boot data to provide additional compressed boot data; and

storing the additional compressed boot data in the non-volatile memory.

11. (Currently Amended) The method of claim 10, wherein the compressing comprises:

~~further comprising:~~

compressing the additional boot data with a data compression encoder.

12. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

loading boot data in compressed form associated with a boot data list from a non-volatile boot device into a memory upon initialization of the computer system;

accessing the boot data in compressed form from the memory;

decompressing the boot data in compressed form accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form to provide decompressed boot data; and

utilizing the decompressed boot data to load the operating system for the computer system.

13. (Previously Presented) The method of claim 12, further comprising:

compressing additional boot data with a random access encoder.

14. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a boot data list;

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loading boot data associated with the boot data list from a non-volatile boot device into a memory ~~in compressed form~~ as compressed boot data upon initialization of the computer system;

accessing the compressed boot data from the memory; and

decompressing, on a just-in-time basis, the compressed boot data accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form.

15. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein at least a portion of the boot data is in compressed form;

loading the boot data into a memory; and

servicing requests for the boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing the compressed boot data and decompressing the compressed boot data at a rate that decreases an overall boot time relative to loading the operating system in uncompressed form.

16. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with the operating system.

17. (Previously Presented) The method of claim 15, wherein the operating system comprises multiple files.

18. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with one or more application programs of the computer system.

19. (Previously Presented) The method of claim 15, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

20. (Previously Presented) The method of claim 18, wherein the one or more application programs comprises multiple files.

21. (Cancelled)

22. (Previously Presented) The method of claim 15, further comprising:  
updating a list of the boot data.

23. (Previously Presented) The method of claim 22, wherein the updating comprises:

adding to the list any boot data requested by the computer system not previously stored in the list.

24. (Previously Presented) The method of claim 22, wherein the updating comprises:

removing from the list any boot data previously stored in the list and not requested by the computer system.

25. (Previously Presented) The method of claim 15, further comprising:  
maintaining a boot data list.

26. (Currently Amended) The method of claim 15, wherein the accessing  
comprises:  
accessing the boot data is accessed from a non-volatile memory device.

27. (Previously Presented) The method of claim 1, wherein the at least a portion  
of the boot data in compressed form represents a plurality of files.

28. (Previously Presented) The method of claim 1, wherein the at least a portion  
of the boot data in compressed form comprises program code associated with the  
operating system.

29. (Previously Presented) The method of claim 1, further comprising:  
compressing the at least a portion of the boot data with one or more advanced  
compression encoders to provide the at least a portion of the boot data in compressed  
form.

30. (Previously Presented) The method of claim 1, wherein the decompressing  
comprises:



decompressing the at least a portion of the boot data in compressed form utilizing one or more advanced decompression decoders.

31. ... 32. (Cancelled)

33. (Previously Presented) The method of claim 1, wherein the memory is physical.

34. – 36. (Cancelled)

37. (Previously Presented) The method of claim 1, wherein the operating system comprises multiple files.

38. (Previously Presented) The method of claim 1, wherein the boot data includes program code associated with one or more application programs of the computer system.

39. (Previously Presented) The method of claim 1, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

40. (Previously Presented) The method of claim 38, wherein the one or more application programs are comprised of multiple files.

41. (Previously Presented) The method of claim 1, wherein the accessing comprises:

accessing the at least a portion of the boot data in compressed form via direct memory access.

42. (Previously Presented) The method of claim 1, wherein Huffman encoding is utilized to encode the at least a portion of the boot data in compressed form.

43. (Previously Presented) The method of claim 1, wherein Lempel-Ziv encoding is utilized to encode the at least a portion of the boot data in compressed form.

44. (Previously Presented) The method of claim 1, wherein a plurality of encoders are utilized to encode the at least a portion of the boot data in compressed form.

45. (Previously Presented) The method of claim 6, wherein the compressed boot data represents a plurality of files.

46. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises program code associated with an operating system.

47. (Previously Presented) The method of claim 6, further comprising:  
compressing the boot data with one or more advanced compression encoders to provide the compressed boot data.

48. (Previously Presented) The method of claim 6, wherein the decompressing comprises:

decompressing the compressed boot data with one or more advanced decompression decoders.

49. – 50. (Cancelled)

51. (Previously Presented) The method of claim 6, wherein the second memory is physical.

52. – 54. (Cancelled)

55. (Previously Presented) The method of claim 46, wherein the operating system comprises multiple files.

56. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises program code associated with one or more application programs of the computer system.

57. (Previously Presented) The method of claim 6, wherein the compressed boot data comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

58. (Previously Presented) The method of claim 56, wherein the one or more application programs includes multiple files.

59. (Previously Presented) The method of claim 6, wherein the accessing comprises:

accessing the compressed boot data via direct memory access.

60. (Previously Presented) The method of claim 6, wherein Huffman encoding is utilized to encode the compressed boot data.

61. (Previously Presented) The method of claim 6, wherein Lempel-Ziv encoding is utilized to encode the compressed boot data.

62. (Previously Presented) The method of claim 6, wherein a plurality of encoders are utilized to encode the compressed boot data.

63. (Previously Presented) The system of claim 7, wherein the boot data in compressed form represents a plurality of files.

64. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with an operating system.

65. (Previously Presented) The system of claim 7, further comprising:

one or more advanced compression encoders configured to compress the boot data to provide the boot data in compressed form.

66. (Previously Presented) The system of claim 7, further comprising:

one or more advanced decompression decoders configured to decompress the boot data in compressed form.

67. --- 68. (Cancelled)

69. (Previously Presented) The system of claim 7, wherein the memory is physical.

70. --- 72. (Cancelled)

73. (Previously Presented) The system of claim 7, wherein the boot data in compressed form is comprised of multiple files.

74. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with one or more application programs of the system.

75. (Previously Presented) The system of claim 7, wherein the boot data comprises program code associated with a combination of an operating system of the system and one or more application programs.

76. (Previously Presented) The system of claim 74, wherein the one or more application programs are comprised of multiple files.

77. (Previously Presented) The system of claim 7, wherein the processor is further configured to access the at least a portion of the boot data in compressed form the memory via direct memory access.

78. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Huffman encoding to encode the boot data to provide the boot data in compressed form.

79. (Previously Presented) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode the boot data to provide the boot data in compressed form.

80. (Previously Presented) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in compressed form.

81. (Previously Presented) The method of claim 9, wherein the operating system in compressed form represents a plurality of files.

82. (Previously Presented) The method of claim 9, wherein the operating system in compressed form comprises program code associated with an operating system.

83. (Previously Presented) The method of claim 9, further comprising:  
compressing the operating system with one or more advanced compression encoders to provide the operating system in compressed form.

84. (Previously Presented) The method of claim 9, wherein the decompressing the first and second portions comprise:  
decompressing the first and second portions with one or more advanced decompression decoders.

85. – 86. (Cancelled)

87. (Previously Presented) The method of claim 9, wherein the memory is physical.

88. – 90. (Cancelled)

91. (Previously Presented) The method of claim 9, wherein the operating system is comprised of multiple files.

92. (Previously Presented) The method of claim 9, wherein the operating system comprises program code associated with one or more application programs of the computer system.

93. (Previously Presented) The method of claim 9, wherein the operating system in compressed form comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

94. (Previously Presented) The method of claim 92, wherein the one or more application programs are comprised of multiple files.

95. (Previously Presented) The method of claim 9, wherein the accessing comprises:

accessing the first portion from the second memory via direct memory access.

96. (Previously Presented) The method of claim 9, wherein Huffman encoding is utilized to encode the operating system in compressed form.

97. (Previously Presented) The method of claim 9, wherein Lempel-Ziv encoding is utilized to encode the operating system in compressed form.

98. (Previously Presented) The method of claim 9, wherein a plurality of encoders are utilized to encode the operating system in compressed form.

99. (Previously Presented) The method of claim 12, wherein the boot data in compressed form represents a plurality of files.



Reply to Office Action of July 19, 2013

100. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with the operating system.

101. (Currently Amended) The method of claim 12, further comprising[[:]]:  
compressing the boot data in compressed form utilizing one or more advanced compression encoders to provide the boot data in compressed form.

102. (Previously Presented) The method of claim 12, wherein the decompressing comprises:

decompressing the boot data in compressed form utilizing one or more advanced decompression decoders.

103. – 104. (Cancelled)

105. (Previously Presented) The method of claim 12, wherein the memory is physical.

106. – 108. (Cancelled)

109. (Previously Presented) The method of claim 12, wherein the operating system is comprised of multiple files.

110. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with one or more application programs of the computer system.

111. (Previously Presented) The method of claim 12, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

112. (Previously Presented) The method of claim 110, wherein the one or more application programs are comprised of multiple files.

113. (Previously Presented) The method of claim 12, wherein the accessing comprises:

accessing the boot data in compressed form from the memory via direct memory access.

114. (Previously Presented) The method of claim 12, wherein Huffman encoding is utilized to encode the boot data in compressed form.

115. (Previously Presented) The method of claim 12, wherein Lempel-Ziv encoding is utilized to encode the boot data in compressed form.

116. (Previously Presented) The method of claim 12, wherein a plurality of encoders are utilized to encode the boot data in compressed form.

117. (Previously Presented) The method of claim 14, wherein the compressed boot data represents a plurality of files.

118. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with the operating system.

119. (Previously Presented) The method of claim 14, further comprising:  
compressing the boot data with one or more advanced compression encoders to provide the compressed boot data.

120. (Previously Presented) The method of claim 14, wherein the decompressing comprises:

decompressing the compressed boot data with one or more advanced decompression decoders.

121. – 122. (Cancelled)

123. (Previously Presented) The method of claim 14, wherein the memory is physical.

124. – 126. (Cancelled)

127. (Previously Presented) The method of claim 14, wherein the operating system is comprised of multiple files.

128. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with one or more application programs of the computer system.

129. (Previously Presented) The method of claim 14, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

130. (Previously Presented) The method of claim 128, wherein the one or more application programs are comprised of multiple files.

131. (Previously Presented) The method of claim 14, wherein the accessing comprises:

accessing the compressed boot data from the memory via direct memory access.

132. (Previously Presented) The method of claim 14, wherein Huffman encoding is utilized to encode the compressed boot data.

133. (Previously Presented) The method of claim 14, wherein Lempel-Ziv encoding is utilized to encode the compressed boot data.

134. (Previously Presented) The method of claim 14, wherein a plurality of encoders are utilized to encode the compressed boot data.

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-4, 6-20, 22-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123, and 127-134 are pending in the application, with claims 1, 6-7, 9, 12, and 14-15 being the independent claims. Claims 2, 8, 10-12, 14-15, 26, and 101 are sought to be amended. Claim 5 was previously cancelled without prejudice to or disclaimer of the subject matter therein. Claims 21, 31-32, 34-36, 49-50, 52-54, 67-68, 70-72, 85-86, 88-90, 103-104, 106-108, 121-122, and 124-126 are presently sought to be cancelled without prejudice to or disclaimer of the subject matter therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 112***

Claims 21, 32, 34-36, 49-50, 52-54, 67-68, 70-72, 85-86, 88-90, 103-104, 106-108, 121-122, and 124-126 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with one or more of the written description and enablement requirements.

Although Applicants do not agree with these rejections, Applicants have cancelled claims 21, 32, 34-36, 49-50, 52-54, 67-68, 70-72, 85-86, 88-90, 103-104, 106-108, 121-122, and 124-126 to expedite prosecution of this Application, thereby rendering the rejections moot. Furthermore, Applicants cancel these claims without prejudice or

Reply to Office Action of July 19, 2013

FALLON *et al.*  
Appl. No. 13/118,122

disclaimer. Applicants contend that the canceling of claims 21, 32, 34-36, 49-50, 52-54, 67-68, 70-72, 85-86, 88-90, 103-104, 106-108, 121-122, and 124-126 does not give rise to any implication regarding whether Applicants agree with or acquiesce to this rejection.

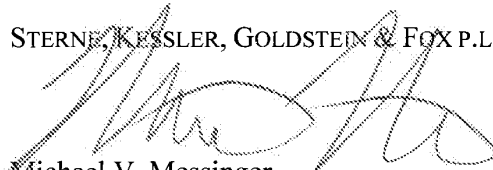
***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: September 6, 2013

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

1725728\_1.DOCX



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON *et al.*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems and Methods for  
Accelerated Loading of Operating  
Systems and Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Fourth Supplemental Information Disclosure Statement**

***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Petition to Expunge Third Party Requester's Improper Submission of Declarations and Strike Comments Directed to Examiner's Determination filed 06/26/2013; Patent Owner's Comments in Response to Examiner's Determination filed 05/10/2013; Examiner's Determination Under 37 C.F.R. § 41.77(d) mailed 04/10/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Decision on Petition Under 37 C.F.R. § 1.183 to Request Examiner Enter Evidence mailed 03/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Examiner's Answer to Appeal Brief mailed 03/14/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Examiner's Answer to Appeal Brief mailed 10/01/2012

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	Right of Appeal Notice mailed 08/15/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Response to Office Action filed 04/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Right of Appeal Notice mailed 08/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Response to Office Action filed 05/06/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	Right of Appeal Notice mailed 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	<i>Inter Partes</i> Reexamination Certificate issued 08/16/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	Right of Appeal Notice mailed 08/16/2013

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed at NPL13-NPL18.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Notice of Appeal Filed
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Notice of Appeal Filed
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Notice of Appeal Filed

5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08ba equivalent and PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed after the mailing date of a first Office Action on the merits. The required fee is provided through online credit card payment authorization in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

Documents US1-US2 are cited on the attached form PTO/SB/08A. Documents NPL1-NPL18 are cited on the attached form PTO/SB/08B. In accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents cited on the attached IDS Forms are submitted.

Applicants submit herewith actions from the following co-pending, commonly assigned U.S. Patent Application Nos.:

Document NPL11 is a copy of a Notice of Allowance mailed on July 11, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,211.

Document NPL12 is a copy of a Notice of Allowance mailed on August 2, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,239.

The identification of this action is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

Atty. Dkt. No. 2855.004000B

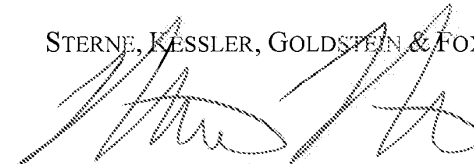
It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), and 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: 9/6/2013

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Washington, D.C. 20005-3934  
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875			Application or Docket Number <b>13/118,122</b>	Filing Date <b>05/27/2011</b>	<input type="checkbox"/> To be Mailed
ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO					
<b>APPLICATION AS FILED – PART I</b>					
(Column 1)			(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		
TOTAL CLAIMS (37 CFR 1.16(j))	minus 20 =	*	X \$	=	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=	
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL		

<b>APPLICATION AS AMENDED – PART II</b>							
(Column 1)		(Column 2)		(Column 3)			
AMENDMENT	<b>09/06/2013</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 103	Minus	** 133	= 0	X \$80 =	0
	Independent (37 CFR 1.16(h))	* 7	Minus	***7	= 0	X \$420 =	0
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	<b>0</b>

(Column 1)		(Column 2)		(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE  
/ROZENIA HARMON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**  
 If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/118,122	05/27/2011	James J. Fallon	2855.004000B	8978
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26111 7590 07/19/2013  
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
1100 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2115

MAIL DATE	DELIVERY MODE
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07/19/2013

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 13/118,122	<b>Applicant(s)</b> FALLON ET AL.	
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115	<b>AIA (First Inventor to File) Status</b> No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 9 July 2013.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5)  Claim(s) 1-4 and 6-134 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6)  Claim(s) 1-4, 6-20, 22-30, 33, 37-48, 51, 55-66, 69, 73-84, 87, 91-102, 105, 109-120, 123 and 127-134 is/are allowed.
- 7)  Claim(s) See Continuation Sheet is/are rejected.
- 8)  Claim(s) \_\_\_\_\_ is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a)  All    b)  Some \*    c)  None of the:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/9/13.
- 3)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 4)  Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims rejected are 21,31,32,34-36,49,50,52-54,67,68,70-72,85,86,88-90,103,104,106-108,121,122 and 124-126.

**DETAILED ACTION**

1. Claims 1-4 and 6-134 are presented for examination.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of 35 U.S.C. 112(a):  
(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 21 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of “updating the boot data” that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in the provided specification. Applicants disclose about maintaining/updating a list of boot data. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

4. Claim 21 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach "updating the boot data" anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

5. Claims 21, 49, 67, 85, 103 and 121 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of "... contiguous portion of the memory ..." that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in the provided specification. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

6. Claims 21, 49, 67, 85, 103 and 121 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach "... contiguous portion of the memory ..." anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

7. Claims 32, 50, 68, 86, 104 and 122 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of "the memory is virtual" that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in

the provided specification. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

8. Claims 32, 50, 68, 86, 104 and 122 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach “the memory is virtual” anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

9. Claims 34, 52, 70, 88, 106 and 124 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of “the compressed boot data is larger than 512 kilobytes” that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in the provided specification. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

10. Claims 34, 52, 70, 88, 106 and 124 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach “the compressed boot data is larger than 512 kilobytes” anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

11. Claims 35, 53, 71, 89, 107 and 125 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of “the at least a portion of the boot data in compressed form is larger than 640 kilobytes” that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in the provided specification. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

12. Claims 35, 53, 71, 89, 107 and 125 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach “the at least a portion of the boot data in compressed form is larger than 640 kilobytes” anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

13. Claims 36, 54, 72, 90, 108 and 126 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for



pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants recite a new limitation of “the compression ratio of the at least a portion of the boot data in compressed form is greater than 2.5:1” that is not disclosed anywhere in the provided specification. Applicants fail to teach this new limitation anywhere in the provided specification. Examiner is unable to find any support for this new limitation in the provided specification or drawings.

14. Claims 36, 54, 72, 90, 108 and 126 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fail to teach “the compression ratio of the at least a portion of the boot data in compressed form is greater than 2.5:1” anywhere in the provided specification. The examiner submits that it would require undue experimentation to make and use the claimed new limitation.

***Terminal Disclaimer***

15. The terminal disclaimer filed on 7/9/13 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of patent numbers 7,181,608, 8,090,936 and 8,112,619 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SURESH SURYAWANSHI whose telephone number is (571)272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SURESH SURYAWANSHI/  
Primary Examiner, Art Unit 2115

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No.: 8978
FALLON <i>et al.</i>	Art Unit: 2115
Appl. No.: 13/118,122	Examiner: SURYAWANSHI, Suresh
Filed: May 27, 2011	Atty. Docket: 2855.004000B
For: <b>Systems and Methods for Accelerated Loading of Operating Systems and Application Programs</b>	

**Third Supplemental Information Disclosure Statement**

*Mail Stop RCE*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,714,747 (Control No. 95/001,517)	Petition to Expunge Third Party Requester's Improper Submission of Declarations and Strike Comments Directed to Examiner's Determination filed 06/26/2013; Patent Owner's Comments in Response to Examiner's Determination filed 05/10/2013; Examiner's Determination Under 37 C.F.R. § 41.77(d) mailed 04/10/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,417,568 (Control No. 95/001,533)	Decision on Petition Under 37 C.F.R. § 1.183 to Request Examiner Enter Evidence mailed 03/20/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,777,651 (Control No. 95/001,581)	Examiner's Answer to Appeal Brief mailed 03/14/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,400,274 (Control No. 95/001,544)	Examiner's Answer to Appeal Brief mailed 10/01/2012

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings filed by Cellco Partnership d/b/a Verizon Wireless, involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/001,922)	Patent Owner's Supplemental Response to Action Closing Prosecution filed 05/15/2013; Patent Owner's Response to Action Closing Prosecution filed 05/09/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/001,923)	Patent Owner's Supplemental Response to Office Action filed 04/29/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,352,300 (Control No. 95/001,924)	Patent Owner's Response to Action Closing Prosecution filed 05/09/2013; Action Closing Prosecution mailed 04/09/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,395,345 (Control No. 95/001,925)	Patent Owner's Supplemental Response to Office Action filed 05/06/2013

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/001,926)	Patent Owner's Reply to Action Closing Prosecution filed 04/05/2013; Action Closing Prosecution mailed 03/05/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,415,530 (Control No. 95/001,927)	Right of Appeal Notice mailed 05/31/2013; Action Closing Prosecution mailed 04/03/2013
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/001,928)	Patent Owner's Reply to Action Closing Prosecution filed 04/05/2013; Action Closing Prosecution mailed 03/05/2013

Applicants invite the Examiner to review the Requests for Reexamination, issued Office Actions, replies, and any other papers in the above-identified reexamination proceedings. If the Examiner is unable to obtain copies of papers in any reexamination proceeding, copies can be provided to the Examiner upon request. Those documents which may be material that are not already of record in this patent application are listed on the accompanying Form PTO/SB/08. For example, documents related to the reexaminations are listed at NPL61-NPL109.

Notice of Related Litigation

Applicants notify the Patent and Trademark Office of the following litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

<b>No.</b>	<b>Case</b>	<b>Status</b>
1	<i>Realtime Data LLC d/b/a IXO v. Packeteer, Inc. et al.</i> , No. 6:08-cv-00144-LED (E.D. Texas)	Dismissed

Applicants also notify the Patent and Trademark Office of the following additional litigation involving U.S. Patents commonly-owned with the current patent application, the subject matter of which may be related to the present patent application:

No.	Case	Status
2	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al.</i> No. 1:11-cv-06698-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00333-LED)	Notice of Appeal Filed
3	<i>Realtime Data LLC d/b/a IXO v. Morgan Stanley et al.</i> , No. 1:11-cv-06696-RJH (S.D. New York) (transferred from E.D. Texas; 6:09-cv-00326-LED)	Notice of Appeal Filed
4	<i>Realtime Data LLC d/b/a IXO v. CME Group Inc., et al.</i> , No. 1:11-cv-06697-RJH (S.D. New York) (transferred from E.D. Texas; No. 6:09-cv-00327-LED)	Notice of Appeal Filed
5	<i>Chicago Board Options Exchange, Inc., v. Realtime Data LLC d/b/a IXO</i> , No. 09-cv-4486 (N.D. Ill.)	Dismissed
6	<i>Thomson Reuters Corporation v. Realtime Data, LLC d/b/a IXO</i> , No. 1:09-cv-07868-RMB (S.D.N.Y)	Consolidated with Case No. 2
7	<i>Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al. (II)</i> , No. 6:10-cv-246 (E.D. Texas)	Consolidated with Case No. 4
8	<i>Realtime Data LLC d/b/a IXO v. Thomson Reuters Corporation et al. (II)</i> , No. 6:10-cv-247 (E.D. Texas)	Consolidated with Case No. 2
9	<i>Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al. (II)</i> , No. 6:10-cv-248 (E.D. Texas)	Consolidated with Case No. 3
10	<i>Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.</i> , No. 6:10-cv-00493 (E.D. Texas)	Notice of Appeal Filed

Updated court docket listings downloaded July 8, 2013 for litigations previously disclosed and pending are submitted herewith as NPL119-NPL122.

*Realtime Data, LLC d/b/a IXO v. MetroPCS Texas, LLC et al.*

Applicants submit herewith documents related to the above-listed litigation as documents NPL27-NPL41.

Realtime Data LLC d/b/a/ IXO v. Morgan Stanley, et al.;  
Realtime Data LLC d/b/a/ IXO v. CME Group Inc., et al.; and  
Realtime Data LLC d/b/a/ IXO v. Thomson Reuters Corp., et al.

Applicants submit herewith documents related to the above-listed litigations as documents US1-US3 and NPL1-NPL26 with confidential information redacted.

Information Disclosure Statement

Listed on accompanying IDS Forms PTO/SB/08a equivalent and/or PTO/SB/08b equivalent are documents that may be considered material to the patentability of this application as defined in 37 C.F.R. §1.56, and in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.97 and 1.98.

Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS/



Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing of a first Office Action and after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

Documents US1-US8 are cited on the attached form PTO/SB/08A. Documents NPL1-NPL122 are cited on the attached form PTO/SB/08B. Copies of documents NPL1-NPL15 and NPL17-NPL122 are submitted herewith. Due to its file format, document NPL16 cannot be submitted electronically, and is therefore presented on the accompanying CD labeled as document NPL16, submitted via hand-carry. In accordance with 37 C.F.R. § 1.98(a)(2), no copies of U.S. patents and patent application publications cited on the attached IDS Forms are submitted.

Applicants submit herewith actions from the following co-pending, commonly assigned U.S. Patent Application Nos.:

Document NPL42 is a copy of a Notice of Allowance mailed on June 21, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/400,008.

Document NPL43 is a copy of a Final Office Action mailed on June 26, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,239.

Document NPL44 is a copy of a Notice of Allowance mailed on July 12, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/857,238.

Document NPL45 is a copy of a Notice of Allowance mailed on July 16, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/703,042.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

Document NPL46 is a copy of a Non-Final Office Action mailed on July 20, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/482,800.

Document NPL47 is a copy of a Notice of Allowance mailed on November 6, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,427.

Document NPL48 is a copy of a Notice of Allowance mailed on November 15, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/703,042.

Document NPL49 is a copy of a Non-Final Office Action mailed on November 29, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/857,238.

Document NPL50 is a copy of a Final Office Action mailed on December 4, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 09/969,987.

Document NPL51 is a copy of a Final Office Action mailed on December 13, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/101,994.

Document NPL52 is a copy of a Supplemental Notice of Allowability mailed December 18, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/703,042.

Document NPL53 is a copy of a Notice of Allowance mailed December 28, 2012 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/690,125.

Document NPL54 is a copy of a Non-Final Office Action mailed on January 15, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,419.

Document NPL55 is a copy of a Non-Final Office Action mailed on February 19, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/482,800.

Document NPL56 is a copy of a Notice of Allowance mailed on March 4, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/703,042.

Document NPL57 is a copy of a Non-Final Office Action mailed on April 15, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/690,125.

Document NPL58 is a copy of a Notice of Allowance mailed on April 24, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 13/154,239.

Document NPL59 is a copy of a Notice of Allowance mailed on May 14, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,427.

Document NPL60 is a copy of a supplemental Notice of Allowance mailed on May 15, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,427.

Document NPL110 is a copy of a Notice of Allowance mailed on June 17, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/857,238.

Document NPL111 is a copy of a supplemental Notice of Allowance mailed on June 18, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 12/703,042.

Document NPL112 is a copy of supplemental Notice of Allowance mailed on July 2, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 11/553,427.

Document NPL113 is a copy of a Non-Final Office Action mailed on July 3, 2013 in the prosecution of co-pending, commonly-assigned U.S. Application No. 09/969,987.

The identification of these actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/776,267, filed February 2, 2001 (now U.S. Patent No. 7,181,608), and 11/551,211, filed October 19, 2006 (now U.S. Patent No. 8,112,619), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

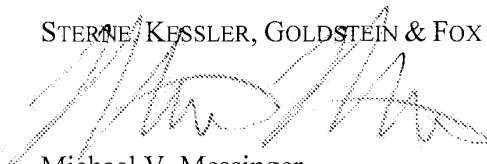
ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

Date: July 9, 2013

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
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/Suresh Suryawanshi/

07/17/2013

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./ Atty. Dkt. No. 3855 004000B

**EAST Search History**

**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	4	("5475388" "5987432" "6909745" "8275897").pn.	USPAT	OR	OFF	2013/07/16 10:42
S2	4	"20020169950" "20090125698" "20120194362" "20120239921"	US-PGPUB	OR	OFF	2013/07/16 11:12

**7/ 17/ 2013 11:37:13 AM**

**C:\ Users\ ssuryawanshi\ Documents\ EAST\ Workspaces\ 13118122AcceleratedLoadingOfOSPart3.wsp**

Substitute for form 1449/PTO			<b>Complete if Known</b>		
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>			Application Number	13/118,122	
			Filing Date	May 27, 2011	
			First Named Inventor	James J. FALLON	
			Art Unit	2115	
			Examiner Name	SURYAWANSHI, Suresh	
Sheet	1	of	13	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Defendants' Supplemental Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed May 17, 2012, 54 pages.	
	NPL2	Expert Report of Michael Brogioli Regarding Asserted Claims of U.S. Patent Nos. 7,417,568 and 7,777,651, with Exhibit A: List of Materials Reviewed, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 26 pages.	
	NPL3	Exhibit 1, Curriculum Vitae of Michael C. Brogioli, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 9 pages.	
	NPL4	Exhibit 2, [Proposed] Order Adopting the Parties' Agreed Claim Constructions, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 6 pages.	
	NPL5	Exhibit 3, The Parties' Disputed Claim Constructions, revised May 3, 2012, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 6 pages.	
	NPL6	Exhibit 4, E-Mail Correspondence between James Shalek and Brett Cooper, dated May 17 and 18, 2012, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	
	NPL7	Exhibit 5, Source Code Chart for U.S. Pat. No. 7,417,568 comparing representative elements of the NQDSLIB source code (April 29, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	

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		Attorney Docket Number	2855.004000B

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	NPL8	Exhibit 6, Source Code Chart for U.S. Pat. No. 7,417,568 comparing representative elements of the NQDSLIB source code (May 02, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	
	NPL9	Exhibit 7, Source Code Chart for U.S. Pat. No. 7,777,651 comparing representative elements of the NQDSLIB source code (April 29, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 21 pages.	
	NPL10	Exhibit 8, Source Code Chart for U.S. Pat. No. 7,777,651 comparing representative elements of the NQDSLIB source code (May 02, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 21 pages.	
	NPL11	Invalidity Expert Report of Dr. James A. Storer (Redacted), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 227 pages.	
	NPL12	Defendants' Claim Construction Tutorial, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 54 pages.	
	NPL13	Opinion and Order (Markman), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 22, 2012, 41 pages.	
	NPL14	Opinion and Order (Partial Motion for Summary Judgment re Written Description: "Data Packets"), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 26, 2012, 8 pages.	

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Sheet	3 of 13	Attorney Docket Number	2855.004000B

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	NPL15	Opinion and Order (Partial Motion for Summary Judgment re Data Decompression) filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 27, 2012, 21 pages.	
	NPL16	Technology Tutorial (.exe file), presentation filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 2012 (submitted on accompanying CD-ROM).	
	NPL17	Lilley, J., et al., "A Unified Header Compression Framework for Low-Bandwidth Links," MobiCom 2000, August 6-11, 2000. Boston, MA, 12 pages.	
	NPL18	"WAN Link Compression on HP Routers," Hewlett Packard Application Note, May 1995, 7 pages.	
	NPL19	"User Manual for XMill," 2001, 21 pages.	
	NPL20	"High Speed Network, Developer's Guide," Standard & Poor's Comstock, Version 1.1, 1994, pages 1-42, and 53-124.	
	NPL21	Larmouth, J., "ASN.1 Complete", Academic Press, 2000, pages xxi-xxvii, 1-45, 115-130, 168-172, 174, 270-276, and 443-472.	
	NPL22	Petty, J., "PPP Hewlett-Packard Packet-by-Packet Compression (HP PPC) Protocol," draft-ietf-ppext-hpppc-00.txt., October 1993, 7 pages.	
	NPL23	Friend, R., et al., "IP Payload Compression Using LZS," Network Working Group, Request for Comments: 2395, Category: Informational, December 1998; 9 pages.	

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	NPL24	"Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation," Series X: Data Networks and Open System Communications, OSI networking and system aspects - Abstract Syntax Notation One (ASN.1), International Telecommunication Union, ITU-T Recommendation X.680, December 1997, 109 pages.	
	NPL25	"Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER), Series X: Data Networks and Open System Communications, OSI networking and system aspects - Abstract Syntax Notation One (ASN.1), International Telecommunication Union, ITU-T Recommendation X.691, December 1997, 51 pages.	
	NPL26	Opinion and Order, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed September 24, 2012, 48 pages.	
	NPL27	Memorandum Opinion and Order, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed October 1, 2012, 22 pages.	
	NPL28	T-Mobile's Motion for Leave to Supplement Trial Witness List & Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 16 pages.	
	NPL29	Exhibit 2, Defendant T-Mobile's Supplemental Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 13 pages.	
	NPL30	Exhibit 3, FNLTD-74478, Flash Networks: Commercial Part Written by Flash Networks for Cegetel, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 6 pages.	
	NPL31	Exhibit 4, FNLTD-74444, Response to Cegetel RFP: Technical Section, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 5 pages.	
	NPL32	Exhibit 5, FNLTD-74926, Flash Networks Optimization Products Selected by AT&T Wireless, Flash Networks, Inc. Press Release, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 3 pages.	

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	NPL33	Exhibit 6, Flash Networks: Harmony, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 6 pages.	
	NPL34	Exhibit 7, Declaration of Adi Weiser, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL35	Exhibit 8, Declaration of Yoav Weiss, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL36	Exhibit 9, Declaration of Richard Luthi, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL37	Exhibit 13, Declaration of Gali Weiss, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL38	Exhibit 17, P.R. 3-1 Claim Chart for T-Mobile, U.S. Patent No. 7,161,506, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 33 pages.	
	NPL39	"Flash Networks Introduces NettGain 1100, New Products for Carriers & Enterprises that Enables Immediate Deployment of Wireless Data Solutions," Press Release, dated March 20, 2001, 2 pages.	
	NPL40	Amended Expert Report of Dr. Cliff Reader, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed July 30, 2012, 205 pages.	
	NPL41	Final Judgment, filed in Realtime Data, LLC, d/b/a IXO, v. T-Mobile USA, Inc., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed March 28, 2013, 1 page.	
	NPL42	Copy of Notice of Allowance for U.S. Appl. No. 11/400,008, mailed June 21, 2012, 8 pages.	

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	NPL43	Copy of Final Office Action for U.S. Appl. No. 13/154,239, mailed June 26, 2012, 14 pages.	
	NPL44	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed July 12, 2012, 5 pages.	
	NPL45	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed July 16, 2012, 8 pages.	
	NPL46	Copy of Non-Final Office Action for U.S. Appl. No. 13/482,800, mailed July 20, 2012, 14 pages.	
	NPL47	Copy of Notice of Allowance for U.S. Appl. No. 11/553,427, mailed November 6, 2012, 5 pages.	
	NPL48	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed November 15, 2012, 9 pages.	
	NPL49	Copy of Non-Final Office Action for U.S. Appl. No. 12/857,238, mailed November 29, 2012, 17 pages.	
	NPL50	Copy of Final Office Action for U.S. Appl. No. 09/969,987, mailed December 4, 2012, 7 pages.	
	NPL51	Copy of Final Office Action for U.S. Appl. No. 13/101,994, mailed December 13, 2012, 5 pages.	
	NPL52	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 12/703,042, mailed December 18, 2012, 6 pages.	

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	NPL53	Copy of Notice of Allowance for U.S. Appl. No. 12/690,125, mailed December 28, 2012, 5 pages.	
	NPL54	Copy of Non-Final Office Action for U.S. Appl. No. 11/553,419, mailed January 15, 2013, 4 pages.	
	NPL55	Copy of Non-Final Office Action for U.S. Appl. No. 13/482,800, mailed February 19, 2013, 15 pages.	
	NPL56	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed March 4, 2013, 9 pages.	
	NPL57	Copy of Non-Final Office Action for U.S. Appl. No. 12/690,125, mailed April 15, 2013, 11 pages.	
	NPL58	Copy of Notice of Allowance for U.S. Appl. No. 13/154,239, mailed April 24, 2013, 10 pages.	
	NPL59	Copy of Notice of Allowance for U.S. Appl. No. 11/553,427, mailed May 14, 2013, 6 pages.	
	NPL60	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 11/553,427, mailed May 15, 2013, 6 pages.	
	NPL61	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed June 18, 2012, 45 pages.	
	NPL62	Patent Owner's Response to Office Action of April 20, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed June 20, 2012, 11 pages.	

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	NPL63	Patent Owner's Response to Office Action of April 25, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, filed June 25, 2012, 20 pages.	
	NPL64	Patent Owner's Response to Office Action of April 25, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, filed June 25, 2012, 20 pages.	
	NPL65	Patent Owner's Response to Office Action of May 7, 2012 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed July 9, 2012, 19 pages.	
	NPL66	Patent Owner's Response to Office Action of May 17, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control. No. 95/001,924, filed July 17, 2012, 31 pages.	
	NPL67	New Decision on Appeal after Board Decision in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control. No. 95/001,517, mailed July 24, 2012, 24 pages.	
	NPL68	Right of Appeal Notice for Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed August 3, 2012, 7 pages.	
	NPL69	Notice of Intent to Issue Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/000,486, mailed August 30, 2012, 5 pages.	
	NPL70	Notice of Intent to Issue Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, mailed August 31, 2012, 6 pages.	
	NPL71	Decision on Petition for Supervisory Review of Refusal to Order Reexamination for Claims 1-2, 16-21, and 23 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed August 31, 2012, 10 pages.	
	NPL72	Decision on Petition Under 37 C.F.R. §§ 1.181 and 1.182 for Correction of Notice of Intent to Issue Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, mailed September 10, 2012, 6 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	07/17/2013
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**ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SKS./**

Substitute for form 1449/PTO			<b>Complete if Known</b>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>			Application Number	13/118,122
			Filing Date	May 27, 2011
			First Named Inventor	James J. FALLON
			Art Unit	2115
			Examiner Name	SURYAWANSHI, Suresh
			Attorney Docket Number	2855.004000B
Sheet	9	of	13	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL73	Decision on Petition for Supervisory Review of Refusal to Order Reexamination of Claims 5-7, 14-16, and 18-19 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed September 10, 2012, 12 pages.	
	NPL74	Decision on Petition for Supervisory Review of Refusal to Order Reexamination for Claims 86, 89, 90, 92-96, and 98 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed September 21, 2012, 10 pages.	
	NPL75	Non-Final Office Action in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed September 21, 2012, 15 pages.	
	NPL76	Patent Owner's Request to Reopen Prosecution Before the Examiner Under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed September 24, 2012, 29 pages.	
	NPL77	Examiner's Answer to Appeal Brief in Ex Parte Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed October 1, 2012, 17 pages.	
	NPL78	Inter Partes Reexam Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, issued October 4, 2012, 2 pages.	
	NPL79	Inter Partes Reexam Certificate in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/000,486, issued October 10, 2012, 2 pages.	
	NPL80	Examiner's Answer to Appeal Brief in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed October 15, 2012, 44 pages.	
	NPL81	Non-Final Office Action in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed October 18, 2012, 10 pages.	
	NPL82	Patent Owner's Rebuttal Brief Under 37 C.F.R. § 41.71 in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, filed November 15, 2012, 15 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	07/17/2013
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Sheet	10	of	13	Attorney Docket Number	2855.004000B

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	NPL83	Patent Owner's Response to Office Action of October 18, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed November 19, 2012, 30 pages.	
	NPL84	Patent Owner's Supplemental Amendment Subsequent to Timely Submission of Response to Office Action of October 18, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed November 27, 2012, 6 pages.	
	NPL85	Patent Owner's Response to Office Action of September 21, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, filed December 21, 2012, 51 pages.	
	NPL86	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed March 5, 2013, 23 pages.	
	NPL87	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed March 5, 2013, 29 pages.	
	NPL88	Examiner's Answer to Appeal Brief in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed March 14, 2013, 21 pages.	
	NPL89	Decision on Petition to Strike Patent Owner's Rebuttal Brief in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control no. 95/001,533, mailed March 15, 2013, 7 pages.	
	NPL90	Order Remanding Inter Partes Reexamination Under 37 C.F.R § 41.77(d) to the Examiner in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed March 18, 2013, 3 pages.	
	NPL91	Decision on Petition Under 37 C.F.R. § 1.183 to Request Examiner Enter Evidence in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed March 20, 2013, 7 pages.	
	NPL92	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed April 3, 2013, 24 pages.	

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				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	11	of	13	Attorney Docket Number	2855.004000B

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	NPL93	Patent Owner's Reply to Action Closing Prosecution of March 5, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, filed April 5, 2013, 19 pages.	
	NPL94	Patent Owner's Reply to Action Closing Prosecution of March 5, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, filed April 5, 2013, 23 pages.	
	NPL95	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed April 9, 2013, 59 pages.	
	NPL96	"Data Transfer Rate (DTR)," accessed at <a href="http://searchunifiedcommunications.techtarget.com/definition/data-transfer-rate">http://searchunifiedcommunications.techtarget.com/definition/data-transfer-rate</a> , published May 18, 2011, 1 page.	
	NPL97	"Bandwidth - technical definition," accessed at <a href="http://computer.yourdictionary.com/bandwidth">http://computer.yourdictionary.com/bandwidth</a> , accessed on March 7, 2013, 4 pages.	
	NPL98	"Bandwidth - Definition," accessed at <a href="http://www.yourdictionary.com/bandwidth">http://www.yourdictionary.com/bandwidth</a> , accessed on March 7, 2013, 2 pages.	
	NPL99	"Bandwidth," accessed at <a href="http://searchenterprise.wan.techtarget.com/definitions/bandwidth">http://searchenterprise.wan.techtarget.com/definitions/bandwidth</a> , published March 24, 2010, 1 page.	
	NPL100	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed April 9, 2013, 30 pages.	
	NPL101	Examiner's Determination Under 37 C.F.R. § 41.77(d) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed April 10, 2013, 7 pages.	
	NPL102	Patent Owner's Supplemental Response to Office Action of May 7, 2012 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed April 29, 2013, 20 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	07/17/2013
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Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	12	of	13	Attorney Docket Number	2855.004000B

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	NPL103	Patent Owner's Supplemental Response to Office Action of March 19, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed May 6, 2013, 24 pages.	
	NPL104	Patent Owner's Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed May 9, 2013, 13 pages.	
	NPL105	Patent Owner's Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, filed May 9, 2013, 29 pages.	
	NPL106	Patent Owner's Comments in Response to Examiner's Determination Under 37 C.F.R. § 41.77(e) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed May 10, 2013, 20 pages.	
	NPL107	Patent Owner's Supplemental Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed May 15, 2013, 13 pages.	
	NPL108	Right of Appeal Notice in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed May 31, 2013, 26 pages.	
	NPL109	Petition Under 37 C.F.R. § 1.181 to Expunge Third Party Requester's Improper Submission of Declarations Under 37 C.F.R. § 1.132 and Strike Comments Directed to Examiner's Determination in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed June 26, 2013, 6 pages.	
	NPL110	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed June 17, 2013, 6 pages.	
	NPL111	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 12/703,042, mailed June 18, 2013, 6 pages.	
	NPL112	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 11/553,427, mailed July 2, 2013, 2 pages.	

Examiner Signature	/Suresh Suryawanshi/	Date Considered	07/17/2013
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Substitute for form 1449/PTO				<b>Complete if Known</b>	
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				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	13	of	13	Attorney Docket Number	2855.004000B

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	NPL113	Copy of Non-Final Office Action for U.S. Appl. No. 09/969,987, mailed July 3, 2013, 8 pages.	
	NPL114	ChangeLog file for zlib, zlib.net/ChangeLog.txt file, accessed on May 23, 2013, with date references April 11, 1995 – April 28, 2013, 26 pages.	
	NPL115	2.0.39 Kernel Release History, accessed at lwn.net/2001/1018/a/hist-2.0.39.php3, dated October 14, 2001, 8 pages.	
	NPL116	"Linux Kernel," Wikipedia - the Free Encyclopedia, accessed at en.wikipedia.org/wiki/Linux_kernel, accessed on May 9, 2013, 20 pages.	
	NPL117	RUBINI, A., "Booting the Kernel," accessed at www.linux.it/~rubini/docs/boot/, June 1997, 6 pages.	
	NPL118	ZADOK, E., et al., "Fast Indexing: Support for Size-Changing Algorithms in Stackable File Systems," Proceedings of the 2001 Annual USENIX Technical Conference, June 2001, 16 pages.	
	NPL119	Court Docket History for 6:10-cv-00493-LED-JDL, Realtime Data, LLC D/B/A/ IXO, v. MetroPCS Texas, LLC et al., dated July 8, 2013, 77 pages.	
	NPL120	Court Docket History for 1:11-cv-06696-RJH, Realtime Data, LLC D/B/A/ IXO, v. Morgan Stanley et al., dated July 8, 2013, 80 pages.	
	NPL121	Court Docket History for 1:11-cv-06697-UA, Realtime Data, LLC D/B/A/IXO, v. CME Group Inc. et al., dated July 8, 2013, 105 pages.	
	NPL122	Court Docket History for 1:11-cv-06698-UA, Realtime Data, LLC d/b/a IXO v. Thomson Reuters et al., dated July 8, 2013, 59 pages.	

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		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
Sheet	1 of 1	Attorney Docket Number	2855.004000B

U.S. PATENT DOCUMENTS						
Examiner initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
	US1	5,475,388		12-12-1995	Gormish et al.	
	US2	5,987,432		11-16-1999	Zusman et al.	
	US3	6,909,745		06-21-2005	Puri et al.	
	US4	8,275,897		09-25-2012	Fallon	
	US5	2002/0169950 A1		11-14-2002	Esfahani et al.	
	US6	2009/0125698 A1		05-14-2009	Dye	
	US7	2012/0194362 A1		08-02-2012	Fallon et al.	
	US8	2012/0239921 A1		09-20-2012	Fallon	


FOREIGN PATENT DOCUMENTS							
Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

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Examiner Signature	/Suresh Suryawanshi/	Date Considered	07/17/2013
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/SKS./

<b>Search Notes</b>  	<b>Application/Control No.</b>  13118122	<b>Applicant(s)/Patent Under Reexamination</b>  FALLON ET AL.
	<b>Examiner</b>  SURESH SURYAWANSHI	<b>Art Unit</b>  2115

CPC- SEARCHED		
Symbol	Date	Examiner


CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
713	2	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS

SEARCH NOTES		
Search Notes	Date	Examiner
EAST; USPAT; US-PGPUB; EPO; JPO; IBM_TDB; NPL	5/11/12, 5/14/12	SKS
Search updated	12/26/12	SKS
Search updated	7/16/13	SKS

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
713	1	5/11/12, 5/14/12	SKS
711	113	5/11/12, 5/14/12	SKS
Search updated		12/26/12	SKS
Search updated		7/16/13	SKS

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<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013					
	1	✓	✓	=					
	2		✓	=					
	3		✓	=					
	4		✓	=					
	5		✓	-					
	6		✓	=					
	7		✓	=					
	8		✓	=					
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	29			=					
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	31			✓					
	32			✓					
	33			=					
	34			✓					
	35			✓					
	36			✓					

<b>Index of Claims</b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

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  T.D.
  R.1.47

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	51			=					
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	65			=					
	66			=					
	67			✓					
	68			✓					
	69			=					
	70			✓					
	71			✓					
	72			✓					

<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

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=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>


N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013					
	73			=					
	74			=					
	75			=					
	76			=					
	77			=					
	78			=					
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	80			=					
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	82			=					
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	85			✓					
	86			✓					
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	88			✓					
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	90			✓					
	91			=					
	92			=					
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	98			=					
	99			=					
	100			=					
	101			=					
	102			=					
	103			✓					
	104			✓					
	105			=					
	106			✓					
	107			✓					
	108			✓					



<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 13118122	<b>Applicant(s)/Patent Under Reexamination</b> FALLON ET AL.
	<b>Examiner</b> SURESH SURYAWANSHI	<b>Art Unit</b> 2115

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

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Claims renumbered in the same order as presented by applicant
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CLAIM		DATE							
Final	Original	05/14/2012	12/26/2012	07/17/2013					
	109			=					
	110			=					
	111			=					
	112			=					
	113			=					
	114			=					
	115			=					
	116			=					
	117			=					
	118			=					
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	121			✓					
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	124			✓					
	125			✓					
	126			✓					
	127			=					
	128			=					
	129			=					
	130			=					
	131			=					
	132			=					
	133			=					
	134			=					




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CONFIRMATION NO. 8978

<b>SERIAL NUMBER</b> 13/118,122	<b>FILING or 371(c) DATE</b> 05/27/2011 <b>RULE</b>	<b>CLASS</b> 713	<b>GROUP ART UNIT</b> 2115	<b>ATTORNEY DOCKET NO.</b> 2855.004000B	
<b>APPLICANTS</b> James J. Fallon, Armonk, NY; John Buck, Oceanside, NY; Paul F. Pickel, Bethpage, NY; Stephen J. McErlain, New York, NY;					
<b>** CONTINUING DATA *****</b> This application is a CON of 11/551,211 10/19/2006 PAT 8112619 which is a CON of 09/776,267 02/02/2001 PAT 7181608 which claims benefit of 60/180,114 02/03/2000 <span style="float: right;">Yes /SKS/</span>					
<b>** FOREIGN APPLICATIONS *****</b> None /SKS/					
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b> 06/10/2011					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input type="checkbox"/> No Verified and /SURESH SURYAWANSHI/ Acknowledged <u>Examiner's Signature</u>	<input type="checkbox"/> Met after Allowance Initials	<b>STATE OR COUNTRY</b> NY	<b>SHEETS DRAWINGS</b> 13	<b>TOTAL CLAIMS</b> 133 <sup>4-</sup>	<b>INDEPENDENT CLAIMS</b> 7 <sup>4-</sup>
<b>ADDRESS</b> STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 UNITED STATES			/SKS/ 7/17/13	/SKS/ 7/17/13	
<b>TITLE</b> Systems and Methods for Accelerated Loading of Operating Systems and Application Programs					
<b>FILING FEE RECEIVED</b> 11380	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

<b>Application Number</b> 	<b>Application/Control No.</b> 13/118,122	<b>Applicant(s)/Patent under Reexamination</b> FALLON ET AL.	

<b>Document Code - DISQ</b>	<b>Internal Document – DO NOT MAIL</b>
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<b>TERMINAL DISCLAIMER</b>	<input checked="" type="checkbox"/> <b>APPROVED</b>	<input type="checkbox"/> <b>DISAPPROVED</b>
Date Filed : 07-09-2013	<b>This patent is subject to a Terminal Disclaimer</b>	

**Approved/Disapproved by:**

Dorethea Lawrence

Substitute for form 1449/PTO			<b>Complete if Known</b>		
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>			Application Number	13/118,122	
			Filing Date	May 27, 2011	
			First Named Inventor	James J. FALLON	
			Art Unit	2115	
			Examiner Name	SURYAWANSHI, Suresh	
Sheet	1	of	13	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPL1	Defendants' Supplemental Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed May 17, 2012, 54 pages.	
	NPL2	Expert Report of Michael Brogioli Regarding Asserted Claims of U.S. Patent Nos. 7,417,568 and 7,777,651, with Exhibit A: List of Materials Reviewed, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 26 pages.	
	NPL3	Exhibit 1, Curriculum Vitae of Michael C. Brogioli, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 9 pages.	
	NPL4	Exhibit 2, [Proposed] Order Adopting the Parties' Agreed Claim Constructions, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 6 pages.	
	NPL5	Exhibit 3, The Parties' Disputed Claim Constructions, revised May 3, 2012, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 6 pages.	
	NPL6	Exhibit 4, E-Mail Correspondence between James Shalek and Brett Cooper, dated May 17 and 18, 2012, from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	
	NPL7	Exhibit 5, Source Code Chart for U.S. Pat. No. 7,417,568 comparing representative elements of the NQDSLIB source code (April 29, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	

Examiner Signature		Date Considered	
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			Art Unit	2115	
			Examiner Name	SURYAWANSHI, Suresh	
Sheet	2	of	13	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
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	NPL8	Exhibit 6, Source Code Chart for U.S. Pat. No. 7,417,568 comparing representative elements of the NQDSLIB source code (May 02, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 3 pages.	
	NPL9	Exhibit 7, Source Code Chart for U.S. Pat. No. 7,777,651 comparing representative elements of the NQDSLIB source code (April 29, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 21 pages.	
	NPL10	Exhibit 8, Source Code Chart for U.S. Pat. No. 7,777,651 comparing representative elements of the NQDSLIB source code (May 02, 2002 or earlier), from Expert Report, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 21 pages.	
	NPL11	Invalidity Expert Report of Dr. James A. Storer (Redacted), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 227 pages.	
	NPL12	Defendants' Claim Construction Tutorial, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 15, 2012, 54 pages.	
	NPL13	Opinion and Order (Markman), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 22, 2012, 41 pages.	
	NPL14	Opinion and Order (Partial Motion for Summary Judgment re Written Description: "Data Packets"), filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 26, 2012, 8 pages.	

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		Art Unit	2115
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Sheet	3 of 13	Attorney Docket Number	2855.004000B

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	NPL15	Opinion and Order (Partial Motion for Summary Judgment re Data Decompression) filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 27, 2012, 21 pages.	
	NPL16	Technology Tutorial (.exe file), presentation filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed June 2012 (submitted on accompanying CD-ROM).	
	NPL17	Lilley, J., et al., "A Unified Header Compression Framework for Low-Bandwidth Links," MobiCom 2000, August 6-11, 2000. Boston, MA, 12 pages.	
	NPL18	"WAN Link Compression on HP Routers," Hewlett Packard Application Note, May 1995, 7 pages.	
	NPL19	"User Manual for XMill," 2001, 21 pages.	
	NPL20	"High Speed Network, Developer's Guide," Standard & Poor's Comstock, Version 1.1, 1994, pages 1-42, and 53-124.	
	NPL21	Larmouth, J., "ASN.1 Complete", Academic Press, 2000, pages xxi-xxvii, 1-45, 115-130, 168-172, 174, 270-276, and 443-472.	
	NPL22	Petty, J., "PPP Hewlett-Packard Packet-by-Packet Compression (HP PPC) Protocol," draft-ietf-ppext-hpppc-00.txt., October 1993, 7 pages.	
	NPL23	Friend, R., et al., "IP Payload Compression Using LZS," Network Working Group, Request for Comments: 2395, Category: Informational, December 1998; 9 pages.	

Examiner Signature	Date Considered
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	NPL24	"Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation," Series X: Data Networks and Open System Communications, OSI networking and system aspects - Abstract Syntax Notation One (ASN.1), International Telecommunication Union, ITU-T Recommendation X.680, December 1997, 109 pages.	
	NPL25	"Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER), Series X: Data Networks and Open System Communications, OSI networking and system aspects - Abstract Syntax Notation One (ASN.1), International Telecommunication Union, ITU-T Recommendation X.691, December 1997, 51 pages.	
	NPL26	Opinion and Order, filed in Realtime Data, LLC d/b/a IXO v. Morgan Stanley, et al., Civil Action No. 1:11-cv-6696, Realtime Data, LLC d/b/a IXO v. CME Group Inc., et al., Civil Action No. 1:11-cv-6697, and Realtime Data, LLC d/b/a IXO v. Thomson Reuters, et al., Civil Action No. 1:11-cv-6698, United States District Court Southern District of New York, filed September 24, 2012, 48 pages.	
	NPL27	Memorandum Opinion and Order, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed October 1, 2012, 22 pages.	
	NPL28	T-Mobile's Motion for Leave to Supplement Trial Witness List & Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 16 pages.	
	NPL29	Exhibit 2, Defendant T-Mobile's Supplemental Invalidity Contentions, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 13 pages.	
	NPL30	Exhibit 3, FNLTD-74478, Flash Networks: Commercial Part Written by Flash Networks for Cegetel, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 6 pages.	
	NPL31	Exhibit 4, FNLTD-74444, Response to Cegetel RFP: Technical Section, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 5 pages.	
	NPL32	Exhibit 5, FNLTD-74926, Flash Networks Optimization Products Selected by AT&T Wireless, Flash Networks, Inc. Press Release, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 3 pages.	

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	NPL33	Exhibit 6, Flash Networks: Harmony, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 6 pages.	
	NPL34	Exhibit 7, Declaration of Adi Weiser, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL35	Exhibit 8, Declaration of Yoav Weiss, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL36	Exhibit 9, Declaration of Richard Luthi, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL37	Exhibit 13, Declaration of Gali Weiss, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 4 pages.	
	NPL38	Exhibit 17, P.R. 3-1 Claim Chart for T-Mobile, U.S. Patent No. 7,161,506, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed December 17, 2012, 33 pages.	
	NPL39	"Flash Networks Introduces NettGain 1100, New Products for Carriers & Enterprises that Enables Immediate Deployment of Wireless Data Solutions," Press Release, dated March 20, 2001, 2 pages.	
	NPL40	Amended Expert Report of Dr. Cliff Reader, filed in Realtime Data, LLC d/b/a IXO, v. MetroPCS Texas, LLC, et al., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed July 30, 2012, 205 pages.	
	NPL41	Final Judgment, filed in Realtime Data, LLC, d/b/a IXO, v. T-Mobile USA, Inc., Civil Action No. 6:10-cv-00493, United States District Court for the Eastern District of Texas, filed March 28, 2013, 1 page.	
	NPL42	Copy of Notice of Allowance for U.S. Appl. No. 11/400,008, mailed June 21, 2012, 8 pages.	

Examiner Signature		Date Considered	
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		Examiner Name	SURYAWANSHI, Suresh
Sheet	6 of 13	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL43	Copy of Final Office Action for U.S. Appl. No. 13/154,239, mailed June 26, 2012, 14 pages.	
	NPL44	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed July 12, 2012, 5 pages.	
	NPL45	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed July 16, 2012, 8 pages.	
	NPL46	Copy of Non-Final Office Action for U.S. Appl. No. 13/482,800, mailed July 20, 2012, 14 pages.	
	NPL47	Copy of Notice of Allowance for U.S. Appl. No. 11/553,427, mailed November 6, 2012, 5 pages.	
	NPL48	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed November 15, 2012, 9 pages.	
	NPL49	Copy of Non-Final Office Action for U.S. Appl. No. 12/857,238, mailed November 29, 2012, 17 pages.	
	NPL50	Copy of Final Office Action for U.S. Appl. No. 09/969,987, mailed December 4, 2012, 7 pages.	
	NPL51	Copy of Final Office Action for U.S. Appl. No. 13/101,994, mailed December 13, 2012, 5 pages.	
	NPL52	Copy of Supplemental Notice of Allowability for U.S. Appl. No. 12/703,042, mailed December 18, 2012, 6 pages.	

Examiner Signature		Date Considered	
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Substitute for form 1449/PTO			<i>Complete if Known</i>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>			Application Number	13/118,122
			Filing Date	May 27, 2011
			First Named Inventor	James J. FALLON
			Art Unit	2115
			Examiner Name	SURYAWANSHI, Suresh
			Attorney Docket Number	2855.004000B
Sheet	7	of	13	

NON PATENT LITERATURE DOCUMENTS			
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	NPL53	Copy of Notice of Allowance for U.S. Appl. No. 12/690,125, mailed December 28, 2012, 5 pages.	
	NPL54	Copy of Non-Final Office Action for U.S. Appl. No. 11/553,419, mailed January 15, 2013, 4 pages.	
	NPL55	Copy of Non-Final Office Action for U.S. Appl. No. 13/482,800, mailed February 19, 2013, 15 pages.	
	NPL56	Copy of Notice of Allowance for U.S. Appl. No. 12/703,042, mailed March 4, 2013, 9 pages.	
	NPL57	Copy of Non-Final Office Action for U.S. Appl. No. 12/690,125, mailed April 15, 2013, 11 pages.	
	NPL58	Copy of Notice of Allowance for U.S. Appl. No. 13/154,239, mailed April 24, 2013, 10 pages.	
	NPL59	Copy of Notice of Allowance for U.S. Appl. No. 11/553,427, mailed May 14, 2013, 6 pages.	
	NPL60	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 11/553,427, mailed May 15, 2013, 6 pages.	
	NPL61	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed June 18, 2012, 45 pages.	
	NPL62	Patent Owner's Response to Office Action of April 20, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed June 20, 2012, 11 pages.	

Examiner Signature		Date Considered	
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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	8 of 13		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL63	Patent Owner's Response to Office Action of April 25, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, filed June 25, 2012, 20 pages.	
	NPL64	Patent Owner's Response to Office Action of April 25, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, filed June 25, 2012, 20 pages.	
	NPL65	Patent Owner's Response to Office Action of May 7, 2012 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed July 9, 2012, 19 pages.	
	NPL66	Patent Owner's Response to Office Action of May 17, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control. No. 95/001,924, filed July 17, 2012, 31 pages.	
	NPL67	New Decision on Appeal after Board Decision in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control. No. 95/001,517, mailed July 24, 2012, 24 pages.	
	NPL68	Right of Appeal Notice for Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed August 3, 2012, 7 pages.	
	NPL69	Notice of Intent to Issue Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/000,486, mailed August 30, 2012, 5 pages.	
	NPL70	Notice of Intent to Issue Inter Partes Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, mailed August 31, 2012, 6 pages.	
	NPL71	Decision on Petition for Supervisory Review of Refusal to Order Reexamination for Claims 1-2, 16-21, and 23 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed August 31, 2012, 10 pages.	
	NPL72	Decision on Petition Under 37 C.F.R. §§ 1.181 and 1.182 for Correction of Notice of Intent to Issue Reexamination Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, mailed September 10, 2012, 6 pages.	

Examiner Signature	Date Considered
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	13/118,122
		Filing Date	May 27, 2011
		First Named Inventor	James J. FALLON
		Art Unit	2115
		Examiner Name	SURYAWANSHI, Suresh
		Attorney Docket Number	2855.004000B
Sheet	9 of 13		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL73	Decision on Petition for Supervisory Review of Refusal to Order Reexamination of Claims 5-7, 14-16, and 18-19 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed September 10, 2012, 12 pages.	
	NPL74	Decision on Petition for Supervisory Review of Refusal to Order Reexamination for Claims 86, 89, 90, 92-96, and 98 (37 CFR §§ 1.927 and 1.181) in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed September 21, 2012, 10 pages.	
	NPL75	Non-Final Office Action in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed September 21, 2012, 15 pages.	
	NPL76	Patent Owner's Request to Reopen Prosecution Before the Examiner Under 37 C.F.R. § 41.77(b) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed September 24, 2012, 29 pages.	
	NPL77	Examiner's Answer to Appeal Brief in Ex Parte Reexamination of U.S. Patent No. 7,400,274, Control No. 95/001,544, mailed October 1, 2012, 17 pages.	
	NPL78	Inter Partes Reexam Certificate in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/000,478, issued October 4, 2012, 2 pages.	
	NPL79	Inter Partes Reexam Certificate in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/000,486, issued October 10, 2012, 2 pages.	
	NPL80	Examiner's Answer to Appeal Brief in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed October 15, 2012, 44 pages.	
	NPL81	Non-Final Office Action in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed October 18, 2012, 10 pages.	
	NPL82	Patent Owner's Rebuttal Brief Under 37 C.F.R. § 41.71 in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, filed November 15, 2012, 15 pages.	

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Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	10	of	13	Attorney Docket Number	2855.004000B

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL83	Patent Owner's Response to Office Action of October 18, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed November 19, 2012, 30 pages.	
	NPL84	Patent Owner's Supplemental Amendment Subsequent to Timely Submission of Response to Office Action of October 18, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed November 27, 2012, 6 pages.	
	NPL85	Patent Owner's Response to Office Action of September 21, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, filed December 21, 2012, 51 pages.	
	NPL86	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, mailed March 5, 2013, 23 pages.	
	NPL87	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, mailed March 5, 2013, 29 pages.	
	NPL88	Examiner's Answer to Appeal Brief in Inter Partes Reexamination of U.S. Patent No. 7,777,651, Control No. 95/001,581, mailed March 14, 2013, 21 pages.	
	NPL89	Decision on Petition to Strike Patent Owner's Rebuttal Brief in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control no. 95/001,533, mailed March 15, 2013, 7 pages.	
	NPL90	Order Remanding Inter Partes Reexamination Under 37 C.F.R § 41.77(d) to the Examiner in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed March 18, 2013, 3 pages.	
	NPL91	Decision on Petition Under 37 C.F.R. § 1.183 to Request Examiner Enter Evidence in Inter Partes Reexamination of U.S. Patent No. 7,417,568, Control No. 95/001,533, mailed March 20, 2013, 7 pages.	
	NPL92	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed April 3, 2013, 24 pages.	

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<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	13/118,122
				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	11	of	13	Attorney Docket Number	2855.004000B

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	NPL93	Patent Owner's Reply to Action Closing Prosecution of March 5, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,161,506, Control No. 95/001,926, filed April 5, 2013, 19 pages.	
	NPL94	Patent Owner's Reply to Action Closing Prosecution of March 5, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,378,992, Control No. 95/001,928, filed April 5, 2013, 23 pages.	
	NPL95	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, mailed April 9, 2013, 59 pages.	
	NPL96	"Data Transfer Rate (DTR)," accessed at <a href="http://searchunifiedcommunications.techtarget.com/definition/data-transfer-rate">http://searchunifiedcommunications.techtarget.com/definition/data-transfer-rate</a> , published May 18, 2011, 1 page.	
	NPL97	"Bandwidth - technical definition," accessed at <a href="http://computer.yourdictionary.com/bandwidth">http://computer.yourdictionary.com/bandwidth</a> , accessed on March 7, 2013, 4 pages.	
	NPL98	"Bandwidth - Definition," accessed at <a href="http://www.yourdictionary.com/bandwidth">http://www.yourdictionary.com/bandwidth</a> , accessed on March 7, 2013, 2 pages.	
	NPL99	"Bandwidth," accessed at <a href="http://searchenterprise.wan.techtarget.com/definitions/bandwidth">http://searchenterprise.wan.techtarget.com/definitions/bandwidth</a> , published March 24, 2010, 1 page.	
	NPL100	Action Closing Prosecution in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, mailed April 9, 2013, 30 pages.	
	NPL101	Examiner's Determination Under 37 C.F.R. § 41.77(d) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, mailed April 10, 2013, 7 pages.	
	NPL102	Patent Owner's Supplemental Response to Office Action of May 7, 2012 in Inter Partes Reexamination of U.S. Patent No. 6,604,158, Control No. 95/001,923, filed April 29, 2013, 20 pages.	

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				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	12	of	13	Attorney Docket Number	2855.004000B

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	NPL103	Patent Owner's Supplemental Response to Office Action of March 19, 2012 in Inter Partes Reexamination of U.S. Patent No. 7,395,345, Control No. 95/001,925, filed May 6, 2013, 24 pages.	
	NPL104	Patent Owner's Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed May 9, 2013, 13 pages.	
	NPL105	Patent Owner's Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,352,300, Control No. 95/001,924, filed May 9, 2013, 29 pages.	
	NPL106	Patent Owner's Comments in Response to Examiner's Determination Under 37 C.F.R. § 41.77(e) in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed May 10, 2013, 20 pages.	
	NPL107	Patent Owner's Supplemental Response to Action Closing Prosecution of April 9, 2013 in Inter Partes Reexamination of U.S. Patent No. 7,321,937, Control No. 95/001,922, filed May 15, 2013, 13 pages.	
	NPL108	Right of Appeal Notice in Inter Partes Reexamination of U.S. Patent No. 7,415,530, Control No. 95/001,927, mailed May 31, 2013, 26 pages.	
	NPL109	Petition Under 37 C.F.R. § 1.181 to Expunge Third Party Requester's Improper Submission of Declarations Under 37 C.F.R. § 1.132 and Strike Comments Directed to Examiner's Determination in Inter Partes Reexamination of U.S. Patent No. 7,714,747, Control No. 95/001,517, filed June 26, 2013, 6 pages.	
	NPL110	Copy of Notice of Allowance for U.S. Appl. No. 12/857,238, mailed June 17, 2013, 6 pages.	
	NPL111	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 12/703,042, mailed June 18, 2013, 6 pages.	
	NPL112	Copy of Supplemental Notice of Allowance for U.S. Appl. No. 11/553,427, mailed July 2, 2013, 2 pages.	

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				Filing Date	May 27, 2011
				First Named Inventor	James J. FALLON
				Art Unit	2115
				Examiner Name	SURYAWANSHI, Suresh
Sheet	13	of	13	Attorney Docket Number	2855.004000B

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	NPL113	Copy of Non-Final Office Action for U.S. Appl. No. 09/969,987, mailed July 3, 2013, 8 pages.	
	NPL114	ChangeLog file for zlib, zlib.net/ChangeLog.txt file, accessed on May 23, 2013, with date references April 11, 1995 – April 28, 2013, 26 pages.	
	NPL115	2.0.39 Kernel Release History, accessed at lwn.net/2001/1018/a/hist-2.0.39.php3, dated October 14, 2001, 8 pages.	
	NPL116	"Linux Kernel," Wikipedia - the Free Encyclopedia, accessed at en.wikipedia.org/wiki/Linux_kernel, accessed on May 9, 2013, 20 pages.	
	NPL117	RUBINI, A., "Booting the Kernel," accessed at www.linux.it/~rubini/docs/boot/, June 1997, 6 pages.	
	NPL118	ZADOK, E., et al., "Fast Indexing: Support for Size-Changing Algorithms in Stackable File Systems," Proceedings of the 2001 Annual USENIX Technical Conference, June 2001, 16 pages.	
	NPL119	Court Docket History for 6:10-cv-00493-LED-JDL, Realtime Data, LLC D/B/A/ IXO, v. MetroPCS Texas, LLC et al., dated July 8, 2013, 77 pages.	
	NPL120	Court Docket History for 1:11-cv-06696-RJH, Realtime Data, LLC D/B/A/ IXO, v. Morgan Stanley et al., dated July 8, 2013, 80 pages.	
	NPL121	Court Docket History for 1:11-cv-06697-UA, Realtime Data, LLC D/B/A/IXO, v. CME Group Inc. et al., dated July 8, 2013, 105 pages.	
	NPL122	Court Docket History for 1:11-cv-06698-UA, Realtime Data, LLC d/b/a IXO v. Thomson Reuters et al., dated July 8, 2013, 59 pages.	

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Examiner Signature		Date Considered	
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13118122			
<b>Filing Date:</b>	27-May-2011			
<b>Title of Invention:</b>	Systems and Methods for Accelerated Loading of Operating Systems and Application Programs			
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon			
<b>Filer:</b>	Michael V. Messinger/Amy Norris			
<b>Attorney Docket Number:</b>	2855.004000B			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in Excess of 20	1202	114	80	9120
Independent claims in excess of 3	1201	1	420	420
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
Extension - 3 months with \$0 paid	1253	1	1400	1400
<b>Miscellaneous:</b>				
Request for Continued Examination	1801	1	1200	1200
Statutory or Terminal Disclaimer	1814	1	160	160
<b>Total in USD (\$)</b>				<b>12300</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	16267160
<b>Application Number:</b>	13118122
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8978
<b>Title of Invention:</b>	Systems and Methods for Accelerated Loading of Operating Systems and Application Programs
<b>First Named Inventor/Applicant Name:</b>	James J. Fallon
<b>Customer Number:</b>	26111
<b>Filer:</b>	Michael V. Messinger/Amy Norris
<b>Filer Authorized By:</b>	Michael V. Messinger
<b>Attorney Docket Number:</b>	2855.004000B
<b>Receipt Date:</b>	09-JUL-2013
<b>Filing Date:</b>	27-MAY-2011
<b>Time Stamp:</b>	17:00:35
<b>Application Type:</b>	Utility under 35 USC 111(a)

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RAM confirmation Number	4209
Deposit Account	
Authorized User	

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		2855004000B_Filing.pdf	7939641	yes	62
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<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Transmittal Letter	1	2	
		Extension of Time	3	3	
		Request for Continued Examination (RCE)	4	4	
		Terminal Disclaimer Filed	5	5	
		Preliminary Amendment	6	6	
		Claims	7	30	
		Applicant Arguments/Remarks Made in an Amendment	31	38	
		Transmittal Letter	39	48	
		Information Disclosure Statement (IDS) Form (SB08)	49	49	
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<b>Warnings:</b>					
<b>Information:</b>					
2	Fee Worksheet (SB06)	fee-info.pdf	36688	no	2
			61210bb4ba946e72ca8c5c6c1e83b379019db57b		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			7976329		

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

MICHAEL V. MESSINGER  
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July 9, 2013

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Confirmation No. 8978  
Art Unit 2115  
Attn: Mail Stop RCE

Re: U.S. Utility Patent Application  
Application No. 13/118,122; Filing Date: May 27, 2011  
For: **Systems and Methods for Accelerated Loading of Operating Systems  
and Application Programs**  
Inventors: FALLON *et al.*  
Our Ref: 2855.004000B

Commissioner:

Transmitted herewith for appropriate action are the following documents:

1. Online Credit Card Payment Authorization in the amount of **\$12,300.00** to cover:
  - \$1,400.00** Three-Month Extension of Time Fee;
  - \$1,200.00** Request for Continued Examination Fee;
  - \$ 160.00** Terminal Disclaimer Fee;
  - \$9,120.00** Excess Claims Fee;
  - \$ 420.00** Independent Excess Claim Fee;
2. Petition for Extension of Time Under 37 C.F.R. § 1.136(a) Form (PTO/SB/22);
3. Request for Continued Examination (RCE) under 37 C.F.R. § 1.114(c);
4. Terminal Disclaimer To Obviate A Double Patenting Rejection Over "Prior" Patents;
5. Submission Under 37 C.F.R. § 1.114(c) and Preliminary Amendment Under 37 C.F.R. § 1.115;
6. Third Supplemental Information Disclosure Statement;
7. Form PTO/SB/08a (1 sheet) listing (8) documents (**US1-US8**);
8. Form PTO/SB/08b (13 sheets) listing (122) documents (**NPL1-NPL122**);
9. Electronic copies of cited documents (**NPL1-NPL15** and **NPL17-NPL122**);
10. CD-Rom with cited document **NPL16** (submitted via hand-carry); and

Commissioner for Patents  
July 9, 2013  
Page 2

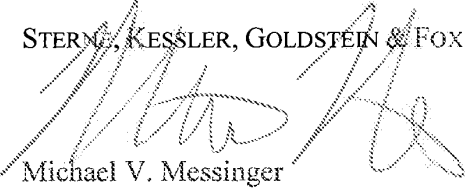
11. Return Postcard (submitted via hand-carry).

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael V. Messinger  
Attorney for Applicants  
Registration No. 37,575

MVM/S-B/srb  
Enclosures

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b>	Docket Number (Optional) <b>2855.004000B</b>
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Application Number <b>13/118,122</b>	Filed <b>May 27, 2011</b>
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For **Systems and Methods for Accelerated Loading of Operating Systems and Application Programs**

Art Unit <b>2115</b>	Examiner <b>SURYAWANSHI, Suresh</b>
-------------------------	--

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.  
 The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

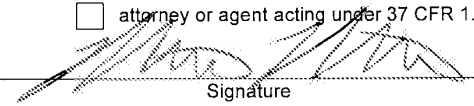
	Fee	Small Entity Fee	Micro Entity Fee	
<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$200	\$100	\$50	\$ _____
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$600	\$300	\$150	\$ _____
<input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1,400	\$700	\$350	\$ <u>1,400.00</u>
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$2,200	\$1,100	\$550	\$ _____
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$3,000	\$1,500	\$750	\$ _____

- Applicant asserts small entity status. See 37 CFR 1.27.
- Applicant certifies micro entity status. See 37 CFR 1.29.  
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.
- A check in the amount of the fee is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director has already been authorized to charge fees in this application to a Deposit Account.
- The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to  
Deposit Account Number 19-0036
- Payment made via EFS-Web.

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

I am the

- applicant/inventor.
- assignee of record of the entire interest. See 37 CFR 3.71. 37 CFR 3.73(b) statement is enclosed (Form PTO/SB/96).
- attorney or agent of record. Registration number 37,575
- attorney or agent acting under 37 CFR 1.34. Registration number \_\_\_\_\_

 _____ Signature	<u>July 9, 2013</u> _____ Date
<u>Michael V. Messinger</u> _____ Typed or printed name	<u>(202) 371-2600</u> _____ Telephone Number

**NOTE:** This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below\*.

\* Total of one forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.  
 If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.





**TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER "PRIOR" PATENTS**

Docket Number (Optional)  
2855.004000B

In re Application of: FALLON et al.

Application No.: 13/118,122

Filed: May 27, 2011

For: SYSTEMS AND METHODS FOR ACCELERATED LOADING OF OPERATING SYSTEMS AND APPLICATION PROGRAMS

The owner\*, Realtime Data LLC, of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory terms of **prior patent** Nos. 7,181,608, 8,090,936, and 8,112,619 as the terms of said **prior patents** are defined in 35 U.S.C. 154 and 173, and as the terms of said **prior patents** are presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patents** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory terms as defined in 35 U.S.C. 154 and 173 of the **prior patents**, "as the terms of said **prior patents** are presently shortened by any terminal disclaimer," in the event that said **prior patents** later:

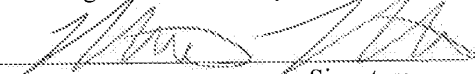
- expire for failure to pay a maintenance fee;
- are held unenforceable;
- are found invalid by a court of competent jurisdiction;
- are statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- have all claims canceled by a reexamination certificate;
- are reissued; or
- are in any manner terminated prior to the expiration of their full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1.  For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2.  The undersigned is an attorney or agent of record. Reg. No. 37,575.

 \_\_\_\_\_  
Signature Date

Michael V. Messinger  
Typed or printed name

(202) 772-8667  
Telephone Number

- Terminal disclaimer fee under 37 CFR 1.20(d) included.

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FALLON, James J. *et al*

Appl. No.: 13/118,122

Filed: May 27, 2011

For: **Systems And Methods For  
Accelerated Loading Of Operating  
Systems And Application Programs**

Confirmation No.: 8978

Art Unit: 2115

Examiner: SURYAWANSHI, Suresh

Atty. Docket: 2855.004000B

**Submission Under 37 C.F.R. § 1.114(c) and  
Preliminary Amendment Under 37 C.F.R. § 1.115**

*Mail Stop RCE*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Commissioner:

Filed concurrently herewith in the captioned application is a Request for Continued Examination (RCE). Prior to examination of the RCE on the merits, Applicants respectfully request that this Application be further amended as directed herein. Applicants submit the following Remarks in reply to the Office Action dated January 9, 2013 ("Final Action").

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

***Amendments to the Claims***

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a list of boot data ~~used~~ for booting ~~[[a]]~~ the computer system,

wherein at least a portion of boot data is associated with the list of boot data;

~~preloading~~ loading the at least a portion of boot data into a memory ~~upon~~ initialization of the computer system;

accessing the loaded at least a portion of boot data in a compressed form from the memory; and

decompressing, on a just-in-time basis, the at least a portion of boot data in compressed form ~~accessed~~ from the memory at a rate that decreases boot time relative to loading the operating system in an uncompressed form ~~increases the effective access rate of the memory~~ ~~[[;]]~~, and

~~utilizing the decompressed~~ wherein the at least a portion of decompressed boot data ~~in loading~~ is a portion of the operating system for the computer system.

2. (Currently Amended) The method of claim 1, further comprising:

~~updating the list of boot data by~~ associating additional boot data with the list of boot data ~~list~~ ~~[[;]]~~

compressing the boot data preloaded into the memory with a data compression engine; and

compressing the additional boot data with ~~a random access~~ an encoder coupled to the data compression engine.

3. (Currently Amended) The method of claim 1, further comprising:

updating the list of boot data list ~~by removing an association of additional boot data from the list of boot data.~~

4. (Currently Amended) The method of claim 1, further comprising:

~~updating the list of boot data by~~ associating additional boot data with the list of boot data list; and

compressing at least a portion of the additional boot data with a data compression encoder.

5. (Cancelled)

6. (Currently Amended) A method, comprising:

maintaining a list of compressed boot data ~~used~~ for booting a computer system;

storing ~~the~~ compressed boot data associated with the list of compressed boot data on a boot device non-volatile memory;

~~initializing a central processing unit of the computer system;~~

loading the compressed boot data from the ~~boot device~~ non-volatile memory to a second memory;  
accessing the compressed boot data from the second memory; ~~and~~  
decompressing the compressed boot data to provide decompressed boot data; ~~and~~  
utilizing the decompressed boot data to boot the computer system, ~~wherein at least a portion of the boot data is accessed in compressed form~~  
wherein the accessing and the decompressing occur within a period of time which is less than a time to access the boot data from the non-volatile memory in an uncompressed form.

7. (Currently Amended) A system comprising:

a processor;

a memory; and

a non-volatile memory device configured to store [[:]] boot data in compressed form for booting the system ~~stored in compressed form in the non-volatile memory [[:]]~~ and logic code associated with the processor, the logic code ~~stored in the non-volatile memory and comprising~~ including instructions executable by the processor for maintaining a list of boot data used for booting the system, [[:]] and

wherein the processor is configured to load at least a portion of the compressed boot data in compressed form being preloaded into the memory, and to access the at least a portion of the boot data in compressed form and to decompress the at least a portion of the boot data in compressed form at a rate that decreases boot time relative to booting the system with uncompressed boot data being accessed and utilized to boot the system.

8. (Currently Amended) The system of claim 7, further comprising:
- a data compression engine, coupled to the non-volatile memory, configured to compress ~~the~~ boot data; and
  - ~~a random access encoder~~ data compression encoder, coupled to the data compression engine, configured to compress additional boot data.
9. (Currently Amended) A method of ~~preloading~~ loading an operating system for booting a computer system, comprising:
- storing substantially all of the operating system in compressed form on a ~~boot device~~ non-volatile memory;
  - loading a first portion of the ~~compressed~~ operating system in compressed form from the ~~boot device non-volatile memory~~ to a second memory;
  - accessing the first portion from the second memory in compressed form;
  - decompressing the first portion to provide a decompressed first portion of the operating system;
  - utilizing the decompressed first portion to partially boot the computer system;
  - ~~responsive to a request, locating a second portion of the compressed operating system using a boot data list and preloading~~ loading the a second portion of the operating system in compressed form from the ~~boot device non-volatile memory~~ to the second memory;
  - accessing the second portion from the memory in compressed form; ~~and~~

decompressing the second portion to provide a decompressed second portion of the operating system; and

utilizing the decompressed second portion to further partially boot the computer system,

wherein the first and second portions are accessed and decompressed at a rate that is faster than accessing the first and second portions from the non-volatile memory in uncompressed form.

10. (Currently Amended) The method of claim 9, further comprising:

compressing additional boot data; and

storing the additional compressed boot data in the ~~boot device~~ non-volatile memory.

11. (Currently Amended) The method of claim 10, further comprising:

compressing the additional boot data with a ~~random-access~~ data compression encoder.

12. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

~~maintaining a boot data list;~~

loading boot data in compressed form associated with ~~the a~~ a boot data list in compressed form from a non-volatile boot device into a memory upon initialization of the computer system;



accessing the ~~compressed~~ boot data in compressed form from the memory;  
decompressing ~~as needed~~ the ~~compressed~~ boot data in compressed form accessed from the memory at a rate that ~~increases the effective access rate of the memory~~ decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form; and  
utilizing the decompressed boot data ~~in loading to load~~ the operating system for the computer system.

13. (Previously Presented) The method of claim 12, further comprising:  
compressing additional boot data with a random access encoder.

14. (Currently Amended) A method for providing accelerated loading of an operating system in a computer system, comprising:

maintaining a boot data list;  
loading boot data associated with the boot data list from a non-volatile boot device into a memory in compressed form upon initialization of the computer system;  
accessing the compressed boot data from the memory;  
decompressing, on a just-in-time basis, the compressed boot data accessed from the memory at a rate that decreases a time to load the operating system relative to loading the operating system with the boot data in uncompressed form ~~increases the effective access rate of the memory~~; and  
~~utilizing the decompressed boot data in loading the operating system for the~~ computer system.

15. (New) A method for providing accelerated loading of an operating system in a computer system, comprising:

accessing boot data for booting the computer system, wherein at least a portion of the boot data is in compressed form;

loading the boot data into a memory;

servicing requests for boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing compressed boot data and decompressing the compressed boot data at a rate that decreases an overall boot time relative to loading the operating system in uncompressed form.

16. (New) The method of claim 15, wherein the boot data comprises program code associated with the operating system.

17. (New) The method of claim 15, wherein the operating system comprises multiple files.

18. (New) The method of claim 15, wherein the boot data comprises program code associated with one or more application programs of the computer system.

19. (New) The method of claim 15, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

20. (New) The method of claim 18, wherein the one or more application programs comprises multiple files.

21. (New) The method of claim 15, further comprising:  
updating the boot data.

22. (New) The method of claim 15, further comprising:  
updating a list of the boot data.

23. (New) The method of claim 22, wherein the updating comprises:  
adding to the list any boot data requested by the computer system not previously stored in the list.

24. (New) The method of claim 22, wherein the updating comprises:  
removing from the list any boot data previously stored in the list and not requested by the computer system.

25. (New) The method of claim 15, further comprising:  
maintaining a boot data list.

26. (New) The method of claim 15, wherein the boot data is accessed from a non-volatile memory device.

27. (New) The method of claim 1, wherein the at least a portion of the boot data in compressed form represents a plurality of files.

28. (New) The method of claim 1, wherein the at least a portion of the boot data in compressed form comprises program code associated with the operating system.

29. (New) The method of claim 1, further comprising:  
compressing the at least a portion of the boot data with one or more advanced compression encoders to provide the at least a portion of the boot data in compressed form.

30. (New) The method of claim 1, wherein the decompressing comprises:  
decompressing the at least a portion of the boot data in compressed form utilizing one or more advanced decompression decoders.

31. (New) The method of claim 1, wherein the loading comprises:  
loading the at least a portion of the boot data in compressed form into a contiguous portion of the memory, and further comprising:  
decompressing the at least a portion of the boot data in compressed form into a different portion of the memory than the contiguous portion.

32. (New) The method of claim 1, wherein the memory is virtual.

33. (New) The method of claim 1, wherein the memory is physical.
34. (New) The method of claim 1, wherein the compressed boot data is larger than 512 kilobytes.
35. (New) The method of claim 1, wherein the at least a portion of the boot data in compressed form is larger than 640 kilobytes.
36. (New) The method of claim 1, wherein the compression ratio of the at least a portion of the boot data in compressed form is greater than 2.5:1.
37. (New) The method of claim 1, wherein the operating system comprises multiple files.
38. (New) The method of claim 1, wherein the boot data includes program code associated with one or more application programs of the computer system.
39. (New) The method of claim 1, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.
40. (New) The method of claim 38, wherein the one or more application programs are comprised of multiple files.

41. (New) The method of claim 1, wherein the accessing comprises:  
accessing the at least a portion of the boot data in compressed form via direct  
memory access.

42. (New) The method of claim 1, wherein Huffman encoding is utilized to  
encode the at least a portion of the boot data in compressed form.

43. (New) The method of claim 1, wherein Lempel-Ziv encoding is utilized to  
encode the at least a portion of the boot data in compressed form.

44. (New) The method of claim 1, wherein a plurality of encoders are utilized to  
encode the at least a portion of the boot data in compressed form.

45. (New) The method of claim 6, wherein the compressed boot data represents  
a plurality of files.

46. (New) The method of claim 6, wherein the compressed boot data comprises  
program code associated with an operating system.

47. (New) The method of claim 6, further comprising:  
compressing the boot data with one or more advanced compression encoders to  
provide the compressed boot data.

48. (New) The method of claim 6, wherein the decompressing comprises:  
decompressing the compressed boot data with one or more advanced  
decompression decoders.

49. (New) The method of claim 6, wherein the loading comprises:  
loading the compressed boot data to a contiguous portion of the second memory,  
and wherein the decompressing comprises:  
decompressing the compressed boot data to a different portion of the second  
memory than the contiguous portion.

50. (New) The method of claim 6, wherein the second memory is virtual.

51. (New) The method of claim 6, wherein the second memory is physical.

52. (New) The method of claim 6, wherein the compressed boot data is larger  
than 512 kilobytes.

53. (New) The method of claim 6, wherein the compressed boot data is larger  
than 640 kilobytes.

54. (New) The method of claim 6, wherein the compression ratio of the  
compressed boot data is greater than 2.5:1.

55. (New) The method of claim 46, wherein the operating system comprises multiple files.

56. (New) The method of claim 6, wherein the compressed boot data comprises program code associated with one or more application programs of the computer system.

57. (New) The method of claim 6, wherein the compressed boot data comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

58. (New) The method of claim 56, wherein the one or more application programs includes multiple files.

59. (New) The method of claim 6, wherein the accessing comprises: accessing the compressed boot data via direct memory access.

60. (New) The method of claim 6, wherein Huffman encoding is utilized to encode the compressed boot data.

61. (New) The method of claim 6, wherein Lempel-Ziv encoding is utilized to encode the compressed boot data.



62. (New) The method of claim 6, wherein a plurality of encoders are utilized to encode the compressed boot data.

63. (New) The system of claim 7, wherein the boot data in compressed form represents a plurality of files.

64. (New) The system of claim 7, wherein the boot data comprises program code associated with an operating system.

65. (New) The system of claim 7, further comprising:  
one or more advanced compression encoders configured to compress the boot data to provide the boot data in compressed form.

66. (New) The system of claim 7, further comprising:  
one or more advanced decompression decoders configured to decompress the boot data in compressed form.

67. (New) The system of claim 7, wherein the processor is further configured to load the boot data in compressed form into a contiguous portion of the memory and to decompress the boot data in compressed form to a different portion of the memory than the contiguous portion.

68. (New) The system of claim 7, wherein the memory is virtual.

69. (New) The system of claim 7, wherein the memory is physical.

70. (New) The system of claim 7, wherein the boot data in compressed form is larger than 512 kilobytes.

71. (New) The system of claim 7, wherein the boot data in compressed form is larger than 640 kilobytes.

72. (New) The system of claim 7, wherein the compression ratio of the boot data in compressed form is greater than 2.5:1.

73. (New) The system of claim 7, wherein the boot data in compressed form is comprised of multiple files.

74. (New) The system of claim 7, wherein the boot data comprises program code associated with one or more application programs of the system.

75. (New) The system of claim 7, wherein the boot data comprises program code associated with a combination of an operating system of the system and one or more application programs.

76. (New) The system of claim 74, wherein the one or more application programs are comprised of multiple files.

77. (New) The system of claim 7, wherein the processor is further configured to access the at least a portion of the boot data in compressed form the memory via direct memory access.

78. (New) The system of claim 7, wherein the processor is further configured to utilize Huffman encoding to encode the boot data to provide the boot data in compressed form.

79. (New) The system of claim 7, wherein the processor is further configured to utilize Lempel-Ziv encoding to encode the boot data to provide the boot data in compressed form.

80. (New) The system of claim 7, further comprising:  
a plurality of encoders configured to encode the boot data in compressed form.

81. (New) The method of claim 9, wherein the operating system in compressed form represents a plurality of files.

82. (New) The method of claim 9, wherein the operating system in compressed form comprises program code associated with an operating system.

83. (New) The method of claim 9, further comprising:  
compressing the operating system with one or more advanced compression encoders to provide the operating system in compressed form.

84. (New) The method of claim 9, wherein the decompressing the first and second portions comprise:  
decompressing the first and second portions with one or more advanced decompression decoders.

85. (New) The method of claim 9, wherein the loading comprises:  
loading the operating system in compressed form into a contiguous portion of the second memory, and wherein the decompressing the first portion comprises:  
decompressing the first portion into a different portion of the second memory than the contiguous portion.

86. (New) The method of claim 9, wherein the memory is virtual.

87. (New) The method of claim 9, wherein the memory is physical.

88. (New) The method of claim 9, wherein the operating system in compressed form is larger than 512 kilobytes.

89. (New) The method of claim 9, wherein the operating system in compressed form is larger than 640 kilobytes.

90. (New) The method of claim 9, wherein the compression ratio of the operating system in compressed form is greater than 2.5:1.

91. (New) The method of claim 9, wherein the operating system is comprised of multiple files.

92. (New) The method of claim 9, wherein the operating system comprises program code associated with one or more application programs of the computer system.

93. (New) The method of claim 9, wherein the operating system in compressed form comprises program code associated with a combination of an operating system of the computer system and one or more application programs.

94. (New) The method of claim 92, wherein the one or more application programs are comprised of multiple files.

95. (New) The method of claim 9, wherein the accessing comprises:  
accessing the first portion from the second memory via direct memory access.

96. (New) The method of claim 9, wherein Huffman encoding is utilized to encode the operating system in compressed form.

97. (New) The method of claim 9, wherein Lempel-Ziv encoding is utilized to encode the operating system in compressed form.

98. (New) The method of claim 9, wherein a plurality of encoders are utilized to encode the operating system in compressed form.

99. (New) The method of claim 12, wherein the boot data in compressed form represents a plurality of files.

100. (New) The method of claim 12, wherein the boot data comprises program code associated with the operating system.

101. (New) The method of claim 12, further comprising;  
compressing the boot data in compressed form utilizing one or more advanced compression encoders to provide the boot data in compressed form.

102. (New) The method of claim 12, wherein the decompressing comprises:  
decompressing the boot data in compressed form utilizing one or more advanced decompression decoders.

103. (New) The method of claim 12, wherein the loading comprises:  
loading the boot data in compressed form into a contiguous portion of the  
memory, and wherein the decompressing comprises:

decompressing the boot data in compressed form into a different portion of the  
memory than the contiguous portion.

104. (New) The method of claim 12, wherein the memory is virtual.

105. (New) The method of claim 12, wherein the memory is physical.

106. (New) The method of claim 12, wherein the boot data in compressed form  
is larger than 512 kilobytes.

107. (New) The method of claim 12, wherein the boot data in compressed form  
is larger than 640 kilobytes.

108. (New) The method of claim 12, wherein the compression ratio of the boot  
data in compressed form is greater than 2.5:1.

109. (New) The method of claim 12, wherein the operating system is comprised  
of multiple files.

110. (New) The method of claim 12, wherein the boot data comprises program code associated with one or more application programs of the computer system.

111. (New) The method of claim 12, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

112. (New) The method of claim 110, wherein the one or more application programs are comprised of multiple files.

113. (New) The method of claim 12, wherein the accessing comprises:  
accessing the boot data in compressed form from the memory via direct memory access.

114. (New) The method of claim 12, wherein Huffman encoding is utilized to encode the boot data in compressed form.

115. (New) The method of claim 12, wherein Lempel-Ziv encoding is utilized to encode the boot data in compressed form.

116. (New) The method of claim 12, wherein a plurality of encoders are utilized to encode the boot data in compressed form.



117. (New) The method of claim 14, wherein the compressed boot data represents a plurality of files.

118. (New) The method of claim 14, wherein the boot data comprises program code associated with the operating system.

119. (New) The method of claim 14, further comprising:  
compressing the boot data with one or more advanced compression encoders to provide the compressed boot data.

120. (New) The method of claim 14, wherein the decompressing comprises:  
decompressing the compressed boot data with one or more advanced decompression decoders.

121. (New) The method of claim 14, wherein the loading comprises:  
loading the compressed boot data into a contiguous portion of the memory, and wherein the decompressing comprises:  
decompressing the compressed boot data into a different portion of the memory than the contiguous portion.

122. (New) The method of claim 14, wherein the memory is virtual.

123. (New) The method of claim 14, wherein the memory is physical.

124. (New) The method of claim 14, wherein the compressed boot data is larger than 512 kilobytes.

125. (New) The method of claim 14, wherein the compressed boot data is larger than 640 kilobytes.

126. (New) The method of claim 14, wherein the compression ratio of the compressed boot data is greater than 2.5:1.

127. (New) The method of claim 14, wherein the operating system is comprised of multiple files.

128. (New) The method of claim 14, wherein the boot data comprises program code associated with one or more application programs of the computer system.

129. (New) The method of claim 14, wherein the boot data comprises program code associated with a combination of the operating system and one or more application programs.

130. (New) The method of claim 128, wherein the one or more application programs are comprised of multiple files.

131. (New) The method of claim 14, wherein the accessing comprises:  
accessing the compressed boot data from the memory via direct memory access.
132. (New) The method of claim 14, wherein Huffman encoding is utilized to  
encode the compressed boot data.
133. (New) The method of claim 14, wherein Lempel-Ziv encoding is utilized to  
encode the compressed boot data.
134. (New) The method of claim 14, wherein a plurality of encoders are utilized  
to encode the compressed boot data

**Remarks**

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-4 and 6-140 are pending in the application, with claims 1, 6-7, 9, 12, and 14-15 being the independent claims. Claims 1-4 and 6-13 are sought to be amended. Claim 5 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Applicants reserve the right to prosecute similar or broader claims, with respect to the cancelled and/or amended claims, in the future. New claims 15-134 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

**Double Patenting**

Claims 1-14 stand rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 1-13, claims 1-24, and claims 1-31 of U.S. Patent Nos. 8,112,619; 8,090,936; and 7,181,608, respectively.

Claims 1-4 and 6-14

Applicants are submitting a Terminal Disclaimer concurrently herewith to overcome the double patenting rejection with respect to the claims presented above. The filing of this Terminal Disclaimer is not an admission of the propriety of the rejection. See, *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). Accordingly, Applicants respectfully request that the

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obviousness-type double patenting rejection of claims 1-4 and 6-14 be reconsidered and withdrawn.

Claim 5

Applicants have cancelled claim without prejudice or disclaimer, thereby rendering the rejection moot. Applicants contend that the cancelling of claim 5 does not give rise to any implication regarding whether Applicants agree with or acquiesce to this rejection.

***Rejections Under 35 U.S.C. § 103***

Claims 6-11 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 6,073,232 to Kroeker ("Kroeker") in view of U.S. Patent No. 6,434,695 to Esfahani ("Esfahani"). Applicants respectfully traverse these rejections.

***Kroeker and Esfahani do not Teach or Suggest Each and Every Feature of Claims 6-7 and 9 as Amended***

Independent claim 6 has been amended to recite, among other features, "*wherein the accessing and the decompressing occur within a period of time which is less than a time to access the boot data from the non-volatile memory in an uncompressed form.*" Independent claim 7 has also been amended to recite, among other features, "*wherein the processor is configured to load at least a portion of the boot data in compressed form into the memory, and to access the at least a portion of the boot data in compressed form and decompress at a rate that decreases boot time relative to booting the system with uncompressed boot data.*" Furthermore, independent claim 9 has been amended to

recite, among other features, "*wherein the first and second portions are accessed and decompressed at a rate that is faster than accessing the first and second portions from the non-volatile memory in uncompressed form.*" Kroeker and Esfahani, alone or any combination thereof, do not teach or suggest at least these features.

Consequently, Kroeker and Esfahani do not render independent claims 6, 7, and 9 obvious, and thus independent claims 6 and 7 are allowable. Dependent claims 8 and 10-11 are likewise allowable for the same reasons as the independent claims from which they respectively depend and further in view of their own features. Accordingly, Applicants respectfully request that the rejection of claims 6-11 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

***The Combination of the Kroeker and Esfahani References is Based on Impermissible Hindsight***

The Examiner concedes that "Kroeker does not teach about accessing compressed boot data," in rejecting independent claims 6, 7, and 9. (Office Action, pp. 5-6 and 8). The Examiner alleges that Esfahani cures this deficiency and, through combining Kroeker and Esfahani, that "it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the cited references as they are directed to minimize a computer's initial program load time or shortening the load time of the computer programs from a hard disk drive to a hot computer." (*Id.*). Applicants respectfully disagree.

The Examiner is respectfully reminded that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious." (MPEP §

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2143.01.III). Furthermore, "***it is not enough to simply show that the references disclose the claim limitations***; in addition, 'it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.'" (*Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors*, 617 F.3d 1296, (2010) (quoting *KSR International Co. v. Teleflex*, 550 U.S. at 401, Emphasis Added).

To further clarify, Kroeker recognizes that "the transfer of [a] selected program to [a] computer is relatively slow, particularly when the program is a modern large operating system." (Kroeker, 1:29-31). To speed computer boot time, Kroeker "generates a prefetch table that contains pointers to disk locations and lengths of the records of an application program requested by the host computer during an initial power-on/reset." (Kroeker, Abstract).

The boot system of Kroeker, therefore, provides a method whereby "[a] pre fetch table is then generated. . .[t]hen, after a subsequent power-on or reset of the hard disk drive, and during a second power-on or reset of the host computer, the pre fetch table is accessed to read into the data cache the data records. . .[if] records requested by the subsequent read command are stored in the data cache. . .the records are communicated from the cache to the host computer; otherwise, the records are communicated from the disk to the host computer." (Kroeker, 2:36-47). In other words, regardless of whether the records are stored in the data cache, the records are communicated from the cache or the disk to the host computer ***without any need to compress the records***. In other words, Kroeker adequately reduces boot load time through the use of prefetch tables, and nowhere does Kroeker or Esfahani teach or suggest deficiencies in the booting system of

Kroeker to cause one skilled in the art to modify this booting system to use compressed data as alleged in the Office Action.

Furthermore, Esfahani is concerned not with boot speed or storage efficiency, but with "facilitating the debugging and upgrading of a computer operating system." (Esfahani, ¶ [0001]). That is, the boot loading system of Esfahani solves different problems entirely than Kroeker. Esfahani further explains the benefits of its boot system. Column 4:55 – Column 5:6 states in full:

The benefits of this approach include the following: When hardware changes are needed, only the hardware-specific code has to be modified, greatly decreasing the turnaround time for new products and software product releases, and reducing testing time and expenses. The higher-level ToolBox and System Software seldom needs to change. This approach further provides high confidence that the higher level software has not been changed when creating a new build as a result of changing the hardware-dependent code. Changing the higher-level software less frequently simplifies testing and reduces the time to develop system software and fix bugs. In addition, the memory footprint may be reduced, since fewer patches may be required as the higher-level software is consolidated and unchanged. Running an OS other than the MacOS, such as Rhapsody, becomes simpler. Also, costs tend to be reduced. Today, RAM and disk space are inexpensive, have high capacity, and are fast compared to the ROM, RAM and disk in the original Macintosh.

One skilled in the art would not add Esfahani's compression functionality to Kroeker's boot system, since Kroeker adequately decreases boot time through the use of prefetch tables. Additionally, Esfahani's use of a compressed ROM image solves problems related not to decreasing boot time, but to simplifying an operating system updating procedure. The reasoning provided in the Office Action to combine the Kroeker and Esfahani references, therefore, cannot be based on the knowledge of one of ordinary skill in the art. The Office Action uses impermissible hindsight to reconstruct Applicants "method for providing accelerated loading of a computer operating system" from the Kroeker and Esfahani references. To guard against impermissible hindsight,



the Office must fully articulate its obviousness rejections. See *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006). For instance, the Examiner may not use the challenged claims as a roadmap on how or why to combine references. See, e.g., *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004).

Instead, the Examiner must rely solely on the prior art teachings and knowledge of a person of ordinary skill at the time the invention was made to determine whether an invention is obvious. See *In re Kahn*, 441 F.3d at 986 and MPEP § 2145.X.A. If anything, it is only when the Specification of this Application is used as a blueprint that a person of ordinary skill in the art would be motivated to combine Kroeker and Esfahani in the manner set forth in the Office Action. But this combination is impermissibly based on hindsight bias. See *KSR*, 127 S.Ct. at 1742 (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1966)) (warning that "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant on ex post reasoning").

Because the only motivation to combine the Kroeker and Esfahani references is based on impermissible hindsight, the combination is improper. Consequently, the combination of Kroeker and Esfahani does not render claims 6-7 and 9 obvious, and thus claims 6-7 and 9 are allowable based at least upon this impermissible combination. Dependent claims 8 and 10-11 are likewise allowable for the same reasons as the independent claims from which they respectively depend and further in view of their own features. Accordingly, Applicants further request that the rejection of claims 6-11 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

***New Claims 15-134***

Independent claim 15 has been added. Independent claim 15 recites, among other features, "*servicing requests for boot data from the computer system using the loaded compressed boot data, wherein the servicing requests include accessing compressed boot data and decompressing the compressed boot data at a rate that decreases an overall boot time relative to loading the operating system in uncompressed form.*" Kroeker and Esfahani, alone or any combination thereof, do not teach or suggest at least these features, and thus new claim 15 is allowable.

Dependent claims 16-134 have also been added, which depend from independent claims 1, 6-7, 9, 12, and 14-15. As independent claims 1, 6-7, 9, 12, and 14-15 are allowable, new claims 16-134 are likewise allowable for the same reasons as the independent claims from which they depend and further in view of their own respective features.


***Conclusion***

As discussed herein, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No.: 8978
FALLON <i>et al.</i>	Art Unit: 2115
Appl. No.: 13/118,122	Examiner: SURYAWANSHI, Suresh
Filed: May 27, 2011	Atty. Docket: 2855.004000B
For: <b>Systems and Methods for Accelerated Loading of Operating Systems and Application Programs</b>	

**Third Supplemental Information Disclosure Statement**

*Mail Stop RCE*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Notice of Prior and Concurrent Proceedings

Applicants hereby call to the attention of the Patent and Trademark Office the following reexamination proceedings involving patents that are commonly-assigned with the patent in the above-identified patent application:

<b>Proceeding</b>	<b>Status</b>
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,486)	Inter Partes Reexamination Certificate issued 10/10/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,321,937 (Control No. 95/000,466)	Inter Partes Reexamination Certificate issued 05/15/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,604,158 (Control No. 95/000,453)	Terminated
<i>Ex Parte</i> Reexamination of U.S. Patent No. 6,601,104 (Control No. 90/009,428)	Ex Parte Reexamination Certificate issued 02/28/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,378,992 (Control No. 95/000,478)	Inter Partes Reexamination Certificate issued 10/04/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 6,624,761 (Control No. 95/000,464)	Inter Partes Reexamination Certificate issued 06/12/2012
<i>Inter Partes</i> Reexamination of U.S. Patent No. 7,161,506 (Control No. 95/000,479)	Inter Partes Reexamination Certificate issued 05/22/2012