

4-1703

PTO/SB/05 (12/97)
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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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UTILITY PATENT APPLICATION TRANSMITTAL <small>(Only for new nonprovisional applications under 37 CFR 1.53(b))</small>		Attorney Docket No.	SJ0920020041US1	Total Pages	47
		First Named Inventor or Application Identifier			
James V. Carlson					
Express Mail Label No.		EU329839960US			

JC685 U.S. PTO
03/14/03



APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.		Assistant Commissioner for Patents ADDRESS TO: Box Patent Application Washington, DC 20231	
<p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (Submit an original, and a duplicate for fee processing)</p> <p>2. <input checked="" type="checkbox"/> Specification (Total Pages) <u>35</u> (Preferred arrangement set forth below)</p> <ul style="list-style-type: none"> - Descriptive title of the Invention - Cross References to Related Application - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure <p>3. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) (Total Pages) <u>8</u></p> <p>4. Oath or Declaration (Total Pages) <u>4</u></p> <p>a. <input checked="" type="checkbox"/> Newly executed (original or copy)</p> <p>b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) (for continuation /divisional with Box 17 completed) [Note Box 5 below]</p> <p>i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</p> <p>5. <input type="checkbox"/> Incorporation by Reference (useable if Box 4b is checked) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.</p>		<p>6. <input type="checkbox"/> Microfiche Computer Program (Appendix)</p> <p>7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)</p> <p>a. <input type="checkbox"/> Computer Readable Copy</p> <p>b. <input type="checkbox"/> Paper Copy (identical to computer copy)</p> <p>c. <input type="checkbox"/> Statement verifying identify of above copies</p>	
ACCOMPANYING APPLICATION PARTS			
<p>17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:</p> <p><input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.:</p>		<p>8. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))</p> <p>9. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee) <input checked="" type="checkbox"/> Power of Attorney</p> <p>10. <input type="checkbox"/> English Translation Document (if applicable)</p> <p>11. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations</p> <p>12. <input type="checkbox"/> Preliminary Amendment</p> <p>13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)</p> <p>14. <input type="checkbox"/> Small Entity Statement filed in prior application, Status still proper and desired</p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s) if foreign priority is claimed</p> <p>16. <input checked="" type="checkbox"/> Other: Express Mail Certificate</p>	

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Or Correspondence address below

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Assignee Name: INTERNATIONAL BUSINESS MACHINES CORPORATION					
Assignee Residence: Armonk, New York					

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FEE TRANSMITTAL <i>Note: Effective October 1, 2001. Patent fees are subject to annual revision.</i>		Complete If Known		
		Application Number	Not yet assigned	
		Filing Date	March 14, 2003	
		First Named Inventor	James V. Carlson	
		Group Art Unit		
TOTAL AMOUNT OF PAYMENT		\$ 1168	Attorney Docket Number	SJO920020041US1

METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																																																																																																																																																									
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: Deposit Account Number: <u>09-0466</u> Deposit Account Name: <u>IBM CORPORATION</u> <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Charge the Issue Fee In 37 CFR at the Mailing of the Notice of Allowance		3. 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SUBMITTED BY			Complete (if applicable)	
Typed or Printed Name	Brian C. Kunzler		Reg. Number	38,527
Signature		Date	Mar 14, 2003	Deposit Account User ID

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PATENT APPLICATION
Docket No.: SJO920020041US1

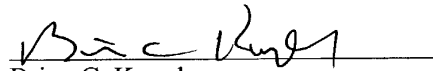
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Date of Deposit: March 14, 2003

I hereby certify that this patent application in the name of James V. Carlson, Linda M. Duyanovich, Toby L. Marek, David R. Nowlen, David A. Pease, and Michael L. Walker for SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT, together with the drawings, a Declaration, Power of Attorney, and Petition, an Assignment and Recordation Form Cover Sheet, Information Disclosure Statement, PTO Form 1449, and Copies of Cited References are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Respectfully submitted,



Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

Date: March 14, 2003

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<p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (Submit an original, and a duplicate for fee processing)</p> <p>2. <input checked="" type="checkbox"/> Specification (Total Pages) <u>35</u> (Preferred arrangement set forth below)</p> <ul style="list-style-type: none"> - Descriptive title of the Invention - Cross References to Related Application - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure <p>3. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) (Total Pages) <u>8</u></p> <p>4. Oath or Declaration (Total Pages) <u>4</u></p> <p>a. <input checked="" type="checkbox"/> Newly executed (original or copy)</p> <p>b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) (for continuation /divisional with Box 17 completed) [Note Box 5 below]</p> <p>i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</p> <p>5. <input type="checkbox"/> Incorporation by Reference (useable if Box 4b is checked) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.</p>		<p>6. <input type="checkbox"/> Microfiche Computer Program (Appendix)</p> <p>7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)</p> <p>a. <input type="checkbox"/> Computer Readable Copy</p> <p>b. <input type="checkbox"/> Paper Copy (identical to computer copy)</p> <p>c. <input type="checkbox"/> Statement verifying identify of above copies</p>	
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		<p>8. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))</p> <p>9. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee) <input checked="" type="checkbox"/> Power of Attorney</p> <p>10. <input type="checkbox"/> English Translation Document (if applicable)</p> <p>11. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations</p> <p>12. <input type="checkbox"/> Preliminary Amendment</p> <p>13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)</p> <p>14. <input type="checkbox"/> Small Entity Statement filed in prior application, Status still proper and desired</p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s) if foreign priority is claimed</p> <p>16. <input checked="" type="checkbox"/> Other: Express Mail Certificate</p>	

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

Continuation Divisional Continuation-in-part (CIP) of prior application No.:

18. CORRESPONDENCE ADDRESS

Customer Number or Bar Code Label _____

Or Correspondence address below

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CITY	Salt Lake City	STATE	Utah
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		FAX	(801) 322-1054
Assignee Name: INTERNATIONAL BUSINESS MACHINES CORPORATION			
Assignee Residence: Armonk, New York			

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<h1>FEE TRANSMITTAL</h1> <p><i>Note: Effective October 1, 2001. Patent fees are subject to annual revision.</i></p>		Complete If Known		
		Application Number	Not yet assigned	
		Filing Date	March 14, 2003	
		First Named Inventor	James V. Carlson	
		Group Art Unit		
TOTAL AMOUNT OF PAYMENT		\$ 1168	Attorney Docket Number	SJO920020041US1

METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																																																																																																																																																									
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: Deposit Account Number: <u>09-0466</u> Deposit Account Name: <u>IBM CORPORATION</u> <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Charge the Issue Fee In 37 CFR at the Mailing of the Notice of Allowance		3. ADDITIONAL FEES <table border="1"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>2053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2520</td><td>1812</td><td>2520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1840*</td><td>1805</td><td>1840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>1970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1510</td><td>1451</td><td>1510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - intentional</td><td></td></tr> <tr><td>1453</td><td>1300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1300</td><td>2501</td><td>650</td><td>Utility issue fee</td><td></td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>630</td><td>2503</td><td>315</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>40</td></tr> <tr><td>1809</td><td>750</td><td>1809</td><td>375</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>750</td><td>2810</td><td>375</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		1053	130	2053	130	Non-English specification		1812	2520	1812	2520	For filing a request for reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1840*	1805	1840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1450	2254	725	Extension for reply within fourth month		1255	1970	2255	985	Extension for reply within fifth month		1401	320	2401	160	Notice of Appeal		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1451	1510	1451	1510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - intentional		1453	1300	2453	650	Petition to revive - unintentional		1501	1300	2501	650	Utility issue fee		1502	470	2502	235	Design issue fee		1503	630	2503	315	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40	1809	750	1809	375	Filing a submission after final rejection (37 CFR 1.129(a))		1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
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SUBMITTED BY			Complete (if applicable)	
Typed or Printed Name	Brian C. Kunzler		Reg. Number	38,527
Signature		Date	Mar 14, 2003	Deposit Account User ID

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PATENT APPLICATION
Docket No.: SJO920020041US1

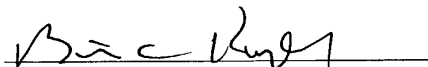
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Date of Deposit: March 14, 2003

I hereby certify that this patent application in the name of James V. Carlson, Linda M. Duyanovich, Toby L. Marek, David R. Nowlen, David A. Pease, and Michael L. Walker for SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT, together with the drawings, a Declaration, Power of Attorney, and Petition, an Assignment and Recordation Form Cover Sheet, Information Disclosure Statement, PTO Form 1449, and Copies of Cited References are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Respectfully submitted,



Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

Date: March 14, 2003

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10 West 100 South, Suite 425
Salt Lake City, Utah 84101
Telephone: 801/994-4646

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PATENT APPLICATION
Docket No.: 1200.2.60
IBM Docket No.: SJO920020041US1

UNITED STATES PATENT APPLICATION

of

James V. Carlson
Linda M. Duyanovich
Toby L. Marek
David R. Nowlen
David A. Pease
and
Michael L. Walker

for

**SYSTEM, METHOD, AND APPARATUS FOR
POLICY-BASED DATA MANAGEMENT**

1 **SYSTEM, METHOD, AND APPARATUS FOR**
2 **POLICY-BASED DATA MANAGEMENT**

3
4
5 **BACKGROUND OF THE INVENTION**

6
7 1. **The Field of the Invention**

8 The invention relates to networking and data storage. More particularly, the
9 invention relates to a system and method for policy-based data management on a distributed
10 storage system.

11
12 2. **The Relevant Art**

13 Networks have become instrumental in situations in which data is transferred from
14 one computer to another, or from clients such as an independent workstation to a centralized
15 storage facility. It is common for storage applications to have very specialized needs. In
16 response to these needs, distributed storage systems have been developed. One type of
17 distributed storage system is a storage area network (SAN). A distributed storage system
18 typically has a plurality of clients connected to a plurality of storage pools. The clients of the
19 distributed storage system may, in some cases, be servers that transmit data between the
20 distributed storage system and individual computers.

21 Unfortunately, a number of storage related issues have not yet been successfully
22 addressed by known distributed storage system configurations. A distributed storage system
23 is often called upon to carry out several different operations simultaneously. Consequently,
24 the resources of the distributed storage system, or of a server connected to the distributed
25 storage system, can easily become saturated, particularly when many users wish to
26 simultaneously store, retrieve, or move data on the distributed storage system.

1 Additionally, many known distributed storage systems have no method of prioritizing
 2 operations. Consequently, a low-importance, high resource operation, such as a bulk file
 3 transfer, may preempt memory, caching space, input/output (I/O) bandwidth, processor
 4 capacity, or other resources that are needed for more important operations. Thus,
 5 performance of the more important operations is unnecessarily delayed.

6 Also, current distributed storage systems are not capable of storing data using
 7 prioritized operations within multiple platforms. Typically, all of the computers on a
 8 distributed storage system must have the same type of operating system. If data from
 9 multiple platforms are to be stored, the data must be routed through multiple distributed
 10 storage systems and stored in different locations.

11 Furthermore, known distributed storage systems generally do not permit a user to
 12 automatically select between multiple storage options when generating files. Nor do these
 13 systems account for the different requirements placed on these files. Specifically, different
 14 files may have different requirements for accessibility, disaster recoverability, retrieval
 15 speed, retrieval consistency, and storage format. Some files may need to be accessed by
 16 many people simultaneously, while others are only used rarely, by a single user. Some files
 17 are “mission critical,” and therefore must not be lost if hardware damage occurs; others are
 18 more expendable. Similarly, some files must be accessed rapidly and/or transferred at a
 19 consistent, rapid data transfer rate, while others do not require rapid access. Certain file
 20 types, such as database files, are advantageously stored in a “sparse” format that permits
 21 subsequent expansion, while other files can be densely packed together.

22 By the same token, great variation exists in the equipment available to store data. In
 23 general, greater capacity, greater access speed, higher throughput, and higher disaster
 24 recoverability equate to higher cost. Without a variety of options for data storage, some files
 25 are stored in a manner that provides insufficient performance, and others take up
 26 comparatively expensive storage capacity that provides an unnecessarily expensive level of
 27 performance.

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Consequently, what is needed is a comparatively simple and versatile system, method, and apparatus for managing data in a network according to predetermined policies. What is particularly needed is a data management system, method, and apparatus that prioritize files within the network, with clients that operate based on a plurality of different operating platforms. Further, what is particularly needed is a data management system, method, and apparatus that intelligently stores files in storage pools with a variety of performance levels based policies and the nature of the storage pools. Such a system, apparatus, and method would be particularly desirable if implemented for distributed storage systems that service clients operating under heterogeneous platforms.

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BRIEF SUMMARY OF THE INVENTION

The system, method, and apparatus of the present invention have been developed in response to the present state of the art, and in particular, in response to the problems and needs in the art that have not yet been fully solved by currently available storage area network systems. Accordingly, the present invention has been developed to provide a policy-based data management system that overcomes many or all of the above-discussed shortcomings in the art.

In one embodiment, the data management system may be implemented in a network having a plurality of clients. The clients may be individual workstations or servers connected to workstations. Due to the nature of the invention, the clients need not all operate on the same platform. The clients may be connected to a local area network (LAN) and to a distributed storage system, which may take the form of a storage area network (SAN). One or more servers are also connected to the LAN and the SAN. The servers have, as one of their functions, the duty of assigning and distributing metadata for files on the system and will hereafter be referred to as "metadata servers." Additionally, a metadata disk or pool of disks may be connected to the metadata servers through a LAN or the SAN. One or more storage devices or pools of storage devices are preferably connected to the distributed storage system.

The data management system is, in one embodiment, policy-based. More precisely, the data management system preferably incorporates a policy set, which includes a service class policy and a storage pool policy. Each of the policies preferably includes a number of rules designed to select a service class and/or storage pool for a file based on attributes of the file. Service classes may be hierarchical, for example, platinum, gold, silver, or bronze, reflecting the relative importance of the data. Of course, the service classes may be assigned any combination of rules, and need not be hierarchical.

In one embodiment, each of the clients is provided with a file transmission module that is configured to transmit attributes of a file to the metadata server. A file evaluation

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module is preferably configured to apply the rules of the service class policy and the storage pool policy to the file attributes and the storage pool characteristics to automatically select a service class and a storage pool for the file. These may be added to the file attributes to create metadata for the file. The metadata is in one embodiment stored in the metadata disk pool, and the file is then stored in the selected storage pool.

Each of the clients is provided in one embodiment with a file request transmission module that is configured to transmit file request to the metadata server. A metadata retrieval module in one embodiment receives the translated metadata request and retrieves the metadata that corresponds to the file from the metadata disk pool. The file request transmission module receives the storage pool designation from the metadata for the file, and then transmits a file request to retrieve the file from the corresponding storage pool.

The file and the service class designation for the file are, in one embodiment, received by a file usage module in the client. The file usage module preferably uses the service class to determine the proper allocation of client assets, such as RAM allocation, performance priority, cache allocation scheme, and input/output (I/O) allocation.

The metadata may be stored in the form of a lookup table in the metadata disk pool. For example, file names or object identities related to unique files may be stored in the metadata disk pool, and each file name or object identity may be bound to the corresponding file metadata. Thus, the metadata server may retrieve the metadata for a file by locating the file name or object identity in the metadata disk pool, and reading the corresponding metadata.

According to one embodiment of a file storage and classification method operable in conjunction with the system described above, a policy set is provided and configured. A system administrator may configure the appropriate policy. Attributes of the file to be stored and classified are received by the metadata server, and the file attributes are translated from the native platform of the file to obtain translated attributes.

Based on the attributes, a service class and a storage pool are automatically selected

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1 for the file. Designations of the service class and storage pool may be added to the attributes
2 of the file to provide the file metadata. The file metadata may be stored in the metadata disk
3 pool, in the format described previously. The file may be stored in the selected storage pool.

4 The service class and the storage pool may be selected based on an application of the
5 policy set. More precisely, the rules of the service class policy may be applied to determine
6 the appropriate service class for the file. The rules may be analyzed in order until an
7 appropriate classification is found. For example, the first rule of the service class policy may
8 first be analyzed. If the file satisfies the conditions for the first rule, the file receives the
9 service class that corresponds with the first rule. If the file does not satisfy the conditions for
10 the first rule, the second rule is analyzed, and so on. If the file satisfies none of the rules, it
11 receives a default service class.

12 If desired, the storage pool may be determined partially or solely by the service class.
13 Thus, the rules of the storage pool policy may simply be based on the selected service class.
14 Alternatively, the storage pool policy may involve criteria independent of the service class.
15 The rules of the storage pool policy may be applied sequentially, in a manner similar to the
16 rules of the service class policy. Because the storage pools typically vary in terms of speed,
17 capacity, storage format, disaster recovery, and other factors, these characteristics are taken
18 into account in selecting a storage pool. If the file satisfies none of the rules of the storage
19 pool policy, the file is stored in a default storage pool.

20 According to one embodiment of a file retrieval and usage method, a file request is
21 first received by the metadata server. Metadata for the requested file is then retrieved from
22 the metadata disk pool. The metadata is preferably used to determine the appropriate storage
23 pool. The requested file is then retrieved from the storage pool. In so doing, the metadata
24 for the file is used to control the manner in which the file is handled, including its priority
25 level with respect to other files.

26 In this manner, files are automatically assigned relative priority levels and locations.
27 Higher priority file transactions are performed more expeditiously, and lower priority

1 transmissions are not permitted to tie up undue resources. Furthermore, the files may be
2 automatically assigned to storage locations that suit their need for rapid access, disaster
3 recoverability, and the like.

4 These and other features and advantages of the present invention will become more
5 fully apparent from the following description and appended claims, or may be learned by the
6 practice of the invention as set forth hereinafter.

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BRIEF DESCRIPTION OF THE DRAWINGS

In order that the manner in which the advantages and objects of the invention are obtained will be readily understood, a more particular description of the invention briefly described above will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered to be limiting of its scope, the invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

Figure 1 is a schematic block diagram illustrating one embodiment of a network incorporating a policy based data management system within the scope of the present invention;

Figure 2 is a schematic block diagram illustrating one embodiment of a policy set used to select a service class and storage pool for the network of Figure 1;

Figure 3 is a schematic block diagram illustrating one embodiment of executable modules and data structures within the client and metadata server of the network of Figure 1;

Figure 4 is a schematic block diagram illustrating additional embodiments of executable modules and data structures within the client and metadata server of the network of Figure 1;

Figure 5 is a schematic block diagram illustrating one embodiment of data structures within the metadata disk pool of Figure 1;

Figure 6 is a schematic flow chart diagram illustrating one embodiment of a method of storing a file in the network of Figure 1 and assigning a service class and storage pool to the file;

Figure 7 is a schematic flow chart diagram illustrating one embodiment of a method of selecting the service class within the method of Figure 6;

Figure 8 is a schematic flow chart diagram illustrating one embodiment of a method of selecting the storage pool within the method of Figure 6; and

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1 Figure 9 is a schematic flow chart diagram illustrating one embodiment of a method
2 for retrieving and using a file stored in the network of Figure 1.

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1 **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

2 Many of the functional units described in this specification have been labeled as
3 modules, in order to more particularly emphasize their implementation independence. For
4 example, a module may be implemented as a hardware circuit comprising custom VLSI
5 circuits or gate arrays, off-the-shelf semiconductors such as logic chips, transistors, or other
6 discrete components. A module may also be implemented in programmable hardware
7 devices such as field programmable gate arrays, programmable array logic, programmable
8 logic devices or the like.

9 Modules may also be implemented in software for execution by various types of
10 processors. An identified module of executable code may, for instance, comprise one or
11 more physical or logical blocks of computer instructions which may, for instance, be
12 organized as an object, procedure, or function. Nevertheless, the executables of an identified
13 module need not be physically located together, but may comprise disparate instructions
14 stored in different locations which, when joined logically together, comprise the module and
15 achieve the stated purpose for the module.

16 Indeed, a module of executable code could be a single instruction, or many
17 instructions, and may even be distributed over several different code segments, among
18 different programs, and across several memory devices. Similarly, operational data may be
19 identified and illustrated herein within modules, and may be embodied in any suitable form
20 and organized within any suitable type of data structure. The operational data may be
21 collected as a single data set, or may be distributed over different locations including over
22 different storage devices, and may exist, at least partially, merely as electronic signals on a
23 system or network.

24 Referring to Figure 1, a schematic block diagram is shown illustrating a
25 representative network 100 suitable for use with the present invention. The network 100, as
26 shown, includes a number of clients 102, 104, 106, 108. The clients 102, 104, 106, 108 may
27 be workstations or servers communicating with workstations and in certain embodiments

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1 operate on a single platform or a plurality of different operating system platforms. For
2 example, the client 102 may be Windows™ based, while the client 104 may be Solaris™
3 based, the client 106 may run based on AIX®, and the client 108 may be Linux-based. The
4 network 100 is preferably configured to bear large amounts of traffic, particularly data
5 packets and messaging packets related to data storage, retrieval, and maintenance.

6 As shown, the clients 102, 104, 106, and 108 are connected to a local area network, or
7 LAN 110. A plurality of metadata servers 120, 125 are also connected to the LAN 110 and
8 to a distributed storage system, which may take the form of a storage area network, or SAN
9 130. The metadata servers 120, 125 may each have components such as a processor, random
10 access memory (RAM), an internal hard disk drive, a network interface card (NIC), and
11 various I/O controllers. If desired, the metadata servers 120, 125 may cooperate to provide a
12 server cluster. Alternatively, only a single metadata server 120 or 125 may be used. An
13 administrator workstation (not shown) may also be connected to the LAN 110, and may have
14 specialized software and/or access to control policy implementation over the network 100.

15 A metadata disk pool 140 may be connected to the metadata servers 120, 125 through
16 a LAN or, as shown, through the SAN 130. A plurality of storage pools, including a first
17 storage pool 150, a second storage pool 152, a third storage pool 154, and a fourth storage
18 pool 156 are also shown connected to the SAN 130. The storage pools each contain one or
19 more storage devices and may vary in storage type, configuration, location, accessibility, etc.
20 The metadata disk pool 140 stores data related to the operation of the data management
21 system, in a manner that will be shown and described in greater detail below. The storage
22 pools 150, 152, 154 provide file storage to the clients 102-105.

23 In one embodiment, the SAN 130 is a local area network in which the metadata
24 servers 120, 125, the metadata disk pool 140, and the storage pools 150, 152, 154 are housed
25 within the same facility or campus. In another embodiment, the SAN 130 is a wide area
26 network with at least some of the clients 102, 104, 106, 108, the metadata server 125, the
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1 metadata disk pool 140, and the storage pools 150, 152, 154 housed in geographically
2 disparate locations.

3 The metadata disk pool 140 may be a single hard drive, a RAID system, or the like.
4 Alternatively, the metadata disk pool 140 may include multiple physical storage units, which
5 may be housed in separate locations. Depiction of the metadata disk pool 140 as a single unit
6 in Figure 1 is by way of example, only. Similarly, the storage pools 150, 152, 154 are
7 depicted as discrete physical units only by way of example. If desired, one physical unit may
8 contain multiple storage pools, and a single storage pool may be spread over multiple
9 physical units. Virtual logical unit numbers (LUNs) may be used as part of a particular
10 storage pool.

11 The storage pools 150, 152, 154 may comprise a plurality of storage types. For
12 example, a first storage pool 150 in one embodiment comprises a high capacity hard drive.
13 The first storage pool 150 may be comparatively slow, and may have a relatively lower
14 probability of successful data recovery in the event of hardware damage, due to the lack of
15 redundant storage hardware. Consequently, the first storage pool 150 may be most suitable
16 for files that do not need to be accessed and transferred rapidly, and that are not critical to
17 users of the network 100.

18 A second storage pool 152, by way of example, may comprise a RAID system of
19 hard drives, with a comparatively fast, cached input/output system. Thus, the second storage
20 pool 152 provides higher speed and greater disaster recoverability than the first storage pool
21 150. The second storage pool 152 may store data in a non-mirrored format. The first and
22 second storage pools 150, 152 may be stored in a common facility, which may be designated
23 "Building A."

24 A third storage pool 154, by way of example, may comprise a RAID system of hard
25 drives, with a fast input/output system and a mirrored data storage format. The third storage
26 pool 154 may thus provide the greatest disaster recoverability in addition to rapid file access
27 and data transfer. The third storage pool 154 may be somewhat slower than the second

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storage pool 152 due to the time required for data mirroring. In the alternative, the third storage pool 154 may include additional hardware, such as caching or an integrated processor, to enable the third storage pool 154 to access and transfer data more rapidly than the second storage pool 152.

Some storage pools, such as the third storage pool 154 may be stored at a facility separate from that of the first and second storage pools 150, 152; for example, the third storage pool 154 may be located in "Building B." Building B is separated from Building A by a distance sufficient to ensure that a single disaster will not destroy both the second storage pool 152 and the third storage pool 154. One of the pools 156 may also comprise a tape backup. While four storage pools are depicted, it should be noted that any number of storage pools may be employed under the present invention.

The determination of which of the storage pools 150, 152, or 154 is to be used to store a particular file is preferably made selectively, so that more important files are more rapidly accessible and more likely to be fully recovered in the event of a hardware failure. Furthermore, the network 100 is preferably able to intelligently allocate the resources of the network 100, so that more important operations receive priority over less important ones. Such determinations may be made through the use of policy based data management, as will be shown and described in greater detail in connection with Figure 2.

The network 100 of Figure 1 is only one embodiment of a network in which the principles of the present invention may be utilized and is given by way of example only. It should be readily recognized that policy based data management may be applied to a variety of different system types, including LANs, WANs, and SANs, and combinations thereof. Components of such a system maybe connected by a plurality of intermediate components known in the art, such as switches, routers, hubs, and bridges. File servers may or may not be utilized in the data paths of such networks. Policy based data management may also be used with components connected via the Internet.

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1 Referring to Figure 2, a schematic block diagram is shown illustrating one concept of
2 a policy implementation 200 suitable for a network such as the network 100. Policy based
3 management is carried out through the use of a policy set 210. The policy set 210 may
4 include several different types of policies. In the policy implementation 200 of Figure 2, the
5 policy set 210 is applied with respect to files. Hence, attributes of each file are used to
6 classify the file according to the policy set 210. Such attributes may include the file name,
7 the file extension (which often indicates the file type), the container administrative name, the
8 file owner, the group name of the file owner, the system ID of the workstation or server
9 sending the file, and the dates and times of file creation, access, and modification, etc. Other
10 file attributes may also be used to aid policy-based data management.

11 The policy set 210 may include multiple policies of each type to accommodate the
12 changing priorities caused by business rules or cycles. Thus, when priorities on the network
13 100 change, a different policy may be implemented accordingly. For example, it may be
14 desirable to shift file priorities for end-of-year processing carried out by one or more of the
15 clients 102, 104, 106, 108. Thus, the network administrator may activate a different policy
16 or set of policies to give higher priority to the files to be processed. Only one policy is active
17 for each policy type at any given time, however.

18 In the depicted embodiment, the policy set 210 includes a service class policy 220
19 and a storage pool policy 230. The service class policy 220 includes at least one service
20 class rule that dictates what service class is applied to a file with a given attribute. For
21 example, the service class policy 220 includes a first rule 240, a second rule 242, and other
22 rules through an nth rule 244. Any number of rules may exist between the second rule 242
23 and the nth rule 244. Each of the rules 240, 242, 244 in one embodiment comprises a
24 statement such as "If a given file attribute is X, the file receives service class Y."

25 The storage policy 230 similarly has at least one storage pool rule that dictates which
26 of the storage pools 150, 152, 154 should receive a file with a given attribute. For example,
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the storage policy 230 may have a first rule 250, a second rule 252, an nth rule 254, and any number of rules between the second rule 252 and the nth rule 254.

The service class policy 220 is used to select from among a plurality of service classes, such as the service classes 280, 282, 284, 286, and the storage policy 230 is used to select from among a plurality of storage pools, such as the storage pools 150, 152, 154 depicted in Figure 1. The service class may be a factor in determining the appropriate storage pool. The service classes in one depicted embodiment comprise hierarchical classes including, by way of example, a platinum service class 280, a gold service class 282, a silver service class 284, and a bronze service class 286. In this example, the platinum service class 280 has the highest priority, followed by the gold service class 282, the silver service class 284, and finally, the bronze service class 286. Of course, any number of service classes may be used, and the service classes need not be hierarchical. Each service class may be made up of any number of static or dynamic file treatment rules or operational requirements.

Examples of possible operational requirements include the times within which file operations must be completed by the network 100. In the alternative, each of the service classes 280, 282, 284 286 may specify a portion of system resources that is to be reserved for operations with the file having that service class 280, 282, 284, or 286 when the file is in use.

As another alternative, a portion of the system resources may be allocated for operations with files of each of the service classes 280, 282, 284, 286. Thus, for example, 35% of the cache capacity may be reserved for files having the platinum service class 280, and the 35% may be equally or otherwise apportioned between all open files with the platinum service class 280. As yet another alternative, a system of absolute priority may be used, in which operations for files with lower service classes must always wait for resources to be released by files with higher service classes.

In other embodiments, the service classes may specify different resource requirements. For example, one service class may be used for files that require a large amount of caching, while another is for files that should not be cached, but may require

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1 significant amounts of RAM. Database files, for example, may perform better without
2 external caching because many databases include their own caching. Another service class
3 may be used for data that must be highly recoverable in the event of a catastrophe, but does
4 not require a high level of performance during use. A service class may thus be used to
5 specify particular resource requirements, rather than a general level of priority.

6 Returning to Figure 2, the storage pools 150, 152, 154 may be somewhat hierarchical
7 in terms of their access speed, data transfer rate, and data recoverability. However, these
8 specifications need not vary in the same manner between the storage pools 150, 152, 154.
9 For example, one of the storage pools 150, 152, 154 may have the highest data transfer rate
10 while another has the best likelihood of data recovery in the event of a disaster. This is
11 because a given file may only require rapid access or reliable disaster recoverability.
12 Multiple storage pools can also be simultaneously selected for storage of a file to provide
13 extra disaster recoverability.

14 Optionally, the storage policy 230 may be designed to select the storage pool 150,
15 152, and/or 154 based solely upon the applicable service class 280, 282, 284, or 286. The
16 storage pool policy 230 may then have only one storage pool rule 250, 252, 254 per service
17 class 280, 282, 284, 286. For example, all files with the bronze service class 286 may be
18 stored in the first storage pool 150, while files with the silver service class 284 are stored in
19 the second storage pool 152 for greater speed and data recoverability. Under this example,
20 files with the gold service class 282 may be stored in the third storage pool 154 for yet
21 greater speed and data recoverability.

22 Further to this example, files with the platinum service class 280 may be stored in
23 pools such as the second and third storage pools 152, 154 for the highest data recoverability
24 and speed. Identical copies of the file are stored at Building A and Building B. Thus, even if
25 Building A or Building B is destroyed by fire or another catastrophe, the copy at the other
26 building remains intact. File transfer speed may also be enhanced through the storage of
27 redundant copies, for example, within a single storage pool 150, 152, or 154 because

1 different parts of the file may be simultaneously retrieved from the storage pool 150, 152, or
2 154 to reduce the time required to retrieve the entire file.

3 Use of the storage pool policy 230 may be desirable to permit storage pool selection
4 based on criteria different from those used to select the service class 280 282, 284, or 286.
5 For example, the files that are to receive the highest priority on resources of the network 100
6 may not necessarily be the ones that have to be stored with the highest probability of
7 successful recovery. Thus, selection of the storage pool 150, 152, or 154 may be made
8 completely independently of the service class 280, 282, 284, or 286, or with only partial
9 reference to the service class 280, 282, 284, or 286.

10 The storage pool rules 250, 252, 254 may also be expanded to provide any desired
11 storage parameters. For example, the storage pool rules 250, 252, 254 may be used to more
12 specifically define storage for hierarchical storage management (HSM) systems and the like.

13 The policy set 210 may be applied in a wide variety of ways within a network. One
14 possible mode of application will be shown and described in connection with Figures 3 and
15 4, with reference to the exemplary network 100 of Figure 1.

16 Referring to Figure 3, a schematic block diagram is shown illustrating executable
17 modules and data structures for implementing file storage and classification within the
18 network 100 of Figure 1. By way of example, the executable modules and data structures are
19 shown as residing within the client 102 and the metadata server 125; however, those of skill
20 in the art will recognize that any suitable combinations of components and modules of the
21 network 100 may be used to perform the stated functions of the present invention.

22 The client 102 in this embodiment communicates with the metadata server 125 to
23 request a pool for storage of a new file on the SAN 130. Thus, for example, the client 102 is
24 provided with a file transmission module 300 configured to transmit a new file 310 to the
25 SAN 130 for storage. The file 310 may be formatted according to a variety of different
26 computing platforms, since multiple such platforms may coexist within the network 100.

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Prior to storage, the file 310 must be assigned a service class and storage pool by the metadata server 125. Accordingly, the client 102 thus transmits file attributes 320 of the file 310 to the metadata server 125. The file attributes 320 may be in a standardized format such as a text file when they reach the metadata server 125.

The attributes 340 may include items such as designations of the size 342 of the file 310 (*i.e.*, the space required to store the file 310), and an access list 344 of the file 310 (*i.e.*, the persons or workstations that are able to access the file 310). The attributes 340 may also include designations of the user 346 who created the file 310, the lock status 348 of the file 310 (*i.e.*, whether read, write, or read/write access to the file 310 is restricted due to security issues or contemporaneous use of the file 310 by another user), and the platform 349 in which the file 310 is formatted.

The file attributes 340 are preferably received by a file evaluation module 350, which utilizes the file attributes 340 to apply the policy set 210. More precisely, the file evaluation module 350 may comprise a service class selection module 352 that uses the service class policy 220 to select a service class 280, 282, 284, or 286 for the file 310. Hence, the service class selection module applies the rules 240, 242, 244 of the service class policy 220 to the file attributes 340 to determine which of the service classes 280, 282, 284, 286 is appropriate for the file 310. When the service class selection module 352 determines that the file attributes 340 satisfy the requirements of a rule, the service class selection module 352 assigns the corresponding service class 280, 282, 284, 286 to the file 310.

Additionally, the file evaluation module 350 may comprise a storage pool selection module 354 that uses the storage policy 230 to select one or more of the storage pools 150, 152, 154 for storage of the file 310. The storage pool selection module 354 applies the rules 250, 252, 254 of the storage policy 230 to the file attributes 340 to determine which of the storage pools 150, 152, 154 should receive the file 310. The various capabilities and characteristics of the storage pools are preferably taken into account in doing so. When the storage pool selection module 354 determines that the file attributes 340 satisfy the

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1 requirements of a rule, the storage pool selection module 354 assigns the corresponding
2 storage pool(s) 150, 152, and/or 154 to the file 310.

3 The file evaluation module 350 in one embodiment returns a set of file metadata 360
4 corresponding to the file 310. The file metadata 360 may include all the items from the file
5 attributes 340, including designations of the file size 342, the access list 344, the user 346
6 who created the file 310, the lock status 348 of the file 310, and the platform 349 in which
7 the file 310 is formatted.

8 Additionally, the file metadata 360 may include a storage pool designation 362 that
9 specifies which of the storage pools 150, 152, 154 were selected to receive the file 310, and
10 possibly the precise location of the selected storage pool(s) in which the file 310 is to be
11 stored. Furthermore, the file metadata 360 may include a service class designation 364 that
12 specifies which of the service classes 280, 282, 284, 286 was selected for the file 310. The
13 storage pool and service class designations 362, 364 will be used subsequently in the file
14 retrieval and usage process. If desired, the service class designation 364 may also include
15 specific information related to the selected service class 280, 282, 284, or 286, such as the
16 recoverability (availability), performance, and allocation scheme (*i.e.*, sparse versus dense
17 storage) requirements pertaining to the service class 280, 282, 284, or 286. In some cases,
18 specific storage rules may be returned in lieu of the storage class. These cases include
19 default rules and storage rules of high priority.

20 The file metadata 360 may then be stored by a metadata storage module 370.
21 Metadata for files may all be stored in one location that is easily accessed by the metadata
22 server 125. The network 100 of Figure 1 provides such a location in the form of the
23 metadata disk pool 140. In the alternative, the file metadata 360 may be appended to the file
24 310 and stored with the file, in the selected storage pool(s) 150, 152, and/or 154.

25 The file 310 may be stored by the file transmission module 300. The file
26 transmission module 300 preferably receives the storage pool designation 362 from the file
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1 metadata 360, and routes the file 310 to the corresponding storage pool(s) 150, 152, 154 for
2 storage.

3 Referring to Figure 4, a schematic block diagram is shown illustrating executable
4 modules and data structures for implementing file retrieval and usage within the network 100
5 of Figure 1. As with Figure 3, the executable modules and data structures are shown as
6 residing within the client 102 and the metadata server 125. Nevertheless, the executable
7 modules and data structures of Figure 4 may be located in any suitable combination of
8 modules and components of the network 100.

9 The client 102 preferably communicates with the metadata server 125 to request
10 retrieval of the file 310 from the SAN 130. Hence, the client 102 may be provided with a file
11 request transmission module 400 configured to transmit a metadata request 420 to the
12 metadata server 125. According to one embodiment, the metadata request 420 is received
13 from the client 102 in a universal format, such as a text file, readable by the metadata server
14 125. Preferably, the communication between the clients 102-108 and the metadata server
15 125 are conducted using a text file format that is readily understood regardless of operating
16 system. Nevertheless, in some embodiments, other communication protocols may be used
17 that make translation necessary. Accordingly, a translation module 330 may be supplied to
18 translate the metadata request 420 into a translated metadata request 440.

19 A metadata retrieval module 450 receives the metadata request 420 or 440 and
20 retrieves the file metadata 360 for the requested file 310 from the metadata disk pool 140.
21 The file metadata 360 in one embodiment includes the storage pool designation 362, which
22 in this embodiment is used by the file request transmission module 400 to transmit a file
23 request 460 to the SAN 130. The file 310 is located and retrieved from the designated
24 storage pool 150, 152, or 154. As mentioned previously, the file 310 may be stored on
25 multiple physical drives within a storage pool 150, 152, or 154, and may thus be
26 simultaneously retrieved from multiple physical drives to expedite retrieval.

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1 The client 102 receives the file 310 as well as the service class designation 364 from
2 the file metadata 360. The client 102 may then “enforce” the service class designation 364
3 during file access by allocating the proper proportion of resources of the client 102 and/or
4 other parts of the network 100 for operations involving the file 310. The client 102 may have
5 a file usage module 470 that performs this function.

6 The file usage module 470 is, in one embodiment, provided with a RAM allocation
7 module 472 that is configured to determine and sets aside the appropriate amount of random
8 access memory for operations involving the file 310. Similarly, a cache allocation module
9 474 is preferably provided and configured to determine and set aside the appropriate amount
10 of caching space for operations involving the file 310. By the same token, an I/O allocation
11 module 476 is preferably provided and configured to set aside the desired input/output
12 bandwidth for transfers involving the file 310. If desired, processor power or other resources
13 of the client 102 may be allocated in a similar manner.

14 The file usage module 470 in one embodiment is configured to communicate with
15 subsystems of the client 102 to allocate resources. For example, the client 102 may include
16 devices such as one or more FC, SSA, or iSCSI controllers, which may be configured to
17 receive instructions regarding I/O bandwidth allocation. The I/O allocation module 476 thus
18 allocates I/O bandwidth by sending corresponding instructions to the controller(s).

19 The service class 364 may also be conveyed to clients that are not directly connected
20 to the LAN 110, such as workstations connected to the client 102. The service class 364 may
21 thus be used to control resource allocation for a variety of devices not shown in Figure 1. In
22 addition, the SAN 130 may have components such as switches that are designed to receive
23 and utilize service class information for prioritization; hence, the service class 364 may also
24 be conveyed to the SAN 130 itself for further implementation.

25 According to one alternative embodiment of the invention, the network 100 may be
26 configured in such a manner that the clients 102, 104, 106, 108 are only able to communicate
27 with the SAN 130 through the metadata server 125. Thus, a file 310 to be stored may be

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1 transmitted, in its entirety, to the metadata server 125, which then assigns one or more
 2 storage pools 150, 152, and/or 154 and a service class 280, 282, 284, 286 as in Figure 3. The
 3 metadata server 125 then transmits the file 310 to the appropriate storage pool(s) 150, 152,
 4 and/or 154. Similarly, in order to retrieve the file 310, the client 102 may transmit the
 5 metadata request 420 and the file request 460 to the metadata server 125, which retrieves the
 6 file metadata 360, including the storage pool designation 362, and retrieves the file 310 from
 7 the appropriate storage pool(s) 150, 152, and/or 154.

8 Storage of the file metadata 360 enables retrieval of the file 310 from the appropriate
 9 storage pool(s) 150, 152, or 154 and application of the service class designation 364. The
 10 file metadata 360 may be stored according to a variety of schemes, one of which will be
 11 shown and described in connection with Figure 5.

12 Referring to Figure 5, a schematic block diagram is shown illustrating one
 13 embodiment of a database 500 that may be stored in the metadata disk pool 140. The
 14 database 500 is presented in one embodiment in the form of a lookup table. Preferably, the
 15 database 500 is implemented in a form having a binding arrangement between filenames and
 16 the corresponding file metadata.

17 As shown, the database 500 contains a first filename 510, which is the name of the
 18 file 310 in Figures 3 and 4. Consequently, the file metadata 360 of Figures 3 and 4 is
 19 associated with the first filename 510. A second filename 520 has associated file metadata
 20 530, and an nth filename 540 has associated file metadata 550. Additional sets of filenames
 21 and file metadata may exist in the database 500 between the second filename 520 with its
 22 corresponding metadata 530, and the nth filename 540, with its corresponding metadata 550.

23 The filenames 510, 520, 540 may be sorted alphabetically or in any other manner known to
 24 the metadata server 125.

25 Files may be stored, classified, retrieved, and used according to various suitable
 26 methods. One example of a suitable method of storage and classification will be shown and
 27

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described in connection with Figures 6, 7, and 8. An example of a suitable method of retrieval and usage will be shown and described in connection with Figure 9.

Referring to Figure 6, a schematic flowchart diagram is shown depicting one embodiment of a method 600 for storing and classifying a file in a network. The method 600 will be described in connection with the components of the network 100, and with the executable modules and data structures of Figure 3. However, the method 600 may be used with many alternative network configurations. Additionally, the method of Figure 6 is only an example; numerous variations exist within the scope of the invention.

The method 600 starts 610 and proceeds with providing 620 the policy set 210. This may be done by a system administrator of the network 100, or simply an administrator of the SAN 130. The system administrator may, for example, select the policy set 210 from a number of policy sets, or may manually define the rules to formulate the policy set 210. Generally, only a single policy set 210 is active at a time, but the policy set 210 may be changed based on the changing needs caused by business rules and cycles, as described previously.

File attributes 340 of the file 310 may then be received 630 from the client 102. The file attributes 320 may be received by the translation module 330 of the metadata server 125, as depicted in Figure 3.

After the file attributes 340 have been obtained, a service class 280, 282, 284, or 286 is selected 650 for the file 310. This may be performed by the service class selection module 352 of the file evaluation module 350. Similarly, one or more of the storage pool(s) 150, 152, and/or 154 may be selected 660 for the file 310 by the storage pool selection module 354 of the file evaluation module 350.

After the service class 280, 282, 284, or 286 and the storage pool 150, 152, and/or 154 have been selected 650, 660, the storage pool designation 362 and the service class designation 364 are preferably added 670 to the file attributes 340 to provide the file metadata 360. The file metadata 360 may be stored 680 in the metadata disk pool 140. The

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1 file 310 may be stored 690 in the storage pool(s) 150, 152, and/or 154, at the location
2 directed by the storage pool designation 362. The method 600 may then end 695.

3 Selection 650 of the service class 280, 282, 284, or 286 and selection of the storage
4 pool(s) 150, 152, and/or 154 may each involve several steps. These will be shown and
5 described in greater detail in connection with Figures 7 and 8.

6 Referring to Figure 7, a schematic flow chart diagram is shown illustrating one
7 example of a method by which selection 650 of the service class 280, 282, 284, or 286 may
8 be accomplished through the use of the policy set 210. The selection method 650 starts 710
9 and then proceeds to determine 720 whether the file 310, or more precisely, the file attributes
10 340, satisfy the first rule 240 of the service class policy 220. If the first rule 240 is satisfied,
11 the service class 280, 282, 284, or 286 dictated by the first rule 240 is assigned 730 to the file
12 310.

13 If the first rule 240 is not satisfied, the selection method 650 then determines 740
14 whether the file attributes 340 satisfy the second rule 242 of the service class policy 220. If
15 the second rule 242 is satisfied, the service class 280, 282, 284, or 286 dictated by the second
16 rule 242 is assigned 750 to the file 310.

17 If the second rule 242 is not satisfied, the selection method 650 applies the remaining
18 rules between the second rule 242 and the nth rule 244 (indicated by the broken arrow) in
19 Figure 7. If none of these rules are satisfied, the selection method 650 determines 760
20 whether the nth rule 244 of the service class policy 220 is satisfied by the file attributes 340.
21 If the nth rule 244 is satisfied, the service class 280, 282, 284, or 286 dictated by the nth rule
22 244 is assigned 770 to the file 310.

23 If the nth rule 244 is not satisfied, the selection method 650 assigns a default service
24 class 280, 282, 284, or 286 to the file 310. Since such a case indicates that the service class
25 policy 220 has no rule to accommodate the file 310, a record of assignment of the default
26 service class 280, 282, 284, or 286 may be kept in a system log, which may be maintained
27 within the metadata server 125 or, for example, in the metadata disk pool 140. An

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1 administrator may periodically review the log to determine whether new rules need to be
2 added to the service class policy 220 to enable proper handling of files of a type similar to
3 that of the file 310. As soon as a service class 280, 282, 284, or 286 is assigned to the file
4 310, the selection method 650 terminates 790.

5 Referring to Figure 8, a schematic flow chart diagram is shown illustrating one
6 example of a method by which selection 660 of the storage pool(s) 150, 152, and/or 154 may
7 be accomplished through the use of the policy set 210. The selection method 660 generally
8 parallels the selection method 650. The selection method 660 starts 810 and proceeds to
9 determine 820 whether the file 310, or more precisely, the file attributes 340, satisfy the first
10 rule 250 of the storage policy 230. If the first rule 250 is satisfied, the storage pool(s) 150,
11 152, and/or 154 dictated by the first rule 250 are assigned 830 to the file 310.

12 If the first rule 250 is not satisfied, the selection method 660 then determines 840
13 whether the file attributes 340 satisfy the second rule 252 of the storage policy 230. If the
14 second rule 252 is satisfied, the storage pool(s) 150, 152, and/or 154 dictated by the second
15 rule 252 are assigned 850 to the file 310.

16 If the second rule 252 is not satisfied, the selection method 660 applies the remaining
17 rules between the second rule 252 and the nth rule 254 (indicated by the broken arrow) in
18 Figure 8. If none of these rules are satisfied, the selection method 660 determines 860
19 whether the nth rule 254 of the storage policy 230 is satisfied by the file attributes 340. If the
20 nth rule 254 is satisfied, the storage pool(s) 150, 152, and/or 154 dictated by the nth rule 254
21 is assigned 870 to the file 310.

22 If the nth rule 254 is not satisfied, the selection method 660 assigns one or more
23 default storage pools 150, 152, and/or 154 to the file 310. As with the selection method 650,
24 a record of assignment of the default storage pool(s) 150, 152, and/or 154 may be kept in the
25 system log. An administrator may periodically review the log to determine whether new
26 rules need to be added to the storage policy 230 to enable proper handling of files of a type
27

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1 similar to that of the file 310. As soon as one or more storage pools 150, 152, and/or 154 are
2 assigned to the file 310, the selection method 660 terminates 890.

3 The methods 650, 660 depicted in Figures 7 and 8 are based on sequential
4 progression through the rules 240, 242, 244, 250, 252, 254. However, in alternative
5 embodiments, different rule analysis methods may be used. For example, a weighting
6 system may be used to assign weights to various rules. A file may then be given one or more
7 scores based on its adherence to the rules, and assigned a service class based on the scores.
8 Thus, the service class 280, 282, 284, or 286 and storage pool(s) 150, 152, and/or 154 may
9 be more intelligently assigned.

10 Referring to Figure 9, a schematic flowchart diagram is shown depicting one
11 embodiment of a method 900 for retrieving and using a file stored in a network. The method
12 900 will be described in connection with the components of the network 100, and with the
13 executable modules and data structures of Figure 4. However, the method 900 may be used
14 with many alternative network configurations. Additionally, the method of Figure 9 is only
15 an example; numerous variations exist within the scope of the invention.

16 The method 900 starts 610 and proceeds to receive 920 a metadata request 420. As
17 depicted in Figure 4, the metadata request 420 may be generated by the client 102 and may
18 be received by the metadata server 125. The metadata request 420 may be translated 930 by
19 the translation module 330 to provide the translated metadata request 440 that identifies the
20 requested file 310 in a manner usable by the metadata server 125. This step may also be
21 performed by the client 102, or may not need to be performed, depending on the types of
22 computing platforms that are in use within the network 100.

23 After the requested file 310 has been identified, the file metadata 360 corresponding
24 to the file 310 is in the depicted embodiment retrieved 940 by the metadata retrieval module
25 450. Retrieval 940 of the metadata 360 may be performed by locating the filename of the
26 requested file 310 within the database 500 stored on the metadata disk pool 140, and then
27 reading the corresponding metadata.

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1 The requested file 310 is then preferably retrieved 950 from the storage pool(s) 150,
2 152, 154 in which the file 310 is stored. Retrieval 950 may be performed by receiving the
3 storage pool designation 362 from the file metadata 360 and reading the file 310 from the
4 corresponding location within the assigned storage pool(s) 150, 152, and/or 154. As
5 mentioned previously, if the file 310 is stored on more than one physical drive of a storage
6 pool 150, 152, or 154, different portions of the file 310 may be simultaneously retrieved from
7 the storage pool 150, 152, or 154 containing the file 310. The file 310, along with the service
8 class designation 364, may then be returned to the client 102.

9 The client 102 may use 960 the metadata 360 to control the manner in which the file
10 310 is handled. More precisely, the file usage module 470 of the client 102 receives the file
11 310 and the service class designation 364 and allocates the necessary resources for further
12 operations with the file 310. Usage 960 may include allocating memory with the RAM
13 allocation module 472, allocating caching capacity with the cache allocation module 474,
14 and allocating I/O bandwidth with the I/O allocation module 476. Additionally, usage 960
15 may entail the variation of a host of other parameters in accordance with the service class
16 designation 364.

17 The present invention may be embodied in other specific forms without departing
18 from its spirit or essential characteristics. The described embodiments are to be considered
19 in all respects only as illustrative and not restrictive. The scope of the invention is, therefore,
20 indicated by the appended claims rather than by the foregoing description. All changes
21 which come within the meaning and range of equivalency of the claims are to be embraced
22 within their scope.

23 What is claimed is:
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1. A policy-based data management system comprising:
 - a policy set comprising at least one service class rule;
 - a file evaluation module configured to apply the service class rule to assign a service class to a file;
 - a file usage module configured to conduct operations on the file in a manner directed by the service class; and
 - a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms.

2. The policy-based data management system of claim 1, wherein the file evaluation module is further configured to automatically assign the file to a storage pool.

3. The policy-based data management system of claim 1, wherein the file evaluation module is configured to assign the storage pool to the file based on the service class.

4. The policy-based data management system of claim 2, wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file.

5. The policy-based data management system of claim 2, wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool.

6. The policy-based data management system of claim 1, wherein the file usage module is configured to establish at least one of the group consisting of input/output speed,

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1 random access memory allocation, performance priority, and cache allocation scheme, based
2 on the service class.
3

4 7. The policy-based data management system of claim 1, further comprising a file
5 transmission module configured to provide one or more attributes of the file to the file
6 evaluation module, which is configured to apply the service class rule to the one or more
7 attributes to determine the service class.
8

9 8. The policy-based data management system of claim 1, wherein the at least two
10 different computing platforms are selected from the group consisting of Windows, AIX,
11 Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390.
12

13 9. A metadata server for carrying out policy-based management, the metadata server
14 comprising:

- 15 a processor; and
- 16 a memory configured to store computer code comprising:
 - 17 a policy set comprising at least one service class rule;
 - 18 a file evaluation module configured to apply the service class rule to assign a
 - 19 service class to a file; and
 - 20 a communication module operable to communicate between the file evaluation
 - 21 module and a plurality of remote clients and configured to communicate with clients
 - 22 of varying computing platforms.

23
24 10. The metadata server of claim 9, wherein the file evaluation module is further
25 configured to automatically assign the file to a storage pool.
26
27

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1 11. The metadata server of claim 9, further comprising a network interface
2 configured to communicate with a client to transmit a service class to the client to control
3 handling of the file based on the service class.

4
5 12. A client for carrying out policy-based management, comprising:
6 a processor;
7 a network interface configured to communicate with a metadata server having a
8 policy set comprising at least one service class rule and a file evaluation module configured
9 to apply the service class rule to assign a service class to a file; and
10 a memory configured to store computer code comprising a file request transmission
11 module configured to request receipt of the file from a storage pool; and
12 a file usage module configured to control handling of the file based on the
13 service class.

14
15 13. The client of claim 12, wherein the memory further comprises a file request
16 transmission module configured to transmit attributes of the one file to the metadata server so
17 that the metadata server can apply the service class rule to the attributes in assigning a
18 service class to the file.

19
20 14. The client of claim 12, wherein the file usage module is configured to select at
21 least one of the group consisting of input/output speed, random access memory allocation,
22 performance priority, and cache allocation scheme of the client for a file based on the service
23 class assigned to the file.

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1 15. A method for handling files within a policy-based data management system, the
2 method comprising:
3 providing a policy set comprising at least one service class rule;
4 receiving one or more attributes of a file from one of a plurality of clients, the clients
5 comprising at least two different computing platforms;
6 applying the service class rule to the file to assign a service class to the file; and
7 conducting operations on the file in a manner according to the service class.
8

9 16. The method of claim 15, further comprising assigning a storage pool to the file.
10

11 17. The method of claim 16, wherein assigning the storage pool to the file comprises
12 assigning the storage pool to the file based on the at least one service class.
13

14 18. The method of claim 16, wherein the policy set further comprises at least one
15 storage pool rule, wherein assigning the storage pool to the file comprises applying the
16 storage pool rule to the characteristics of the available storage pools to assign the storage
17 pool to the file.
18

19 19. The method of claim 16, wherein assigning the storage pool to the file comprises
20 selecting the storage pool from a group of storage pools of the open systems environment,
21 the group of storage pools each comprising at least two different disaster recoverability
22 levels.
23

24 20. The method of claim 15, wherein controlling handling of the file based on the
25 service class comprises taking action on at least one of the group consisting of input/output
26 speed, random access memory allocation, performance priority, and cache allocation scheme,
27 in a manner in accordance with the service class.

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21. The method of claim 15, wherein the service class rule is applied to the one or more file attributes to select the service class.

22. The method of claim 15, wherein the computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390, wherein the method further comprises translating the one or more attributes.

23. A computer readable medium comprising computer code configured to carry out a method comprising:
providing a policy set comprising at least one service class rule;
receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms;
applying the service class rule to the file to assign a service class to the file; and
conducting operations on the file in a manner according to the service class.

24. The computer readable medium of claim 23, wherein the computer code is further configured to assign a storage pool to the file.

25. The computer readable medium of claim 23, wherein the service class rule bases selection of the service class on the one or more file attributes.

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26. A policy-based data management system for an open systems environment, the system comprising:
at least one service class rule;
means for applying the service class rule to assign a service class to a file;
means for controlling handling of the file based on the service class;
means for communicating with a plurality of clients comprising at least two different computing platforms.

27. The policy-based data management system of claim 26, further comprising means for assigning a storage pool to the file based on attributes of the file.

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**SYSTEM, METHOD, AND APPARATUS FOR
POLICY-BASED DATA MANAGEMENT**

ABSTRACT OF THE INVENTION

A policy-based data management system, method, and apparatus are disclosed. The system, method, and apparatus are configured to operate over a distributed storage system such as a storage area network (SAN). Files to be stored on the network are each assigned a service class and a storage pool based on the application of policies to file attributes such as file name, type, user, etc. The service class and storage pool designations are stored as metadata. Files may be retrieved using the metadata to identify the storage pool where the file is stored, and the service class listed within the metadata may be used to control the manner in which the file is handled. A metadata server may be utilized to provide the appropriate service class of files in response to requests from remote clients that may be of different computing platforms.

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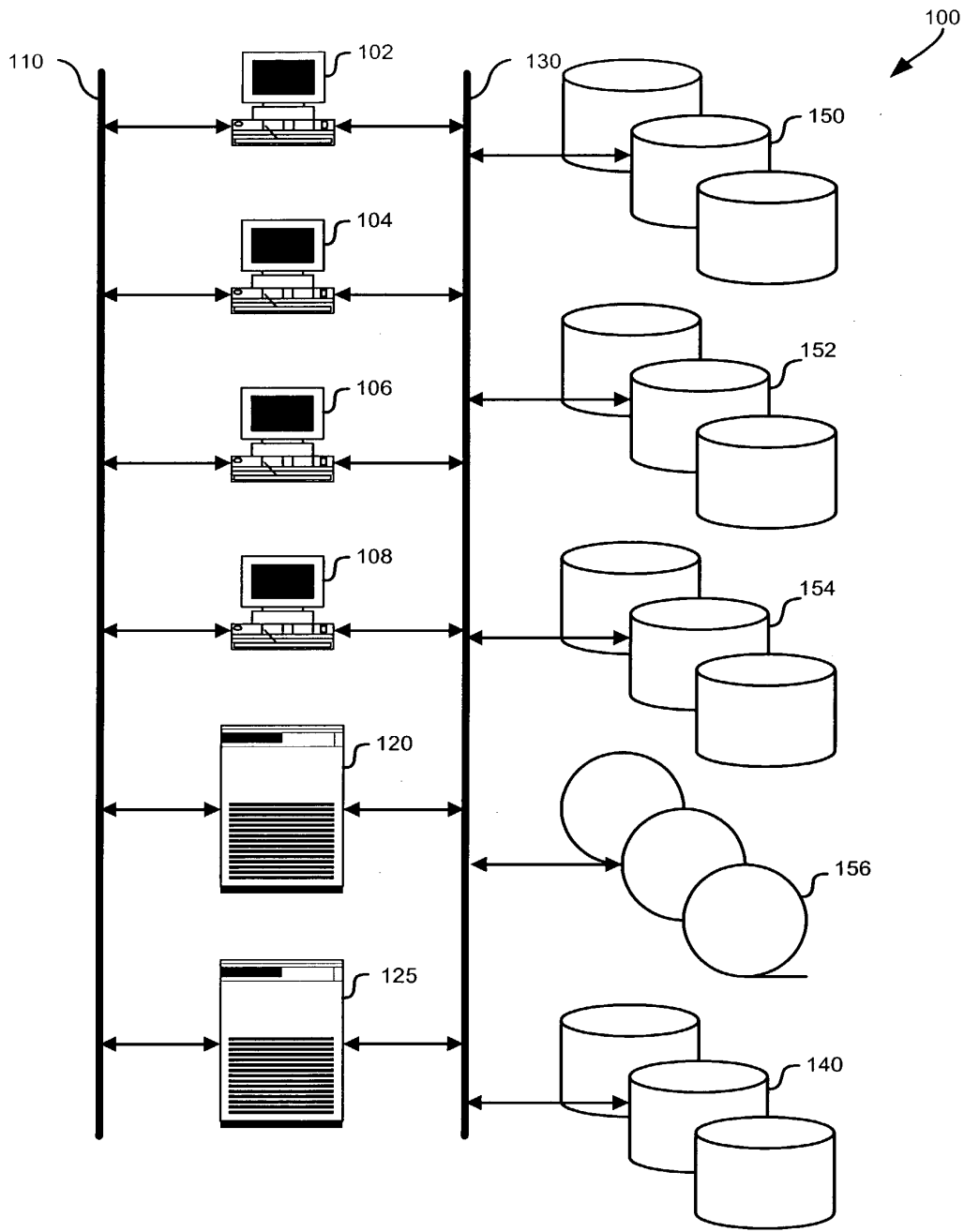


Fig. 1

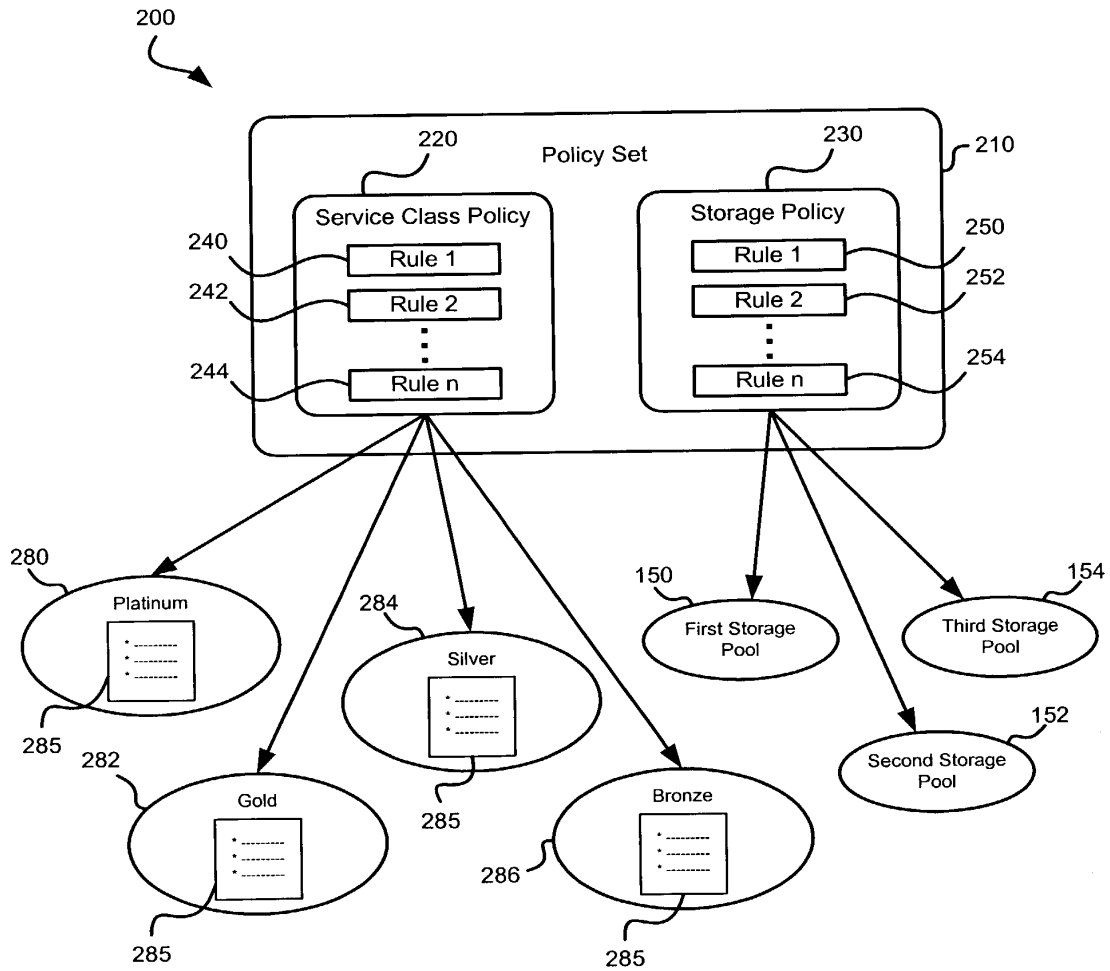


Fig. 2

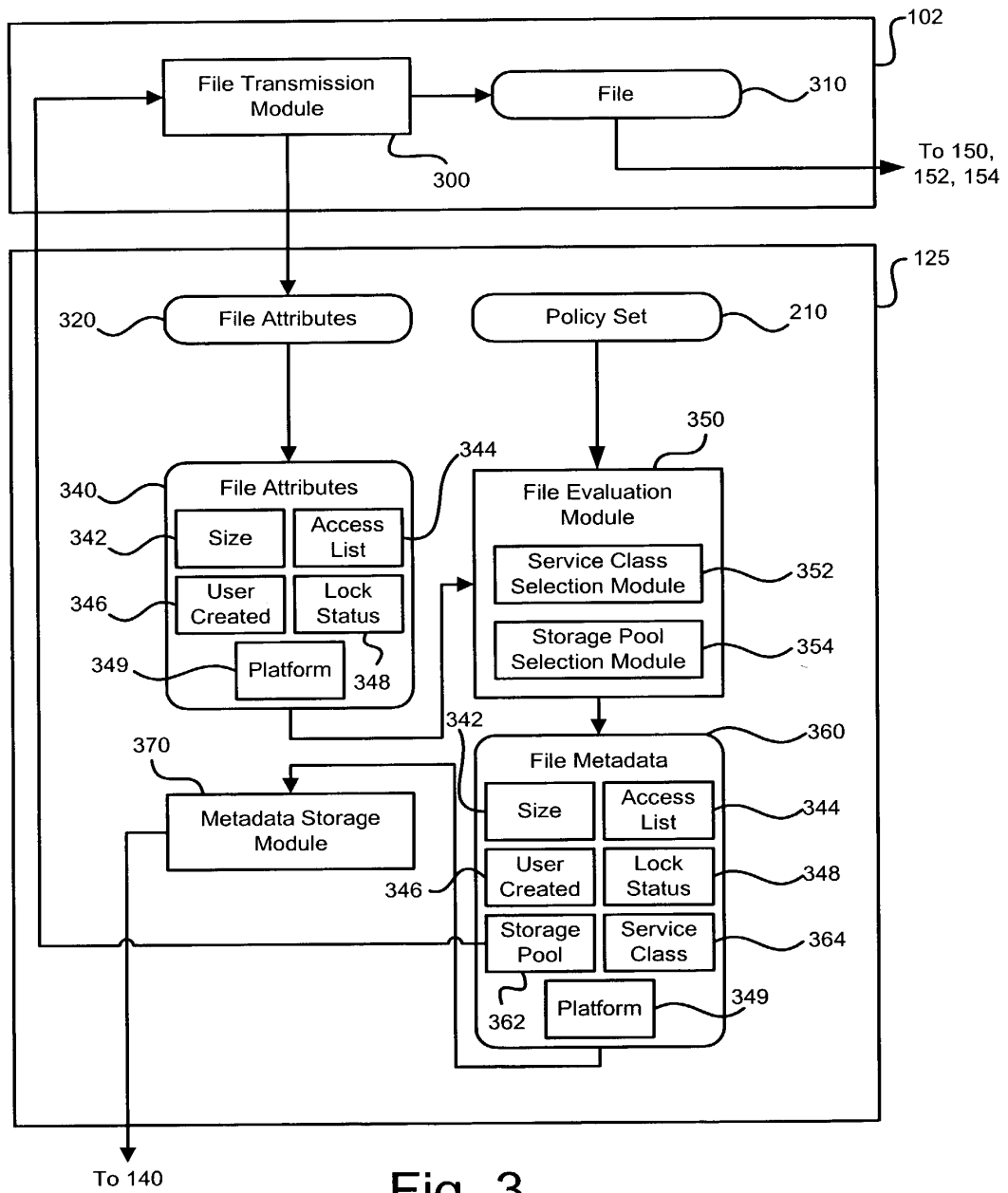


Fig. 3

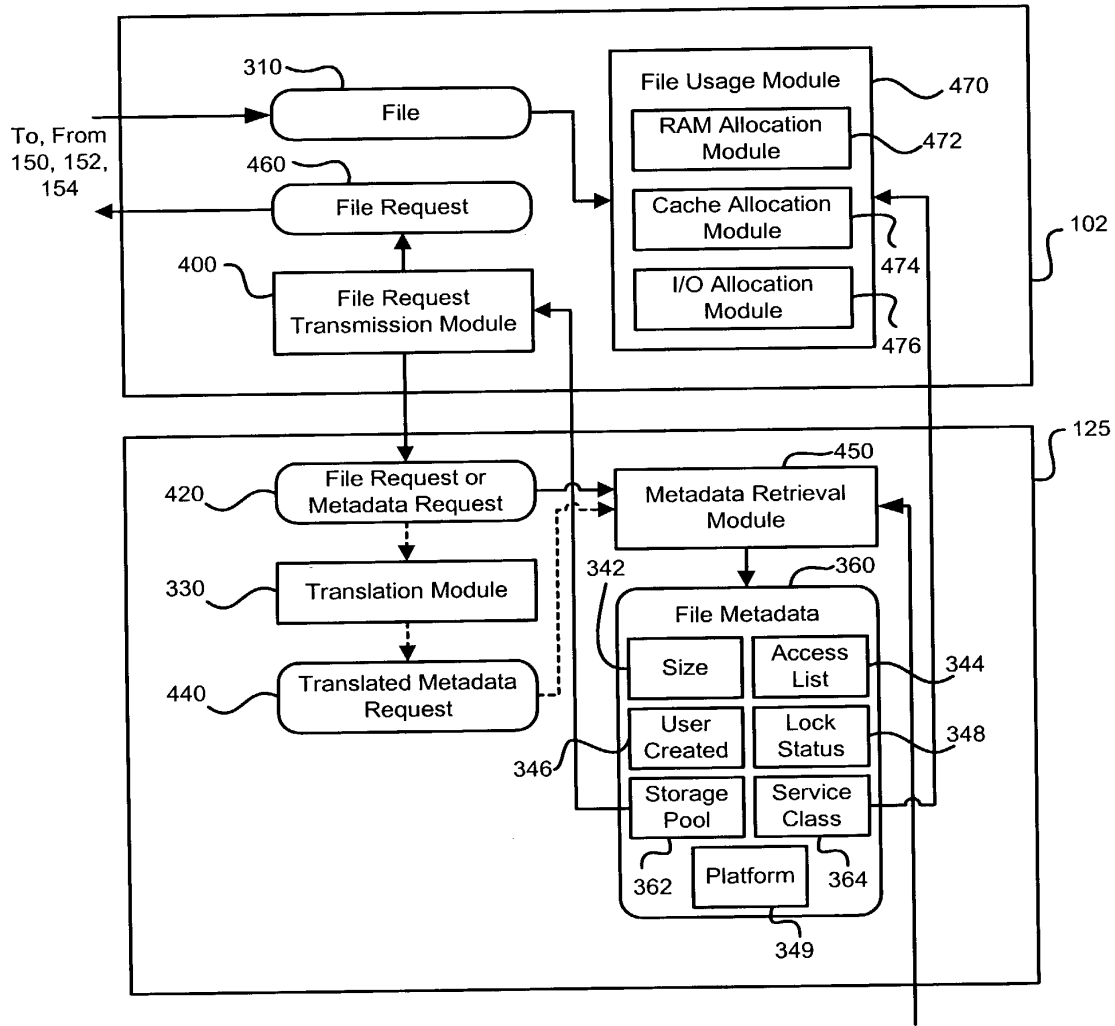


Fig. 4

From 140

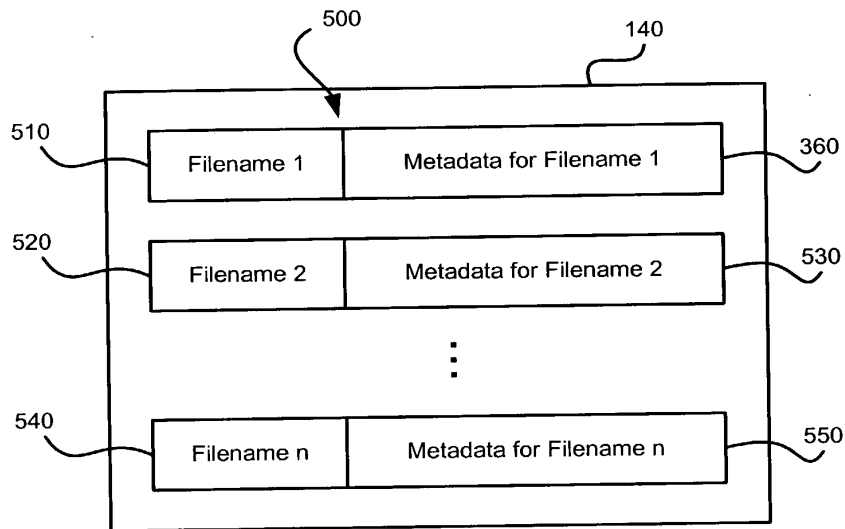


Fig. 5

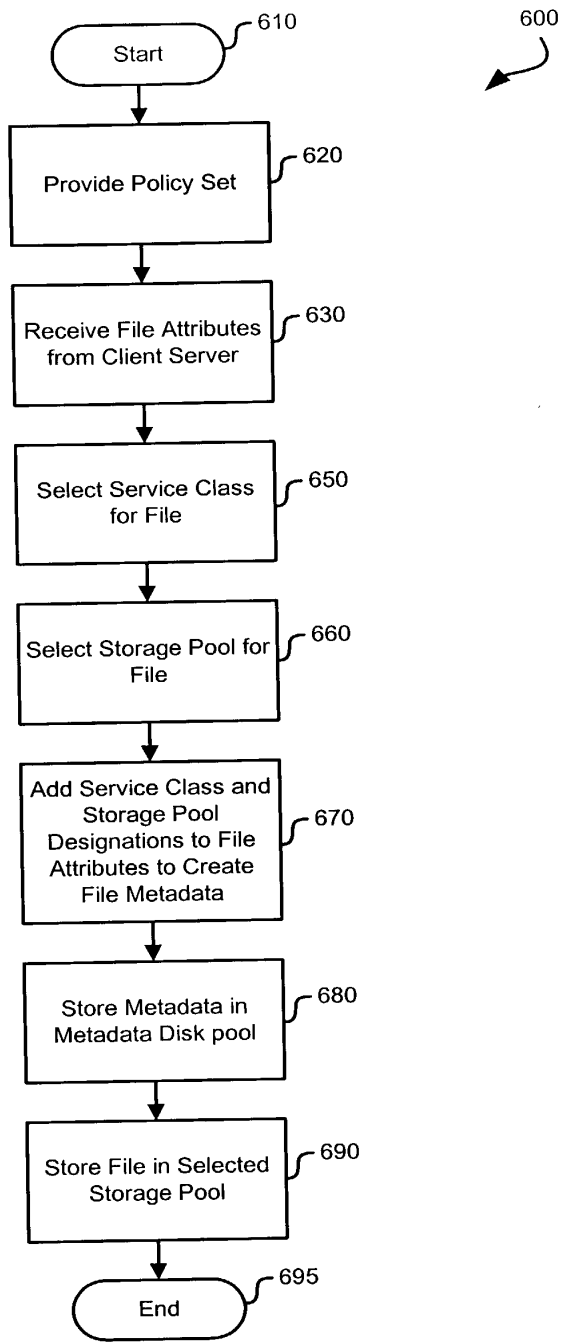


Fig. 6

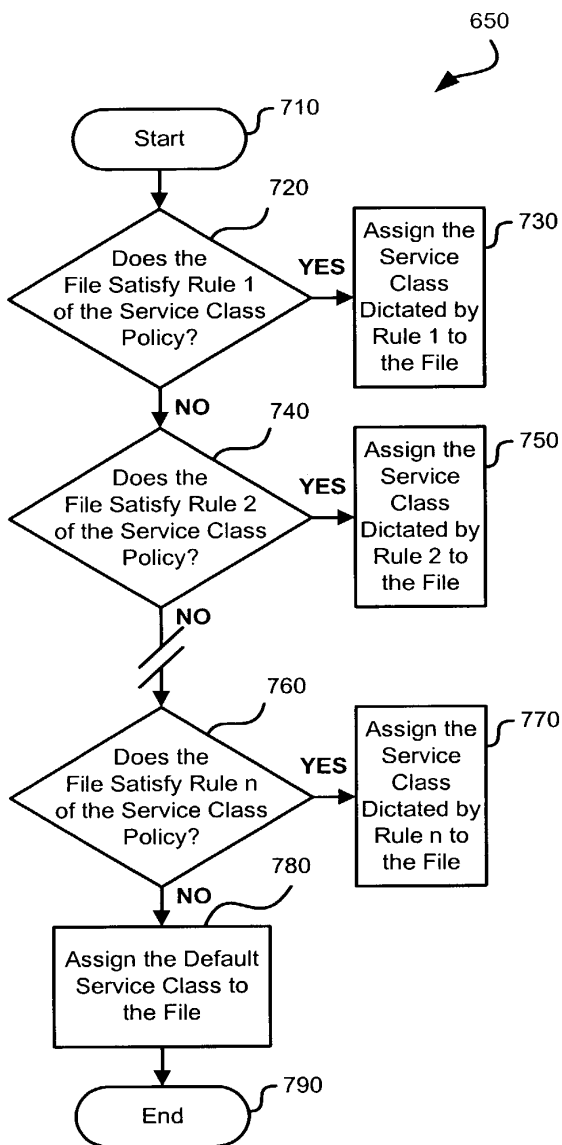


Fig. 7

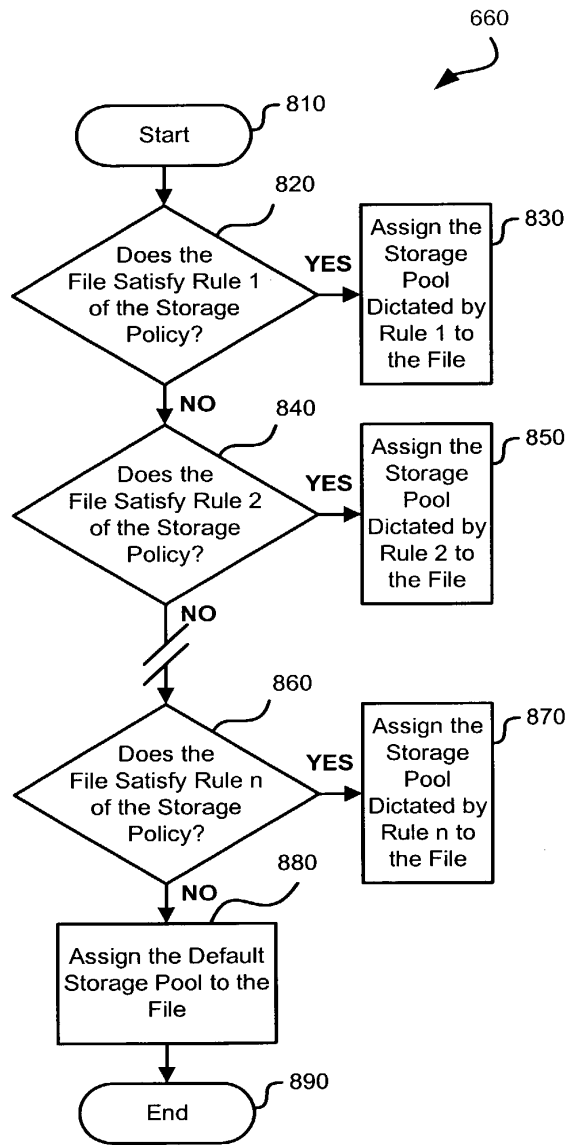


Fig. 8

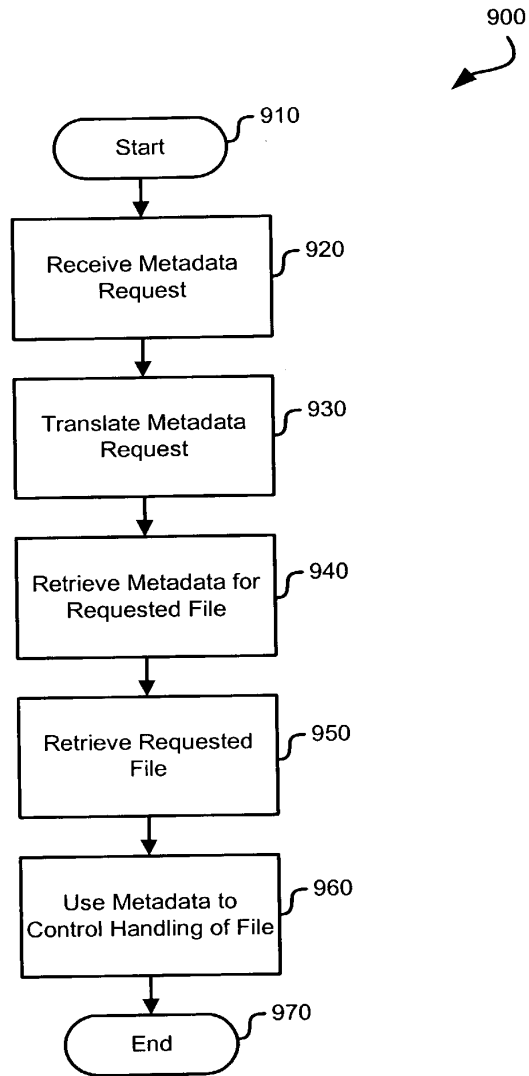


Fig. 9

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence and citizenship are as stated below next to my name;

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

the specification of which (check one)

X is attached hereto.
_____ was filed on _____
as Application Serial No. _____
and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed
<u> none </u>	_____	_____	<u> </u> Yes <u> </u> No
(Number)	(Country)	(Day/Month/Year filed)	

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u> none </u>	_____	_____
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

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.



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Post Office Address: Same

Full name of fourth joint-inventor: **David Ronald Nowlen**

Inventor's signature: *David Ronald Nowlen* Date: *3/27/03*

DN 18360 SAN ANTONIO
Residence: **18395 ~~Murphy Springs~~ Drive, Morgan Hill, California 95037**

Citizenship: **United States of America**

Post Office Address: Same

Full name of fifth joint-inventor: **David Allan Pease**

Inventor's signature: *David Allan Pease* Date: *2-21-03*

Residence: **21492 Mary Alice Way, Redwood Estates, California 95044**

Citizenship: **United States of America**

Post Office Address: P.O. Box 572, Redwood Estates, California 95044

Full name of sixth joint-inventor: **Michael Leo Walker**

Inventor's signature: *Michael Walker* Date: *3/11/2003*

Residence: **4100 The Woods Drive Apt. 810, San Jose, California 95136**

Citizenship: **United States of America**

Post Office Address: Same

F:\FILES\Brian\Client Files\1200 SanJose\1260\1260-Dec-Power .wpd

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

03/21/2003 HDEMESS1 00000007 090466 10389408

01 FC:1001	750.00 CH
02 FC:1201	252.00 CH
03 FC:1202	126.00 CH

PTO-1556
(5/87)

*U.S. Government Printing Office: 2001 — 481-697/59173

PATENT APPLICATION FEE DETERMINATION RECORD
Effective January 1, 2003

Application or Docket Number

10389408

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	<i>27</i>	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	<i>27</i> minus 20 = *	<i>7</i>
INDEPENDENT CLAIMS	<i>6</i> minus 3 = *	<i>3</i>
MULTIPLE DEPENDENT CLAIM PRESENT		<input type="checkbox"/>

SMALL ENTITY TYPE OR

OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	375.00
X\$ 9=	
X42=	
+140=	
TOTAL	

RATE	FEE
BASIC FEE	750.00
X\$18=	<i>126.00</i>
X84=	<i>252.00</i>
+280=	
TOTAL	<i>1128.00</i>

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total	* Minus **	=
	Independent	* Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>		

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total	* Minus **	=
	Independent	* Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>		

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total	* Minus **	=
	Independent	* Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>		

RATE	ADDITIONAL FEE
X\$ 9=	
X42=	
+140=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X84=	
+280=	
TOTAL ADDIT. 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.

CLAIMS ONLY							SERIAL NO.	FILING DATE					
							APPLICANT(S)						
CLAIMS													
	AS FILED		AFTER 1ST AMENDMENT		AFTER 2ND AMENDMENT								
	IND	DEP	IND	DEP	IND	DEP							IND
1	/						51						
2		/					52						
3		/					53						
4		/					54						
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47							97						
48							98						
49							99						
50							100						
TOTAL IND.	6						TOTAL IND.						
TOTAL DEP.	21						TOTAL DEP.						
TOTAL CLAIMS	27						TOTAL CLAIMS						

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 13, 2003.


Attorney for Applicant(s)

PATENT APPLICATION
Docket No.: SJO920020041US1

JC685 U.S. PTO
10/389408

03/14/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): James V. Carlson et al.)
Serial No.: Not yet assigned)
Filing Date: March 14, 2003) Group Art
For: System, Method, and Apparatus For Policy-Based) Unit:
Data Management)



INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

This Information Disclosure Statement discloses information which has come to the attention of applicant and his attorneys and is being submitted so as to comply with the duty of disclosure set forth in 37 C.F.R. § 1.56. In accordance with 37 C.F.R. § 1.97(b), this Statement is being filed within three (3) months of the filing date of the above-identified application or before the mailing date of a first Action on the merits.

Neither applicant nor his attorneys make any representation that any information disclosed herein may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103. Moreover, pursuant to 37 C.F.R. § 1.97, the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made or as an admission that the

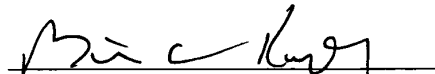
information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

In accordance with 37 C.F.R. § 1.98, this Information Disclosure Statement includes and is accompanied by:

1. A completed copy of Form PTO-1449 listing the patents, publications and other information being submitted for consideration; and
2. A legible copy of each patent, publication and other item of information in written form listed on the enclosed Form PTO-1449.

NON-ENGLISH INFORMATION

Pursuant to 37 C.F.R. § 1.98, following is a concise explanation of the relevance (as it is presently understood by the individual designated in 37 C.F.R. § 1.56(c) most knowledgeable about the content of the information), of each listed patent, publication or other information that is not in the English language. Respectfully submitted,

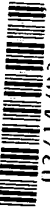

Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

Date: March 14, 2003

Brian C. Kunzler
10 West 100 South, Suite 425
Salt Lake City, Utah 84101
Telephone: 801/994-4646

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)	SERIAL NO. Not yet assigned	ATTORNEY DOCKET NO. SJO920020041US1
	FILING DATE March 14, 2003	GROUP ART UNIT
	APPLICANT(S): James V. Carlson et al.	

JC685 U.S. PTO
10/389408
03/14/03



REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/SUBCLASS	FILING DATE
	A1	4,755,928	07/05/1988	Johnson et al.	364/200	03/05/1984
	A2	6,154,776	11/28/2000	Martin	709/226	03/20/1998
	A3	6,167,445	12/26/2000	Gai et al.	709/223	10/26/1998
	A4	6,212,562 B1	04/03/2001	Huang	709/227	03/28/1997

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/SUBCLASS	TRANSLATION	
						YES	NO

NON-PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)

EXAMINER	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(s).



10/389408

10/389408

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

APPLICANT(S):	JIM CARLSON ET AL. ✓	RECEIVED
SERIAL No.:	(NOT YET ASSIGNED)	MAY 20 2003
FILING DATE:	MARCH 14, 2003	Technology Center 2100
TITLE:	SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT	
GROUP ART :		
ATTY. DKT. No.:	SJO920020041US1 ✓	

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231, on the date shown below:

Dated: 4/30/03 By: *Brian C. Kunzler*
 Brian C. Kunzler, Reg. No.: 38, 527

ASSISTANT COMMISSIONER FOR PATENTS
 APPLICATION PROCESSING DIVISION
 CUSTOMER CORRECTION BRANCH
 WASHINGTON, DC. 20231

REQUEST TO CORRECT THE INVENTORSHIP

DEAR SIR:

Please add Paul Harold Hilton as an inventor for the above application. A true statement from the inventor as well as a signed Declaration and Power of Attorney, an Assignment, and a processing fee sheet are enclosed.

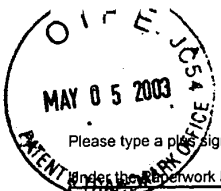
Respectfully submitted,
BRIAN C. KUNZLER

Brian C. Kunzler

Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

05/19/2003 DTESSEM1 00000122 090466 10389408
01 FC:1460 130.00 CH

Date: April 30, 2003
Brian C. Kunzler
10 West 100 South, Suite 425
Salt Lake City, Utah 84101
Telephone: 801/994-4646



Please type a plus sign (+) inside this box

Approved for use through 9/30/03. OMB 0651-0032
 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
 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.

<h1 style="margin: 0;">FEE TRANSMITTAL</h1> <p style="font-size: small; margin-top: 10px;">Note: Effective October 1, 2001. Patent fees are subject to annual revision.</p>		Complete If Known	
		Application Number	Not yet assigned
		Filing Date	March 14, 2003
		First Named Inventor	James V. Carlson RECEIVED
		Group Art Unit	
		Examiner Name	MAY 20 2003
TOTAL AMOUNT OF PAYMENT	\$ 170	Attorney Docket Number	SJO920020041US1

Technology Center 2100

<p>METHOD OF PAYMENT (check one)</p> <p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number: <u>09-0466</u></p> <p>Deposit Account Name: <u>IBM CORPORATION</u></p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Charge the Issue Fee In 37 CFR at the Mailing of the Notice of Allowance</p> <p>2. <input type="checkbox"/> Payment Enclosed:</p> <p style="padding-left: 20px;"><input type="checkbox"/> Check <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p> <hr/> <p style="text-align: center; font-weight: bold;">FEE CALCULATION</p> <p>1. FILING FEE</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1001</td><td>750</td><td>2001</td><td>375</td><td>Utility filing fee</td><td></td></tr> <tr><td>1002</td><td>330</td><td>2002</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>520</td><td>2003</td><td>260</td><td>Plant filing fee</td><td></td></tr> <tr><td>1004</td><td>750</td><td>2004</td><td>375</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (1)</td><td style="text-align: center; border: 1px solid black;">\$ 0</td></tr> </tbody> </table> <p>2. CLAIMS</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total Claims</th> <th>Extra</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td><input type="text" value="0"/> -20 =</td> <td><input type="text" value="0"/></td> <td>x <input type="text" value="18"/></td> <td>= <input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> -3 =</td> <td><input type="text" value="0"/></td> <td>x <input type="text" value="84"/></td> <td>= <input type="text" value="0"/></td> </tr> <tr> <td>Multiple Dep. Claims</td> <td><input type="text" value="0"/></td> <td>x <input type="text" value="280"/></td> <td>= <input type="text" value="0"/></td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>1201</td><td>84</td><td>2201</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>1203</td><td>280</td><td>2203</td><td>140</td><td>Multiple dependent claim</td><td></td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (2)</td><td style="text-align: center; border: 1px solid black;">\$ 0</td></tr> </tbody> </table>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1001	750	2001	375	Utility filing fee		1002	330	2002	165	Design filing fee		1003	520	2003	260	Plant filing fee		1004	750	2004	375	Reissue filing fee		1005	160	2005	80	Provisional filing fee		SUBTOTAL (1)					\$ 0	Total Claims	Extra	Fee from below	Fee Paid	<input type="text" value="0"/> -20 =	<input type="text" value="0"/>	x <input type="text" value="18"/>	= <input type="text" value="0"/>	<input type="text" value="0"/> -3 =	<input type="text" value="0"/>	x <input type="text" value="84"/>	= <input type="text" value="0"/>	Multiple Dep. Claims	<input type="text" value="0"/>	x <input type="text" value="280"/>	= <input type="text" value="0"/>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1202	18	2202	9	Claims in excess of 20		1201	84	2201	42	Independent claims in excess of 3		1203	280	2203	140	Multiple dependent claim		SUBTOTAL (2)					\$ 0	<p>3. ADDITIONAL FEES</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>2053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2520</td><td>1812</td><td>2520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1840*</td><td>1805</td><td>1840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>1970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1510</td><td>1451</td><td>1510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - intentional</td><td></td></tr> <tr><td>1453</td><td>1300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1300</td><td>2501</td><td>650</td><td>Utility issue fee</td><td></td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>630</td><td>2503</td><td>315</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td style="text-align: center; border: 1px solid black;">40</td></tr> <tr><td>1809</td><td>750</td><td>1809</td><td>375</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>750</td><td>2810</td><td>375</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td colspan="5">Other fee (specify) 1808 Processing Fee (1.17(i))</td><td style="text-align: center; border: 1px solid black;">130</td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (3)</td><td style="text-align: center; border: 1px solid black;">\$ 170</td></tr> </tbody> </table> <p style="font-size: x-small;">*Reduced by Basic Filing Fee</p>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		1053	130	2053	130	Non-English specification		1812	2520	1812	2520	For filing a request for reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1840*	1805	1840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1450	2254	725	Extension for reply within fourth month		1255	1970	2255	985	Extension for reply within fifth month		1401	320	2401	160	Notice of Appeal		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1451	1510	1451	1510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - intentional		1453	1300	2453	650	Petition to revive - unintentional		1501	1300	2501	650	Utility issue fee		1502	470	2502	235	Design issue fee		1503	630	2503	315	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40	1809	750	1809	375	Filing a submission after final rejection (37 CFR 1.129(a))		1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))		Other fee (specify) 1808 Processing Fee (1.17(i))					130	SUBTOTAL (3)					\$ 170
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1002	330	2002	165	Design filing fee																																																																																																																																																																																																																																																																															
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1004	750	2004	375	Reissue filing fee																																																																																																																																																																																																																																																																															
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1812	2520	1812	2520	For filing a request for reexamination																																																																																																																																																																																																																																																																															
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																																																																																																															
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1809	750	1809	375	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																																																																																																																															
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																																																																																																																																																															
Other fee (specify) 1808 Processing Fee (1.17(i))					130																																																																																																																																																																																																																																																																														
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SUBMITTED BY				Complete (if applicable)	
Typed or Printed Name	Brian C. Kunzler			Reg. Number	38,527
Signature				Deposit Account User ID	
	Date	Mar 14, 2003			

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



STATEMENT OF INVENTORSHIP

RE: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

Filed: March 14, 2003

Serial No.: (Not yet assigned)

Docket No.: SJO920020041US1

Express Mailing Label No.: EU329839960US

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MAY 20 2003
Technology Center 2100

This is to verify that I, Paul Harold Hilton, am an inventor in the above referenced nonprovisional patent application. My name was omitted from the original Declaration and Power of Attorney as well as from the original Assignment without any deceptive intention on my part. I affirm that the error occurred in good faith, and request that my name be added to the application as a joint inventor.

Date: April 14, 2003



Paul Harold Hilton



DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

I, a below named inventor, I hereby declare that:

My residence and citizenship are as stated below next to my name;

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

the specification of which (check one)

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MAY 20 2003

Technology Center 2100

_____ is attached hereto.

was filed on March 14, 2003

as Application Serial No. _____

and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

none _____
(Number) (Country) (Day/Month/Year filed)

Yes No

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

none _____
(Application Serial No.) (Filing Date) (Status) (patented, pending, abandoned)

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.

POWER OF ATTORNEY: As named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Randall J. Bluestone	40,518	John E. Hoel	26,279
Paik Saber	37,494	Robert B. Martin	26,945
Douglas R. Millett	31,784	Edward A. Pennington	32,588
Abdy Raissinia	38,686	Joseph C. Redmond, Jr.	18,753
Christopher A. Hughes	26,914	Ron Feece	46,327
William D. Gill	44,124	Brian C. Kunzler:	38,527

Send correspondence to:

Brian C. Kunzler
10 West 100 South Suite 425
Salt Lake City, Utah 84101
Telephone: (801) 994-4646

Full name of sole or first joint-inventor: **James Vernon Carlson**

Inventor's signature:

Date:

Residence: **231 Purple Glen Drive, San Jose, California 95119-1533**

Citizenship: **United States of America**

Post Office Address: Same

Full name of second joint-inventor: **Linda Marie Duyanovich**

Inventor's signature:

Date:

Residence: **5056 Woodbrae Ct., Saratoga, California 95070**

Citizenship: **United States of America**

Post Office Address: Same

Full name of third joint-inventor: **Toby Lyn Marek**

Inventor's signature:

Date:

Residence: **3494 Tulane Court, Santa Clara, California 95051**

Citizenship: **United States of America**

Post Office Address: Same

Full name of fourth joint-inventor: **David Ronald Nowlen**

Inventor's signature:

Date:

Residence: **18395 Murphy Springs Drive, Morgan Hill, California 95037**

Citizenship: **United States of America**

Post Office Address: Same

Full name of fifth joint-inventor: **David Allan Pease**

Inventor's signature:

Date:

Residence: **21492 Mary Alice Way, Redwood Estates, California 95044**

Citizenship: **United States of America**

Post Office Address: P.O. Box 572, Redwood Estates, California 95044

Full name of sixth joint-inventor: **Michael Leo Walker**

Inventor's signature:

Date:

Residence: **4100 The Woods Drive Apt. 810, San Jose, California 95136**

Citizenship: **United States of America**

Post Office Address: Same

Full name of seventh joint-inventor: **Paul Harold Hilton**

Inventor's signature:



Date:

Area 14, 2003

Residence: **20 Cummer Place, Box 444, Bragg Creek, Alberta Canada, TOLOKO**

Citizenship: **Canada**

Post Office Address: Same

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DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence and citizenship are as stated below next to my name;

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

the specification of which (check one)

RECEIVED

X is attached hereto.
was filed on
as Application Serial No.
and was amended on (if applicable).

MAY 20 2003

Technology Center 2100

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s) Priority Claimed
none (Number) (Country) (Day/Month/Year filed) Yes No

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

none (Application Serial No.) (Filing Date) (Status) (patented, pending, abandoned)

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.

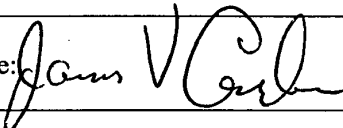
POWER OF ATTORNEY: As named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Randall J. Bluestone	40,518	John E. Hoel	26,279
Paik Saber	37,494	Robert B. Martin	26,945
Douglas R. Millett	31,784	Edward A. Pennington	32,588
Abdy Raissinia	38,686	Joseph C. Redmond, Jr.	18,753
Christopher A. Hughes	26,914	Ron Feece	46,327
William D. Gill	44,124	Brian C. Kunzler:	38,527

Send correspondence to:

Brian C. Kunzler
10 West 100 South Suite 425
Salt Lake City, Utah 84101
Telephone: (801) 994-4646

Full name of sole or first joint-inventor: **James Vernon Carlson**

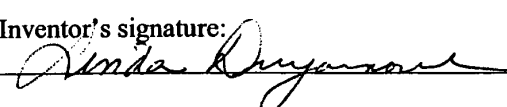
Inventor's signature:  Date: 11 MARCH 2003

Residence: **231 Purple Glen Drive, San Jose, California 95119-1533**

Citizenship: **United States of America**

Post Office Address: Same

Full name of second joint-inventor: **Linda Marie Duyanovich**

Inventor's signature:  Date: 2/27/03

Residence: **5056 Woodbrae Ct., Saratoga, California 95070**

Citizenship: **United States of America**

Post Office Address: Same

Full name of third joint-inventor: **Toby Lyn Marek**

Inventor's signature: *Toby Lyn Marek* Date: *2/18/03*

Residence: **3494 Tulane Court, Santa Clara, California 95051**

Citizenship: **United States of America**

Post Office Address: Same

Full name of fourth joint-inventor: **David Ronald Nowlen**

Inventor's signature: *David Ronald Nowlen* Date: *3/27/03*

DN 18360 SAN ANTONIO
Residence: **18395 Murphy Springs Drive, Morgan Hill, California 95037**

Citizenship: **United States of America**

Post Office Address: Same

Full name of fifth joint-inventor: **David Allan Pease**

Inventor's signature: *David Allan Pease* Date: *2-21-03*

Residence: **21492 Mary Alice Way, Redwood Estates, California 95044**

Citizenship: **United States of America**

Post Office Address: P.O. Box 572, Redwood Estates, California 95044

Full name of sixth joint-inventor: **Michael Leo Walker**

Inventor's signature:

Michael Walker

Date:

3/11/2003

Residence: **4100 The Woods Drive Apt. 810, San Jose, California 95136**

Citizenship: **United States of America**

Post Office Address: Same

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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 NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
10/389,408		2141	06B0

Correspondence Address / Fee Address Change

The following fields have been set to Customer Number 45216 on 07/26/2005

- Correspondence Address

The address of record for Customer Number 45216 is:

KUNZLER & ASSOCIATES
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S8	4	((manag\$5 or administr\$5 or handl\$5) near15 file) and(((proPERT\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer adj platform))	US-PGPUB; USPAT	OR	ON	2006/06/26 16:39
S9	13	((manag\$5 or administr\$5 or handl\$5) near15 file) and(((proPERT\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT	OR	ON	2006/06/26 16:42



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1460
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229

45216 7590 07/05/2006

KUNZLER & ASSOCIATES
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

MIRZA, ADNAN M

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/389,408	Applicant(s) CARLSON ET AL.	
	Examiner Adnan M. Mirza	Art Unit 2145	

-- 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 14 March 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) 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

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 March 2003 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).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).
 a) All b) Some * c) None of:
 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) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 03/14/2003.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (U.S. 5,519,865) and further in view of Nowatzki et al (U.S. 6,594,689).

3. As per claims 1,9 Kondo disclosed policy-based data management system comprising: a policy set comprising at least one service class rule; a file evaluation module configured to apply the service class rule to assign a service class to a file; a file usage module configured to conduct operations on the file in a manner directed by the service class; (col. 4, lines 33-60)

However Kondo did not disclose in detail, “a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms”.

In the same field of endeavor Nowatzki disclosed, “similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing

Art Unit: 2145

commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform (col. 4, lines 11-16).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform as taught by Nowatzki in the method of Kondo to make the system more versatile reduce latency and cost.

4. As per claims 2,10,16,24 Kondo-Nowatzki disclosed wherein the file evaluation module is further configured to automatically assign the file to a storage pool (Nowatzki, col. 5, lines 54-64).

5. As per claims 3,17 Kondo-Nowatzki disclosed wherein the file evaluation module is configured to assign the storage pool to the file based on the service class (Kondo, col. 5, lines 17-34).

6. As per claims 4,18 Kondo-Nowatzki disclosed wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file (Kondo, col. 6, lines 37-49).

7. As per claims 5,19 Kondo-Nowatzki disclosed wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool (Kondo, col. 6, lines 37-49).

8. As per claims 6,20 Kondo-Nowatzki disclosed wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class (Nowatzki, col. 4, lines 55-61).

9. As per claims 7,21,25,27 Kondo-Nowatzki disclosed further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class (Kondo, col. 5, lines 17-34).

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10. As per claims 8,22 Kondo-Nowatzki disclosed wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390 (Nowatzki, col. 3, lines 39-43).

11. As per claim 11 Kondo-Nowatzki disclosed further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

12. As per claims 12,15,23,26 Kondo-Nowatzki disclosed a processor; a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file (Nowatzki, col. 4, lines 33-60); and a memory configured to store computer code comprising a file request transmission module configured to request receipt of the file from a storage pool; and a file usage module configured to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

13. As per claim 13 Kondo-Nowatzki disclosed wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file (Kondo, col. 6, lines 37-49).

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14. As per claim 14 Kondo-Nowatzki disclosed wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, a performance priority, and cache allocation scheme of the client for a file based on the service class assigned to the file (Nowatzki, col. 4, lines 55-61).

Conclusion

15. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

16. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. 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

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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).

AM

Adnan Mirza

Examiner


JASON CARDONE
SUPERVISORY PATENT EXAMINER

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT <i>(use several sheets if necessary)</i>	SERIAL NO. Not yet assigned	ATTORNEY DOCKET NO. SJO920020041US1
	FILING DATE March 14, 2003	GROUP ART UNIT
	APPLICANT(S): James V. Carlson et al.	

JC605 U.S. PTO
10/389408



REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
AM	A1	4,755,928	07/05/1988	Johnson et al.	364/200	03/05/1984
	A2	6,154,776	11/28/2000	Martin	709/226	03/20/1998
	A3	6,167,445	12/26/2000	Gai et al.	709/223	10/26/1998
AM	A4	6,212,562 B1	04/03/2001	Huang	709/227	03/28/1997

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION	
						YES	NO

NON-PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)

EXAMINER <i>[Signature]</i>	DATE CONSIDERED 06/26/06
------------------------------------	---------------------------------

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(s).

Notice of References Cited	Application/Control No. 10/389,408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.	
	Examiner Adnan M. Mirza	Art Unit 2145	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,519,865 A	05-1996	Kondo et al.	707/1
*	B US-6,594,689 B1	07-2003	Nowatzki et al.	709/208
	C US-			
	D US-			
	E US-			
	F US-			
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			

FOREIGN PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
	P				
	Q				
	R				
	S				
	T				

NON-PATENT DOCUMENTS

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U	
V	
W	
X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims



Application/Control No.

10/389,408

Examiner

Adnan M. Mirza

Applicant(s)/Patent under Reexamination

CARLSON ET AL.

Art Unit

2145

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date	
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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted by either submission using the EFS WEB submission system, fax to the U.S. Patent and Trademark office to fax number 571-273-8300, or is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to on October 5, 2006.

/David J. McKenzie/
Attorney for Applicant

PATENT
Docket No. 1200.2.60

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James V. Carlson)
Serial No.: 10/398,408)
Confirm. No.: 1229) Group Art
Unit: 2145)
Filed: March 14, 2003)
For: System, Method, and Apparatus for policy-based data)
management)
Examiner: Adnan M. Mirza)

RESPONSE TO OFFICE ACTION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In response to the Office Action mailed on July 5, 2006, Applicant respectfully requests reconsideration of the present application in view of the following remarks.

AMENDMENTS

Amendments to the Claims: No amendments to the claims are being made.

REMARKS

[001] The Office Action cites the following art: U.S. Patent Number 5,519,865 to Kondo et al (hereinafter Kondo) and U.S. Patent Number 6,594,689 to Nowatzki et al (hereinafter Nowatzki).

[002] For the Examiner's convenience and reference, Applicant's remarks are presented in substantially the same order in which the corresponding issues were raised in the Office Action. Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references.

STATUS OF THE CLAIMS

[003] Claims 1-27 are pending. Claims 1-27 stand rejected under 35 USC § 103(a) as unpatentable in view of Kondo and Nowatzki. No claims are amended. No claims are canceled. No new claims have been added. No new matter has been added.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 103(a)

[004] Claims 1-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kondo and Nowatzki. Applicant respectfully submits that these claims are patentable over the cited references because the Office action fails to make a *prima facie* case of obviousness. Accordingly, Applicant traverses these rejections as outlined below.

CLAIM 1

[005] To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable

expectation of success must both be found in the prior art and not based on applicant's disclosure. (MPEP 2143).

[006] Regarding independent Claim 1, Applicant respectfully submits that the Office Action fails to make a *prima facie* case of obviousness because the Kondo in combination with Nowatski fails to teach or suggest all of the claim limitations recited in Claim 1. Claim 1 states:

a policy set comprising at least one **service class rule**;
a **file evaluation module** configured to apply the service class rule to
assign a service class to a file;
a file usage module configured to **conduct operations** on the file in a
manner directed by the service class; and
a **communication module** operable to communicate between the file
evaluation module and a plurality of remote clients and configured
to communicate with **clients** comprising at least **two different
computing platforms**. (emphasis added).

[007] The Office Action states that Kondo Col. 4 lines 33-60 teaches all the elements of Claim 1 except the "communication module element". The Office Action suggests that the "communication module element" is taught in Nowatski. Applicant respectfully disagrees.

[008] Kondo Col. 4 lines 33-60 teaches operation of a retrieval interface system configured to classify database contents into groups using the file attributes. See Kondo Col 3, lines 15-19. Generally, Kondo relates to a retrieval interface that assists a user in making queries on a database or file database. Kondo provides a classification of retrieval results into groups and indicates what percentage of the total number of files the retrieval results represent. See Kondo Abstract. Kondo conducts some of the classification based on file attributes. See Kondo Col 3, lines 15-19. Figure 4 illustrates some of the possible classifications. Figure 3 illustrates a user interface for conducting a retrieval query and viewing classifications as well as reclassifying.

[009] Applicants submit that Kondo is directed to a completely different set of problems and challenges than the present invention. Kondo is dealing with retrieval of files and classifying the results of a file query. In contrast, the present invention is dealing with automatically associating a certain policy with a file for management of the file in a storage system. See Specification page 6, line 26. Applicants submit that determining a storage policy associated with a file is distinctly different from classifying results of a query for files.

[010] The policy deals with how the file will be handled by the storage system, where the file will reside, what level of recovery will be provided for the file, and the like. These policies are divided into service class policies which represent the level of service to be provided to operations involving this file and storage pool policies which represent the types of storage that will be used for the file and the types of recovery and access speed for the file. See specification page 4, lines 19-21. The policies include rules which use file attributes to determine a service class for the file. See specification page 4, lines 19-21. These rules are the **service class rules** recited in Claim 1. The service class represents the level of service the storage system is to provide for the file, not the categorization of classification of the file relative to other files in a query result set as in Kondo. See Specification page 4, lines 23-25.

[011] Thus, Claim 1 recites **a service class rule** of a policy set. Applicants submit that Kondo fails to teach or suggest a service class rule. The classification methods referred to in Kondo are simply ways to group query results with file attributes of a certain type to distinguish one file from another for a user. The classification methods are not rules which determine level of service (resources, priority, etc.) that a storage system will provide a file. In Kondo, the classification methods determine how the files will be categorized and grouped relative to each other. The classification methods of Kondo have nothing to do with storage operations or levels of service provided by storage systems. Applicants submit that a classification in Kondo is fundamentally different from a service class applied to a file as recited in Claim 1.

[012] Similarly, Kondo fails to perform any operations on the files other than provide classified results of queries relative to the files. Claim 1 specifically recites that Kondo teach a file usage module that performs operations on the file in accordance with its associated service class. As explained above, this means that the operations are performed with the suitable level of resources and priority associated with the particular class (i.e. Platinum, Gold, Silver, etc.) In this manner the files are stored, retrieved, backed up, etc. according to the service class. Applicants find nothing in the cited portion of Kondo that indicates that one grouping of files is treated any differently in terms of priority than another.

[013] The MPEP requires that “During patent examination, the pending claims must be “given *>their< broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000), MPEP §2111. While at first

blush a broad reading of Claim 1 may make Kondo attractive as prior art. Closer inspection reveals that all of the elements of Claim 1 relate and are defined in relation to management of files in a storage system. Since, “[the] meaning of words used in a claim is not construed in a “lexicographical vacuum, but in the context of the specification and drawings.” *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999), MPEP §2106, Applicants submit that Kondo clearly fails to teach or describe “A policy-based data management system...” that includes a policy set having a **service class rule**. Kondo also fails to teach or describe a **file evaluation module** configured to apply the service class rule to **assign a service class to a file**.

[014] For the reasons above, Applicant respectfully submits that the Office Action fails to make a *prima facie* case of obviousness because the combination of the Kondo and Nowatski fails to teach or suggest all of the limitations of Claim 1. Consequently, Applicant requests that the rejection of Claim 1 under 35 U.S.C § 103(a) be withdrawn.

[015] Given that dependent Claims 2-8 depend from Claim 1, Applicant respectfully submits that those claims are also patentable over the cited references. Accordingly, Applicant requests that the rejection of dependent Claims 2-8 under 35 U.S.C. § 103(a) be withdrawn.

[016] Applicants submit that Independent Claims 9, 12, 15, 23, and 26 teach substantially the same elements are those described above in relation to Claim 1. Consequently, Applicants submit that Independent Claims 9, 12, 15, 23, and 26 are allowable for at least the same reasons as Claim 1. Given that dependent Claims 10-11, 13-14, 16-22, 24-25, and 27 depend from Independent Claims 9, 12, 15, 23, and 26, Applicant respectfully submits that those claims are also patentable over the cited references.

[017] Finally, no motivation to combine the Kondo and Nowatski exists. While Kondo teaches grouping of files in a retrieval interface to the benefit of a single user performing the retrieval request, the Nowatski teaches inter-software communication between different computing platforms. Applicants fail to see why one of skill in the art would want to couple two different machines to provide categorization of file retrieval results for a single user. The single user can only use one machine at a time. Even if the two machines are co-located, the user’s attention is only directed toward one machine at a time. Furthermore, the categorization of retrieval results of files across two computer platforms as suggested by the combination

advanced by the Office Action seems to likely lead to a more complicated interface and system for the user. In addition, using two machines rather than one as taught by Kondo seems to increase costs rather than reduce them as suggested in the Office Action.

[018] Applicants submit that the stated benefits proposed does not provide the required suggestion, incentive, and motivation to **combine** two references. “When the combination of the two references create an unworkable invention, no motivation to combine exists. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.” MPEP §2143.01.

[019] Instead, Applicants submit that the Office Action has used the Applicants disclosure “...as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious. . . . This court has previously stated that ‘[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’” *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). Consequently, Applicants submit that the rejections under 35 USC §103 are improper and should be withdrawn.

CONCLUSION

As a result of the presented amendments and remarks, Applicant asserts that Claims 1-27 are patentable and in condition for prompt allowance. Should additional information be required regarding the amendment or traversal of the rejections of the independent and dependent claims enumerated above, the Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

/David J. McKenzie/_____

David J. McKenzie
Reg. No. 46,919
Attorney for Applicant

Date: October 5, 2006
Kunzler & Associates
8 East Broadway, Suite 600
Salt Lake City, UT 84101
Telephone (801) 994-4646
Fax (801) 531-1929

Electronic Acknowledgement Receipt

EFS ID:	1239020
Application Number:	10389408
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor:	James Vernon Carlson
Customer Number:	45216
Filer:	David McKenzie
Filer Authorized By:	
Attorney Docket Number:	SJO920020041US1
Receipt Date:	05-OCT-2006
Filing Date:	14-MAR-2003
Time Stamp:	18:55:51
Application Type:	Utility
International Application Number:	

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part	Pages
1		SJO920020041US1_OAR1.pdf	45870	yes	7

Multipart Description			
	Doc Desc	Start	End
	Amendment - After Non-Final Rejection	1	2
	Applicant Arguments/Remarks Made in an Amendment	3	7
Warnings:			
Information:			
Total Files Size (in bytes):		45870	
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> 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><u>National Stage of an International Application under 35 U.S.C. 371</u> 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>			



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229

45216 7590 12/13/2006
KUNZLER & ASSOCIATES
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/389,408	Applicant(s) CARLSON ET AL.	
	Examiner Adnan M. Mirza	Art Unit 2145	

-- 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 07 October 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) 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

- 4) Claim(s) 1-27 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) 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).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).
 - a) All b) Some * c) None of:
 - 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) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (U.S. 5,519,865) and further in view of Nowatzki et al (U.S. 6,594,689).

3. As per claims 1,9 Kondo disclosed policy-based data management system comprising: a policy set comprising at least one service class rule; a file evaluation module configured to apply the service class rule to assign a service class to a file; a file usage module configured to conduct operations on the file in a manner directed by the service class; (col. 4, lines 33-60)

However Kondo did not disclose in detail, “a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms”.

In the same field of endeavor Nowatzki disclosed, “similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The

Art Unit: 2145

user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform (col. 4, lines 11-16).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform as taught by Nowatzki in the method of Kondo to make the system more versatile reduce latency and cost.

Art Unit: 2145

4. As per claims 2,10,16,24 Kondo-Nowatzki disclosed wherein the file evaluation module is further configured to automatically assign the file to a storage pool (Nowatzki, col. 5, lines 54-64).

5. As per claims 3,17 Kondo-Nowatzki disclosed wherein the file evaluation module is configured to assign the storage pool to the file based on the service class (Kondo, col. 5, lines 17-34).

6. As per claims 4,18 Kondo-Nowatzki disclosed wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file (Kondo, col. 6, lines 37-49).

7. As per claims 5,19 Kondo-Nowatzki disclosed wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool (Kondo, col. 6, lines 37-49).

8. As per claims 6,20 Kondo-Nowatzki disclosed wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class (Nowatzki, col. 4, lines 55-61).

Art Unit: 2145

9. As per claims 7,21,25,27 Kondo-Nowatzki disclosed further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class (Kondo, col. 5, lines 17-34).

10. As per claims 8,22 Kondo-Nowatzki disclosed wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390 (Nowatzki, col. 3, lines 39-43).

11. As per claim 11 Kondo-Nowatzki disclosed further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

12. As per claims 12,15,23,26 Kondo-Nowatzki disclosed a processor; a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file (Nowatzki, col. 4, lines 33-60); and a memory configured to store computer code comprising a file request transmission module configured to request receipt of the file from a storage pool; and a file usage module configured to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

13. As per claim 13 Kondo-Nowatzki disclosed wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata

Art Unit: 2145

server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file (Kondo, col. 6, lines 37-49).

14. As per claim 14 Kondo-Nowatzki disclosed wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, a performance priority, and cache allocation scheme of the client for a file based on the service class assigned to the file (Nowatzki, col. 4, lines 55-61).

Response to Arguments

15. Applicant's arguments filed 10/07/2006 have been fully considered but they are not persuasive. Response to applicant's argument is as follows.

A. Applicant argued that Examiner fails to make a prima facie case of obviousness because Kondo in combination with Nowatski fails to teach or suggest all of the claim limitations recited in claim 1.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching,

Art Unit: 2145

suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Nowatzki and Kondo are combine to make the system more versatile reduce latency and cost.

B. Applicant argued that Kondo did not disclose, “ storage operations or levels of service provided by storage systems”.

As to applicant’s argument Kondo disclosed, “Since the history management retains the retrieval conditions in executed classification in the history information storage section as history information, classification can be reproduced in response to a user request (col. 3, lines 33-37).

C. Applicant argued that Kondo fails to disclose, “ A file evaluation module configured to apply the service class rule to assign a service class to a file”.

A to applicant’s argument Kondo disclosed, “when receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202 (col. 6, lines 37-43).

Conclusion

15. **THIS ACTION IS MADE FINAL.** 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 mailing date of this final action.

16. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

17. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2145

18. 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 un published 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).

AM

Adnan Mirza

Examiner


JASON CARDONE
SUPERVISORY PATENT EXAMINER

Index of Claims



Application/Control No.

10/389,408

Examiner

Adnan M. Mirza

Applicant(s)/Patent under Reexamination

CARLSON ET AL.

Art Unit

2145

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted by either submission using the EFS WEB submission system, fax to the U.S. Patent and Trademark office to fax number 571-273-8300, or is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to on February 13, 2007.

/David J. McKenzie/
Attorney for Applicant

PATENT
Docket No. 1200.2.60

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James V. Carlson)
Serial No.: 10/398,408)
Confirm. No.: 1229) Group Art
Unit: 2145)
Filed: March 14, 2003)
For: System, Method, and Apparatus for policy-based data)
management)
Examiner: Adnan M. Mirza)

REQUEST FOR RECONSIDERATION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In response to the Final Office Action mailed on December 13, 2006 (hereinafter "Final Office Action"), Applicant respectfully requests reconsideration of the present application in view of the following remarks.

AMENDMENTS

Amendments to the specification: No amendments to the specification are being made.

Amendments to the figures: No amendments to the figures are being made.

Amendments to the claims: No amendments to the claims are being made.

REMARKS

[001] The Office Action cites the following art: U.S. Patent Number 5,519,865 to Kondo et al (hereinafter Kondo) and U.S. Patent Number 6,594,689 to Nowatzki et al (hereinafter Nowatzki).

STATUS OF THE CLAIMS

[002] Claims 1-27 are pending. Claims 1-27 remain rejected in the Final Office Action under 35 USC § 103(a) as unpatentable in view of Kondo and Nowatzki. No claims are amended. No claims are canceled. No new claims have been added. No new matter has been added.

RESPONSE TO ARGUMENTS

[003] The Examiner's responses to Applicants arguments have been reviewed and found to overlook relevant facts present in the current application. Applicants file this request for reconsideration in an effort to avoid the delay and expense of an appeal.

[004] Applicants request reconsideration on two grounds, first that the Examiner has failed to identify each element of the claims in the prior art references, second that Kondo and Nowatzki are nonanalogous art.

REFERENCES FAIL TO TEACH EACH ELEMENT OF THE CLAIMS

[005] The Final Office Action states "Applicant argued that Kondo did not disclose, "storage operations or levels of service provided by storage systems." See Final Office Action page 7, item B, Applicants Response file October 5, 2006 (hereinafter "Response") page 5, para. 11. The Examiner responds by citing to Col. 3, ll. 33-37 of Kondo. This portion of Kondo simply teaches the concept of storing a classification with retrieval criteria for later use.

[006] Applicants submit that the Examiner has failed to respond to the issue raised by the Applicant. Applicant's Response highlights that Kondo fails to teach or disclose a "service class rule of a policy set." See Response, para. 11. A service class rule is fundamentally different from a classification a user may apply to data in Kondo. See Response, para. 10. The

Examiner has provided no evidence of where “a service class rule” is taught or disclosed in Kondo.

[007] In addition, the Examiner has provided no evidence in Kondo for the teaching of a “file usage module configured to conduct operations on the file in a manner directed by the service class” as recited in Claim 1. This element is discussed in the Response in paragraph 12.

[008] The Examiner suggests that Kondo teaches a “file evaluation module configured to apply the service class rule to assign a service class to a file” as recited in Claim 1 at Col. 6 ll. 37-43. Applicants disagree. Instead, Applicants submit that the Examiner has improperly taken this subject matter out of context. Kondo is teaching about the method of classifying retrieval results illustrated in Figure 7. Kondo is teaching that a user may select from a set of classifications methods (step 202). See Kondo Col. 6, ll. 42-43. The classification methods are stored in the classification information storage section 15. Figure 8 of Kondo provides examples of these classification methods. See Kondo Fig. 8.

[009] The teaching of Kondo relied upon teaches one in the art that a command to classify the results causes the classification section 12 to list available classification methods. The Examiner seems to suggest that a classification method is similar to a service class rule. Applicants disagree. As explained above and in the Response in paragraphs 10-12, a service class defines a level of performance and quality that is to be afforded the file associated with the service class. Not a set of criteria for organizing or relating one file among multiple files. Kondo teaches a grouping or organizing of results in the “notice group” into different categories. Some confusion is caused because Kondo is using the term “class” where category appears to be more appropriate.

[010] Applicants note that Claim 1 recites “assign a service class to a file.” Kondo teaches associating a classification with a group of results which may include files. Kondo Col. 6, line 47. In contrast, Claim 1 assigns a single service class to a single file. This assignment essentially associates a distinguishing characteristic with a file that was **not originally present**. That characteristic is the level of service that is to be provided when dealing with the file.

[011] There is no teaching in Kondo of assigning a classification, much less a “service class” to a single file. Instead, Kondo teaches grouping a set of files together based on a characteristic **already associated** with the file. Applicants submit that a notion of assigning a

classification method to each file in Kondo is counterintuitive since Kondo teaches classification/categorization of data. If each file has its own classification, there would be increased overhead and if the classifications were each different there would be little or no categorization possible under Kondo. As a result of the assignment recited in Claim 1, the file has a new characteristic namely its service class. In contrast, the result of the classification of a file in Kondo does not change the characteristics of the file.

[012] Finally, Claim 1 recites a “file usage module configured to conduct operations on the file in a manner directed by the service class.” In the Final Office Action, the Examiner points to Col. 4, lines 33-60 of Kondo but provides no further evidence. In particular, the Examiner fails to point to a specific teaching that renders the file usage module obvious. Applicants submit that such a failure is an improper.

[013] Col. 4, lines 33-60 of Kondo describes one embodiment illustrated in Figure 4. Searching this description and Figure 1, the only elements that seem to relate to a “file usage module” as claimed are the file database 3 and the file management section 4. Regarding these two elements, Kondo teaches “a classifying section 12 which classifies the contents of a file database (simply database) 3 based on specification of a classification method.” Kondo Col. 4, ll. 39-41. Kondo also explains that the control section “sends the obtained retrieval condition to a file management section 4 and performs conventional processing at step 104.” Kondo Col. 5, l. 66- Col. 6, l. 4. None of these teachings indicate that operations on a file are directed or controlled by a service class. Instead, a classification method is used to categorize members of the file database 3. As explained above, this is different from assigning a class to a file and using that class assignment to control how a file is treated.

[014] In fact, Kondo teaches away from the idea of treating one file any differently than another file. For example, Kondo explains “...file management section 4 and performs conventional processing at step 104.” Kondo Col. 6, ll. 2-4. This indicates that each file is treated alike. There is no service class distinction between files of Kondo as recited in Claim 1.

[015] Therefore, Applicants submit that Kondo fails to teach each element of Claim 1. Furthermore, Nowatzki fails to cure the defects and lack of teachings in Kondo. Applicants request reconsideration as these reference fail to teach each element of the recited Claims 1. Therefore, maintaining this rejection is improper and appealable.

KONDO IS NONANALOGOUS ART

[001] The Kondo reference is non-analogous art and thus is not a valid reference to cite for a §103 rejection. Determining that a cited reference is non-analogous requires a two-step process. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The first step is to determine if the reference is within the inventor’s field of endeavor. *Id.* If so, then the reference is analogous. *Id.* If the reference is not within the inventor’s field of endeavor, the second step is to determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *Id.*

[002] The first question, whether the reference is in the inventor’s field of endeavor is narrow in scope. It is not sufficient that the reference and the claimed invention are both in the computer science art or both related to files as demonstrated by *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). Nor is it sufficient simply to state that Nowatzki is in the same field of endeavor. See Final Office Action Page 2, last paragraph. The *Wang* decision is cited in detail at MPEP 2141.01(a) – ANALOGY IN THE ELECTRICAL ARTS:

“Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random- access-memories or read-only-memories, the finding that the reference was nonanalogous was supported by substantial evidence.” MPEP 2141.01(a)

[003] Thus, a reference to a memory module was found not to be in the field of endeavor for an invention relating to SIMMs for installation on a printed circuit motherboard. The fact that the claimed inventions were for personal computers rather than industrial computers and for random access memory rather than static memory were sufficient distinctions to remove the claimed invention from the same field of endeavor as the cited reference.

[004] With respect to the present invention, the claims recite a method and system for policy-based data management of files having service classes. This field of endeavor is distinct from the Kondo reference which relates to an improved file/database retrieval system that allows the results to be classified into groups. The mere fact that Kondo and the claimed invention both involve work with files and include terminology that includes the prefix “class” is not sufficient to establish the same field of endeavor. This is supported by the MPEP’s citation to *Wang* which teaches that two references that both relate to computer memory are not necessarily analogous simply because both references use the term “memory.” MPEP 2141.02(a).

[005] The second part of the two-part test for analogous art requires that the cited reference be reasonably pertinent to the particular problem with which the inventor was involved. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). To answer this question, the purpose of the reference and the claimed invention are compared.

[006] Kondo explicitly states the problem faced and addressed by Kondo, et al. is:

“to provide a retrieval interface system which provides a retrieval system and a display system for the user to view the percentage of the retrieval result occupying the whole operation and the effect when strict conditions are specified in an information retrieval, and which suppresses missing of data and decreases the number of trial and error times for reducing the time and labor required for retrievals.” Kondo, Col. 2, lines 26-33.

[007] Kondo addresses this problem by providing a system that includes a user interface that allow a user to narrow the contents of the database pictorially until a desirable set of results is obtained. See Kondo Fig. 10, Col. 7, ll. 46-64.

[008] In contrast, the claimed invention deals with the problem of storage systems treating all files alike. The claimed invention notes the problem as:

“...known distributed storage systems generally do not ...account for the different requirements placed on [these] files. Specifically, different files may have different requirements for accessibility, disaster recoverability, retrieval speed, retrieval consistency, and storage format. Some files may need to be accessed by many people simultaneously, while others are only used rarely, by a single user. Some files are "mission critical," and therefore must not be lost if hardware damage occurs; others are more expendable. Similarly, some files must be accessed rapidly and/or transferred at a

consistent, rapid data transfer rate, while others do not require rapid access. ...[W]hat is needed is a comparatively simple and versatile system, method, and apparatus for managing data in a network according to predetermined policies. ...that prioritize files within the network, with clients that operate based on a plurality of different operating platforms.” Specification page 2, line 11 – page 3, line 5.

The present invention resolves this problem.

[009] The problems are completely different. Reducing a set of files or database results down pictorially (using icons) to a desired set based on classification filters as taught in Kondo does not commend to the mind of an inventor concepts even related to how to have a data storage system treat a first file differently than a second file in accordance with some file management policies. Under *Wang*, the fact that the two references examined both dealt with computer memory was not sufficient to find that the references were analogous art. Similarly, Kondo and the present invention both deal with files, but that does not make Kondo analogous art. Thus, Kondo is not analogous art and is an improper 35 U.S.C. §103(a) reference.

NOWATZKI IS NONANALOGOUS ART

[010] The Nowatzki reference is non-analogous art and thus is not a valid reference to cite for a §103 rejection. Determining that a cited reference is non-analogous requires a two-step process, as described above.

[011] The first question, whether the reference is in the inventor’s field of endeavor remains narrow in scope. It is not sufficient that the reference and the claimed invention are both related to computing platforms as demonstrated by *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). Nor is it sufficient simply to state that Nowatzki is in the same field of endeavor. See Final Office Action Page 2, last paragraph. The *Wang* decision as explained above makes clear that a memory module is not in the field of endeavor for an invention relating to SIMMs for installation on a printed circuit motherboard. The fact that the claimed inventions were for personal computers rather than industrial computers and for random access memory rather than static memory were sufficient distinctions to remove the claimed invention from the same field of endeavor as the cited reference.

[012] With respect to the present invention, the claims recite a method and system for policy-based data management of files having service classes. This field of endeavor is distinct from the Nowatzki reference which relates to directly accessing data on another computer

platform. The mere fact that Nowatzki and the claimed invention both involve interoperability between different computer platforms is not sufficient to establish the same field of endeavor. This is supported by the MPEP's citation to *Wang* which teaches that two references that both relate to computer memory are not necessarily analogous simply because both references use the term "memory." MPEP 2141.02(a).

[013] The second part of the two-part test for analogous art requires that the cited reference be reasonably pertinent to the particular problem with which the inventor was involved. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). To answer this question, the purpose of the reference and the claimed invention are compared.

[014] Nowatzki explicitly states the problem faced and addressed by Nowatzki, et al. is:

"to take full advantage of the capabilities of interconnected computer platforms, it would be desirable to have computer programs that can execute across multiple computer platforms. For example, it would be desirable if a computer program operating on a personal computer could directly access data from, or submit runs to, another computer platform." Nowatzki, Col. 1, lines 34-40.

[015] Nowatzki addresses this problem by "providing a special program statement within the software code of a computer program that is executed on a local computer platform. The special program statement may include a remote request, and may call a utility that formats and sends the remote request to the desired remote computer platform. The utility may support requests to one or more computer platforms, and may support one or more communication protocols. After the remote request has been processed by the desired remote computer platform, resulting data may be returned to the computer program on the local computer platform." See Nowatzki Col. 1, l. 58- Col. 2, l. 2.

[016] In contrast, the claimed invention deals with the problem of storage systems treating all files alike. The claimed invention notes the problem as:

"...known distributed storage systems generally do not ...account for the different requirements placed on [these] files. Specifically, different files may have different requirements for accessibility, disaster recoverability, retrieval speed, retrieval consistency, and storage format. Some files may need to be accessed by many people

simultaneously, while others are only used rarely, by a single user. Some files are "mission critical," and therefore must not be lost if hardware damage occurs; others are more expendable. Similarly, some files must be accessed rapidly and/or transferred at a consistent, rapid data transfer rate, while others do not require rapid access. ...[W]hat is needed is a comparatively simple and versatile system, method, and apparatus for managing data in a network according to predetermined policies. ...that prioritize files within the network, with clients that operate based on a plurality of different operating platforms." Specification page 2, line 11 – page 3, line 5.

The present invention resolves this problem.

[017] The problems are completely different. Enabling a computer program to execute a remote procedure call on a different platform as taught in Nowatzki does not commend to the mind of an inventor concepts even related to how to have a data storage system treat a first file differently than a second file in accordance with some file management policies that also account for different computing platforms. Nowatzki deals with computer programs and programming where the present invention deals with data storage system treatment of files having a service class. Under *Wang*, the fact that the two references examined both dealt with computer memory was not sufficient to find that the references were analogous art. Similarly, Nowatzki and the present invention both deal with different computing platforms, but that does not make Nowatzki analogous art. Thus, Nowatzki is not analogous art and is an improper 35 U.S.C. §103(a) reference.

CONCLUSION

[018] As a result of the presented remarks, Applicant asserts that Claims 1-27 are patentable and in condition for prompt allowance. Should additional information be required regarding the amendment or traversal of the rejections of the independent and dependent claims enumerated above, the Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

_ /David J. McKenzie/ _____

David J. McKenzie
Reg. No. 46,919
Attorney for Applicant

Date: February 13, 2007
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Fax (801) 531-1929

Electronic Acknowledgement Receipt

EFS ID:	1511657
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	David McKenzie
Filer Authorized By:	
Attorney Docket Number:	SJO920020041US1
Receipt Date:	13-FEB-2007
Filing Date:	14-MAR-2003
Time Stamp:	11:29:22
Application Type:	Utility

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Amendment After Final	SJO920020041US1_FOAR1.pdf	263755	no	10

Warnings:

Information:	
Total Files Size (in bytes):	263755
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> 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><u>National Stage of an International Application under 35 U.S.C. 371</u> 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><u>New International Application Filed with the USPTO as a Receiving Office</u> 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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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229

45216 7590 03/07/2007
KUNZLER & ASSOCIATES
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

MIRZA, ADNAN M

ART UNIT	PAPER NUMBER
2145	

MAIL DATE	DELIVERY MODE
03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/389,408	Applicant(s) CARLSON ET AL.	
	Examiner Adnan M. Mirza	Art Unit 2145	

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

THE REPLY FILED 13 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
- a) The period for reply expires 3 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) They raise the issue of new matter (see NOTE below);
- (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) They present additional claims without canceling a corresponding number of finally rejected claims.
- NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. Applicant's reply has overcome the following rejection(s): _____.
6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1-27.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. Other: _____.


JASON CARDONE
 SUPERVISORY PATENT EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argued that Kondo did not disclose, "storage operations or levels of service provided by storage systems". As to applicant's argument Kondo disclosed, "Since the history management retains the retrieval conditions in executed classification in the history information storage section as history information, classification can be reproduced in response to a user request (col. 3, lines 33-37)..

Index of Claims



Application/Control No.

10/389,408

Examiner

Adnan M. Mirza

Applicant(s)/Patent under Reexamination

CARLSON ET AL.

Art Unit

2145

√	Rejected
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-	(Through numeral) Cancelled
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N	Non-Elected
I	Interference

A	Appeal
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Claim		Date			
Final	Original				
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PTO/SB/33 (07-05)
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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) S20920020041 us1	
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 AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>April 12, 2007</u> Signature <u>Bruce R. Needham</u>		Application Number <u>10/389,408</u>	Filed <u>March 14, 2003</u>
Typed or printed name <u>Bruce R. Needham</u>		First Named Inventor <u>James V. Carlson</u>	Art Unit <u>2145</u>
		Examiner <u>Adnan M. Mirza</u>	
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.			
This request is being filed with a notice of appeal.			
The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the		<u>Bruce R. Needham</u> Signature	
<input type="checkbox"/>	applicant/inventor.	<u>Bruce R. Needham</u> Typed or printed name	
<input type="checkbox"/>	assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)		
<input checked="" type="checkbox"/>	attorney or agent of record. Registration number <u>56,421</u>	<u>(800) 994-4646</u> Telephone number	
<input type="checkbox"/>	attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	<u>April 12, 2007</u> Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/>	*Total of _____ forms are submitted.		

This collection of information is required by 35 U.S.C. 132. 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, 1.14 and 41.6. 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 AF, 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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/Brian C. Kunzler/
Attorney for Applicant

PATENT
Docket No. SJO920020041US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Carlson, et al.

Serial No.: 10/389,408

Confirmation No: 1229

Filed: 14 March 2003

For: **SYSTEM, METHOD, AND APPARATUS FOR
POLICY-BASED DATA MANAGEMENT**

Examiner: Adnan M. Mirza

Group Art
Unit: 2145

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

The Applicant respectfully requests a Pre-Appeal Brief Conference. The following is a summary of the arguments of the Examiner and the Applicant on the disputed claims:

CLAIMS 1-27

Claims 1-27 are pending in the case. Claims 1, 9, 12, 15, 23, and 26 are independent claims. Claims 1-27 are rejected under 35 USC § 103(a) as unpatentable over the combination of Kondo (U.S. 5,519,865) (hereinafter, *Kondo*) in view of Nowatzki (U.S. 6,594,689) (hereinafter, *Nowatzki*).

Applicant respectfully submits that the issues pending for appeal are clear and straight forward and clearly favor the Applicant's position. Applicants submit that Applicants' position is so clear that pursuing the appeal would be a waste of the time and resources of the Office and the Applicant. Applicants respectfully submit that allowable material in Claims 1-7 is indicative of allowable material throughout Claims 1-27, and therefore in the interest of clarity and brevity, the Applicant focuses this discussion on Claims 1-7. Applicants submit that the rejections in the Office Action mailed December 13, 2006 (hereinafter Final Office Action) are improper because the Examiner fails to make a *prima facie* case of obviousness with regard to the following recited elements:

a "service class rule," "a policy set comprising at least one service class rule," "a file evaluation module configured to apply the service class rule to assign a service class to a file," and a "file usage module configured to conduct operations on the file in a manner directed by the service class" from Claim 1, and

"the file evaluation module [f]urther configured to automatically assign the file to a storage pool" (Claim 2), "the file evaluation module [f]urther configured to assign the storage pool to the file based on the service class" (Claim 3), "the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file" (Claim 4), "wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool" (Claim 5), "wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class" (Claim 6), and a "file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class" (Claim 7).

The Applicant asserts that the elements of Claims 1-7 (and thereby 1-27) are clearly missing in *Kondo*, or *Kondo* in view of *Nowatzki*, and further that *Kondo* is non-analogous art in relation to the present invention. Applicant made the arguments regarding Claim 1 above in two fully responsive Office Action Responses. The arguments regarding Claims 2-7 above are based on a thorough review of *Kondo* and *Nowatzki* while preparing the application for appeal.

The public responsibility of the Patent and Trademark Office requires attentive performance of all aspects of the patent examination function. *In Re Beaver*, 893 F.2d 329, at 330 (Fed. Cir. 1989). “The examiner cannot sit mum, leaving the applicant to shoot arrows into the dark hoping to somehow hit a secret objection harbored by the examiner,” *In Re Oetiker*, 977 F.2d 1443, at 1449 (Fed. Cir. 1992) (concurrency). “The ‘*prima facie* case’ notion... seemingly was intended to leave no doubt among examiners that they must state clearly and specifically any objections (the *prima facie* case) to patentability, and give the applicant fair opportunity to meet those objections with evidence and argument,” *Id.*

In the present case, the elements of Claim 1 are asserted generally to occur within a 28-line segment of *Kondo*. Thus, Applicant is left in the position of arguing specifically why the referenced sections of *Kondo* and *Nowatzki* do not contain the asserted elements, but without any specific assertions by the Office Action to counter. While the Applicant made arguments regarding Claim 1 traversing the rejections to the claims in the first Office Action Response (OAR1), the Final Office Action merely rejected all claims in a verbatim repeat of the first Office Action. *c.f. first Office Action, Final Office Action*, paragraphs 1-14. The “Response to Arguments” section of the Final Office Action addresses two of the Applicant’s arguments, but without context and not in reference to any specific rejected claims. While there is no legal requirement for the examiner to address each missing element argument raised, the failure to do so here is troubling because the asserted terms of the claim elements do not appear facially in *Kondo*, and the rejections are offered only generally without specific assertions as to which elements of *Kondo* are equivalent to which elements of the present invention.

Regarding the motivation to combine, the Final Office Action asserts that the combination of *Nowatzki* and *Kondo* is to “make the system more versatile[,] reduce latency and cost.” Final Office Action, page 7, lines 3-5. Applicant respectfully asserts that the combination of *Nowatzki* and *Kondo*, in addition to failing to disclose each element claimed in the present invention, leads to a more complicated interface and increases costs rather than reduces costs.

Regarding the element “A file evaluation module configured to apply the service class rule to assign a service class to a file,” the Office Action asserts that *Kondo* discloses “when receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202 (col. 6, lines 37-43).” See *Final Office Action* page 7, lines 10-15.

Applicant respectfully submits that *Kondo* is teaching about the method of classifying retrieval results illustrated in *Kondo*, Figure 7. *Kondo* is teaching that a user may select from a set of classification methods (step 202). See *Kondo*, col. 6, lines 42-43. The classification methods are stored in the classification information storage section 15. Figure 8 of *Kondo* provides examples of these classification methods. See *Kondo*, Fig. 8. The teaching of *Kondo* relied upon teaches one in the art that a command to classify the results causes the classification section 12 to list available classification methods.

Applicants note that Claim 1 recites “assign a service class to a file.” *Kondo* teaches associating a classification with a group of results which may include files. *Kondo* Col. 6, line 47. In contrast, Claim 1 assigns a single service class to a single file. The assignment in Claim 1 essentially associates a **distinguishing characteristic that was not originally present** with a file. That characteristic is the level of service that is to be provided when dealing with the file. There is no teaching in *Kondo* of assigning a classification, much less a “service class” to a single file. Instead, *Kondo* teaches grouping a set of files together based on a **characteristic already present and associated** with the file.

Applicant asserts that the *Kondo* reference is non-analogous art and thus is not a valid reference to cite for a §103 rejection. With respect to the present invention, the claims recite a method and system for policy-based data management of files having service classes. This field of endeavor is distinct from the *Kondo* reference which relates to an improved file/database retrieval system that allows the results to be classified into groups. This is supported by the MPEP’s citation to *Wang* which teaches that two references that both relate to computer memory are not necessarily analogous simply because both references use the term “memory.” MPEP 2141.02(a). Applicant further asserts that *Nowatzki* is non-analogous art as argued in the Request for Reconsideration.

Pre-Appeal Brief Conference

Applicant submits that the issues pending for appeal are clear and straight forward and clearly favor the Applicant's position set forth above. In particular, the Office Action rejections rely on *Kondo* and *Nowatzki*, which fail to teach all the elements of the present invention. Further, *Kondo* and *Nowatzki* appear to be non-analogous art, Examiner failed to show a proper motivation for making the proposed combinations in support of the rejections.

Therefore, in order to avoid the expense and delay of filing an Appeal Brief, Applicant would like these matters considered in a Pre-Appeal Brief Conference. Applicant would welcome the opportunity to discuss claim amendments or cooperate in any other way that would place the claims in condition for allowance while still maintaining a reasonable scope of the claims and the Applicant' positions set forth above.

Respectfully submitted,

Date: April 12, 2007

Kunzler & McKenzie
8 E. Broadway, Suite 600
Salt Lake City, Utah 84101
Telephone: 801/994-4646

/Brian C. Kunzler/

Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

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NOTICE OF APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES	Docket Number (Optional) 520920020041US1
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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>April 12, 2007</u> Signature <u>Bruce R. Needham</u> Typed or printed name <u>Bruce R. Needham</u>	In re Application of <u>James V. Carlson et al.</u> Application Number <u>10/389,408</u> Filed <u>March 14, 2003</u> For <u>System, Method, and Apparatus For Policy-Based Data Management</u> Art Unit <u>2145</u> Examiner <u>Adnan M. Mirza</u>
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Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) \$ 500.00

Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is: \$ _____

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. I have enclosed a duplicate copy of this sheet.

The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 09-0466. I have enclosed a duplicate copy of this sheet.

A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is 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.

I am the

applicant/inventor.

assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

attorney or agent of record. Registration number 56,421 Telephone number (801) 994-4646

attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____ Date April 12, 2007

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

*Total of _____ forms are submitted.

This collection of information is required by 37 CFR 41.31. 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, 1.14 and 41.6. 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.

Electronic Patent Application Fee Transmittal

Application Number:	10389408			
Filing Date:	14-Mar-2003			
Title of Invention:	System, method, and apparatus for policy-based data management			
First Named Inventor/Applicant Name:	James Vernon Carlson			
Filer:	Brian C. Kunzler/Heather Babb			
Attorney Docket Number:	SJO920020041US1			
Filed as Large Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Notice of appeal	1401	1	500	500
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	1251	1	120	120
Miscellaneous:				
Total in USD (\$)				620

Electronic Acknowledgement Receipt

EFS ID:	1679059
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	Brian C. Kunzler/Heather Babb
Filer Authorized By:	Brian C. Kunzler
Attorney Docket Number:	SJO920020041US1
Receipt Date:	12-APR-2007
Filing Date:	14-MAR-2003
Time Stamp:	18:34:02
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 620
RAM confirmation Number	1008
Deposit Account	090466
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Pre-Brief Conference request	SJO920020041US1_PreAppeal_Brief_Request.pdf	150504	no	1
Warnings:					
Information:					
2	Pre-Brief Conference request	SJO920020041US1_PreAppeal_Brief_Conference.PDF	40732	no	5
Warnings:					
Information:					
3	Notice of Appeal Filed	SJO920020041US1_Notice_of_Appeal.pdf	175358	no	1
Warnings:					
Information:					
4	Fee Worksheet (PTO-06)	fee-info.pdf	8327	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			374921		
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MIRZA, ADNAN M

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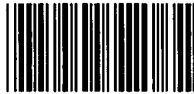
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Application Number 	Application/Control No. 10/389,408	Applicant(s)/Patent under Reexamination CARLSON ET AL.	
	Adnan M. Mirza	Art Unit 2145	
Document Code - AP.PRE.DEC			

Notice of Panel Decision from Pre-Appeal Brief Review



This is in response to the Pre-Appeal Brief Request for Review filed 4/12/07.

1. **Improper Request** – The Request is improper and a conference will not be held for the following reason(s):

- The Notice of Appeal has not been filed concurrent with the Pre-Appeal Brief Request.
- The request does not include reasons why a review is appropriate.
- A proposed amendment is included with the Pre-Appeal Brief request.
- Other:

The time period for filing a response continues to run from the receipt date of the Notice of Appeal or from the mail date of the last Office communication, if no Notice of Appeal has been received.

2. **Proceed to Board of Patent Appeals and Interferences** – A Pre-Appeal Brief conference has been held. The application remains under appeal because there is at least one actual issue for appeal. Applicant is required to submit an appeal brief in accordance with 37 CFR 41.37. The time period for filing an appeal brief will be reset to be one month from mailing this decision, or the balance of the two-month time period running from the receipt of the notice of appeal, whichever is greater. Further, the time period for filing of the appeal brief is extendible under 37 CFR 1.136 based upon the mail date of this decision or the receipt date of the notice of appeal, as applicable.

The panel has determined the status of the claim(s) is as follows:

Claim(s) allowed: _____
 Claim(s) objected to: _____
 Claim(s) rejected: 1-27.
 Claim(s) withdrawn from consideration: _____.

3. **Allowable application** – A conference has been held. The rejection is withdrawn and a Notice of Allowance will be mailed. Prosecution on the merits remains closed. No further action is required by applicant at this time.

4. **Reopen Prosecution** – A conference has been held. The rejection is withdrawn and a new Office action will be mailed. No further action is required by applicant at this time.

All participants:

(1) Adnan M. Mirza.

(2) Jason Cardone.

(3) Lynne H Browne.

(4) _____.


Lynne H. Browne
Appeal Specialist, TQAS
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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted by either submission using the EFS WEB submission system, fax to the U.S. Patent and Trademark office to fax number 571-273-8300, or is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to on June 12, 2007.

/David J. McKenzie/
Attorney for Applicant

PATENT

Docket No.SJO920020041US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Carlson, et al.)	
)	
Serial No.:	10/389,408)	
Conf. No.:	1229)	Group Art
)	Unit: 2145
Filed:	March 14, 2003)	
)	
For:	SYSTEM, METHOD, AND APPARATUS FOR)	
	POLICY-BASED DATA MANAGEMENT)	
Examiner:	Adnan M. Mirza		

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

The USPTO received Appellant’s timely Notice of Appeal on April 12, 2006, which was filed in response to the Final Office Action mailed December 13, 2006. Appellant appeals the rejection of pending Claims 1-27. This Appeal Brief is being filed under the provisions of 37 C.F.R. § 41.37. The filing fee set forth in 37 C.F.R. § 41.20(b)(2) of \$500.00 is submitted herewith. The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or to credit any overpayment, to Deposit Account No. 09-0466.

1. REAL PARTY IN INTEREST

The real party in interest is the assignee, International Business Machines Corporation, Armonk, New York.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals, interferences, or judicial proceedings.

3. STATUS OF CLAIMS

The Final Office Action rejected Claims 1-27. All Claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent no. 5,519,865 to Kondo (hereinafter *Kondo*), in view of U.S. patent no. 6,594,689 to Nowatzki (hereinafter *Nowatzki*). All claims remain rejected after a request for reconsideration, an Advisory Action, a request for a pre-appeal conference, and a Notice of Panel Decision from Pre-Appeal Brief Review. Appellant appeals the rejection of Claims 1-27.

4. STATUS OF AMENDMENTS

There are no proposed amendments at issue from the Claims and Specification considered by the Examiner in the Final Office Action. Appellant notes however that Claim 3 appears to depend from an incorrect parent claim as “the storage pool” currently lacks antecedent basis. Appellant submits that this issue is an informality that can be resolved by Examiner’s amendment once allowance is granted. Once Claim 3 is allowed, Appellant requests that the Examiner’s amendment change the dependency of Claim 3 from Claim 1 to Claim 2.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter deals with policy-based data management on a distributed storage system, including prioritizing files within a network and storing the files in various storage pools according to the prioritization. *See* Spec. pg 3, ll. 1-9.

The problems addressed are that many known distributed storage systems have no method of prioritizing storage operations. *See* Spec. pg 2, ll. 1-2. Further, current distributed storage systems are not capable of storing data using prioritized operations within multiple

platforms and operation systems. *See Spec.* pg 2, ll. 6-10. Finally, known distributed storage systems do not permit a user to automatically select between multiple storage systems, nor do these systems account for the different requirements that may be desirable for different files. *See Spec.* pg 2, ll. 11-13. For example, some files may be critical and must not be lost, some files may need to be available for rapid access, and some files may be expected to expand considerably over time and should be stored in a location that allows such expansion. *See Spec.* pg 2, ll. 13-21. Further, current distributed storage systems do not utilize the varying performance capabilities of different storage pools, which may vary in terms of access speed, storage capability, location, cost, and disaster recoverability. *See Spec.* pg 2, ll. 22-27.

Embodiments of the present invention include a server, a client, a method, a computer readable medium, and a plurality of systems.¹ *See e.g.* Claims 1, 9, 12, 15, 23, and 26. The system of Claim 26 includes a means for applying a service class rule to assign a service class to a file, a means for controlling handling of the file based on the service class, and a means for communicating with a plurality of clients comprising at least two different computing platforms.

Claim 1 presents a policy-based data management system. *See Spec.* pgs. 17-22, Figs. 3 and 4. The system comprises a policy set comprising at least one service class rule. *See Spec.* pg. 14, ll. 18-20, pg. 18, ll. 12-17, Figs. 2, 3 element 210. The system further comprises a file evaluation module configured to apply the service class rule to assign a service class to a file. *See Spec.* pg. 18, ll. 12-20, Fig. 3 element 350. The system further comprises a file usage module configured to conduct operations on the file in a manner directed by the service class. *See Spec.* pg. 21, ll. 6-13, Fig. 4 element 470. The system further comprises a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms. *See Spec.* pg. 20, ll. 3-26, pg. 21, ll. 1-18, Fig. 4 element 125 (*as a metadata server*).

The following quotation of Claim 1 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 1 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

¹ Although Appellant has summarized embodiments of the present invention, the present invention is defined by the claims themselves. Appellant's summary is not intended to limit the scope of the claims or individual claim elements in complying with the appeal brief requirements under 37 C.F.R. § 41.37(c)(v).

1. A policy-based data management system comprising:
 - a policy set comprising at least one service class rule; (*See Spec. pgs. 17-22, Figs. 3 and 4.*)
 - a file evaluation module configured to apply the service class rule to assign a service class to a file; (*See Spec. pg. 18, ll. 12-20, Fig. 3 element 350.*)
 - a file usage module configured to conduct operations on the file in a manner directed by the service class; and (*See Spec. pg. 21, ll. 1-13, Fig. 4 element 470.*)
 - a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms. (*See Spec. pg. 20, ll. 3-26, pg. 21, ll. 1-18, Fig. 4 element 125 (as a metadata server).*)

Claim 2 presents a policy-based data management system. *See Spec. pgs. 17-22, Figs. 3 and 4.* Appellant respectfully asserts that Claim 2 contains substantially similar subject matter for the purposes of evaluating allowability to Claims 10, 16, and 24. Beyond the system of claim 1, the system of claim 2 includes the file evaluation module configured to automatically assign the file to a storage pool. *See Spec. pg. 18, ll. 21-27, pg. 19, ll. 1-19, Fig 3.*

The following quotation of Claim 2 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 2 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

2. The policy-based data management system of claim 1, wherein the file evaluation module is further configured to automatically assign the file to a storage pool. *See Spec. pg. 18, ll. 21-27, pg. 19, ll. 1-19, Fig. 3.*

Claim 3 presents a policy-based data management system. *See Spec. pgs. 17-22, Figs. 3 and 4.* Appellant respectfully asserts that Claim 3 contains substantially similar subject matter for the purposes of evaluating allowability to Claim 17. Beyond the system of claim 1, the

system of claim 3 includes the file evaluation module configured to assign the storage pool to the file based on the service class. *See Spec.* pg. 18, ll. 21-27, pg. 19, ll. 1-2, Fig. 3.

The following quotation of Claim 3 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 3 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

3. The policy-based data management system of claim 1, wherein the file evaluation module is configured to assign the storage pool to the file based on the service class. *See Spec.* pg. 18, ll. 21-27, pg. 19, ll. 1-2, Fig. 3.

Claim 4 presents a policy-based data management system. *See Spec.* pgs. 17-22, Figs. 3 and 4. Appellant respectfully asserts that Claim 4 contains substantially similar subject matter for the purposes of evaluating allowability to Claim 18. Beyond the system of claim 2, the system of claim 4 includes the policy set comprising at least one storage pool rule, and the file evaluation module configured to automatically apply the storage pool rule to assign the storage pool to the file. *See Spec.* pg. 14, ll. 25-26, pg. 15, ll. 1-2, Fig. 2

The following quotation of Claim 4 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 4 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

4. The policy-based data management system of claim 2, wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file. *See Spec.* pg. 14, ll. 25-26, pg. 15, ll. 1-2, Fig. 2

Claim 9 presents a metadata server for carrying out policy-based management. The metadata server comprises a processor. The metadata server further comprises a memory configured to store computer code, the computer code comprising a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file. The metadata server further comprises a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients of varying computing platforms.

The following quotation of Claim 9 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 9 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

9. A metadata server for carrying out policy-based management, the metadata server comprising:

a processor; and (*See Spec.* pg.11, ll. 9-12, Fig. 1)

a memory configured to store computer code comprising: (*See Spec.* pg.11, ll. 9-12, Fig. 1)

a policy set comprising at least one service class rule; (*See Spec.* pg. 14, ll. 18-20, Fig. 2)

a file evaluation module configured to apply the service class rule to assign a service class to a file; (*See Spec.* pg. 18, ll. 12-20, Fig. 3 element 350.)

a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients of varying computing platforms. (*See Spec.* pg. 20, ll. 3-26, pg. 21, ll. 1-18, Fig. 4 element 125 (*as a metadata server.*))

Claim 12 presents a client for carrying out policy-based management. The client comprises a processor. The client further comprises a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file. The client further comprises a file usage module configured to control handling of the file based on the service class.

The following quotation of Claim 12 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 12 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

12. A client for carrying out policy-based management, comprising: (*See Spec.* pg. 10, ll. 24-27, pg. 11, ll. 1-5, Fig. 1)

a processor; (*See Spec.* pg. 10, ll. 24-27, pg. 11, ll. 1-5, Fig. 1)

a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file; and (*See Spec.* pg. 11, ll. 6-7, pg. 18, ll. 12-20, Figs. 1 and 3)

a memory configured to store computer code comprising a file request transmission module configured to request receipt of the file from a storage pool; and (*See Spec.* pg. 17, ll. 22-25, Fig. 3, and pg. 20, ll. 9-12, Fig. 4)

a file usage module configured to control handling of the file based on the service class. (*See Spec.* pg. 21, ll. 1-5, Fig. 4)

Claim 15 presents a method for handling files within a policy-based data management system. The method comprises providing a policy set comprising at least one service class rule. The method further comprises receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms. The method further comprises applying the service class rule to the file to assign a service class to the file. The method further comprises conducting operations on the file in a manner according to the service class.

The following quotation of Claim 15 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 15 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

15. A method for handling files within a policy-based data management system, the method comprising: (*See Spec.* pg. 23, ll. 3-6, Fig. 6)
 - providing a policy set comprising at least one service class rule; (*See Spec.* pg. 23, ll. 9-11, Fig. 6, step 620)
 - receiving one or more file attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms; (*See Spec.* pg. 23, ll. 16-18, Fig. 6, step 630)
 - applying the service class rule to the file to assign a service class to the file; and (*See Spec.* pg. 23, ll. 19-27, Fig. 6, steps 650, 660, 670, *See also* Figs. 7, 8 and related descriptions)

conducting operations on the file in a manner according to the service class. (*See Spec.* pg. 23, ll. 27, pg. 24, ll. 1-2, pg. 243-6, Fig. 6 steps 680, 690)

Claim 23 presents a computer readable medium comprising computer code configured to carry out a method. The method comprises providing a policy set comprising at least one service class rule. The method further comprises receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms. The method further comprises applying the service class rule to the file to assign a service class to the file. The method further comprises conducting operations on the file in a manner according to the service class.

The following quotation of Claim 23 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 23 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

23. A computer readable medium comprising computer code configured to carry out a method comprising: (*See Spec.* pg. 23, ll. 3-6, Fig. 6)
providing a policy set comprising at least one service class rule; (*See Spec.* pg. 23, ll. 9-11, Fig. 6, step 620)
receiving one or more file attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms; (*See Spec.* pg. 23, ll. 16-18, Fig. 6, step 630)
applying the service class rule to the file to assign a service class to the file; and (*See Spec.* pg. 23, ll. 19-27, Fig. 6, steps 650, 660, 670, *See also* Figs. 7, 8 and related descriptions)
conducting operations on the file in a manner according to the service class. (*See Spec.* pg. 23, ll. 27, pg. 24, ll. 1-2, pg. 243-6, Fig. 6 steps 680, 690)

Claim 26 presents a policy-based data management system for an open systems environment. The system includes at least one service class rule. *See Spec.* pg. 14, ll. 18-24, Figure 2.

The system further includes means for applying the service class rule to assign a service class to a file. Spec. at Claim 26. A service class selection module 352, which may be a computer readable medium comprising computer code performing the steps of Figure 7 is one example of a means for applying the service class rule to assign a service class to a file. *See* Spec. pg. 23, ll. 19-23, pg. 24, ll. 6-27 and pg. 25, ll. 1-4, Figs. 3, 6, and 7.

The system further includes means for controlling handling of the file based on the service class. A metadata server 125 storing and/or retrieving a file according to file metadata 360 is one example of a means for controlling handling of the file based on the service class. *See* Spec. pg. 21, ll. 25-27, pg. 22, ll. 1-7, Fig. 4, *See also* Figs. 6, 8, 9 and related descriptions.

The system further includes means for communicating with a plurality of clients comprising at least two different computing platforms. A metadata server 125 receiving communications from clients 102-108, where the communications occur in a universal format, or are translated by a translation module 330, where the clients include at least two different computing platforms, is one example of a means for communicating with a plurality of clients comprising at least two different computing platforms. *See* Spec. pg. 10, ll. 24-27, pg. 11, ll. 1-5, pg. 20, ll. 12-18, Figs. 1 and 4.

Claim 27, depending upon Claim 26, presents a means for assigning a storage pool to the file based on the attributes of the file. A storage pool selection module 354, which may be a computer readable medium comprising computer code performing the steps of Figure 8 is one example of a means for assigning a storage pool to the file based on the attributes of the file. *See* Spec. pg. 18, ll. 26-27, pg. 19, ll. 1-2, pg. 25, ll. 5-26, pg. 26, ll. 1-9, Figs. 3 and 8.

The following quotation of Claim 26 includes reference numerals and parenthetical references to representative examples of the elements and components recited in Claim 1 in compliance with 37 C.F.R. 41.37 (c)(1)(v).

26. A policy-based data management system for an open systems environment, the system comprising:
 - at least one service class rule; (*See* Spec. pg. 14, ll. 18-24, Figure 2)
 - means for applying the service class rule to assign a service class to a file; (*See* Spec. pg. 23, ll. 19-23, pg. 24, ll. 6-27 and pg. 25, ll. 1-4, Figs. 3, 6, and 7)

means for controlling handling of the file based on the service class; (*See* Spec. pg. 21, ll. 25-27, pg. 22, ll. 1-7, Fig. 4, *See also* Figs. 6, 8, 9 and related descriptions)

means for communicating with a plurality of clients comprising at least two different computing platforms. (*See* Spec. pg. 10, ll. 24-27, pg. 11, ll. 1-5, pg. 20, ll. 12-18, Figs. 1 and 4)

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Whether the Examiner failed to establish a prima facie case of obviousness under 35 U.S.C. § 103(a) for Claims 1-27 where the limitations of the claims are not taught or suggested within the combination of *Kondo* and *Nowatzki*.

II. Whether the factual inquiries of obviousness taught by Graham support a conclusion that the present invention is obvious over *Kondo* in view of *Nowatzki*.

III. Whether *Kondo* is a proper reference to cite for a § 103(a) rejection where *Kondo* and is non-analogous art to the present invention.

7. ARGUMENT

I. The Examiner failed to establish a prima facie case of obviousness under 35 U.S.C. § 103(a) because *Kondo* in combination with *Nowatzki* does not teach every element of Claim 1-27.

Claims 1-27

A. Independent Claims 1, 9, 12, 15, 23, and 26

Appellant respectfully submits that Claim 1 contains allowable subject matter representative of allowable subject matter in independent claims 9, 12, 15, 23, and 26. Appellant respectfully submits that Claim 1 is patentable over *Kondo* in view of *Nowatzki*. Claim 1 states:

A policy-based data management system comprising:

a policy set comprising at least one service class rule;

a file evaluation module configured to apply the service class rule **to assign a service class to a file**²;

a file usage module configured **to conduct operations on the file**³ in a manner directed by the service class; and

a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms.

(emphasis added)

Kondo, in general, teaches a system for displaying a percentage of an entire available amount of data that is retrieved according to user specified retrieval conditions. *Kondo*, col. 2, ll. 6-10, 26-33. *Kondo* classifies files according to selected file attributes, and stores classification methods of file attributes. *Kondo*, col. 2, ll. 39-41, 49-50. The file attributes are pre-existing attributes of files including, as examples, “file name”, “size”, “type”, “creator”, and “date.” *Kondo*, col. 6, ll. 47-57, Fig. 9. Because *Kondo* provides a user with a percentage of data retrieved from a total amount of data available, “missing of the target data in narrowing down

² A similar limitation to this element occurs in claims 9, 12, 15, 23, and 26.

³ A similar limitation to this element occurs in claims 15 and 23.

data can be suppressed.” *Kondo*, col. 8, ll. 34-40. *Kondo* displays to the user “display elements” which show the user the number of data elements in a group as filtered according to the user specified retrieval conditions. *Kondo*, col. 4, ll. 60-67, col. 5, ll. 1-2. Thus, *Kondo* provides a convenient method of filtering data that allows a user to understand the percentage of an entire data set that is retrieved according to user specified filter criteria. *Kondo*, Background section, and col. 2, ll. 6-22.

The present invention teaches assigning a service class to a file. Claim 1. The service class is new data assigned to the file (Spec. Fig. 3, File Metadata 360 including Service Class 364), not merely a sorting of pre-existing data (i.e. “file attributes”) as taught within *Kondo*. A service class is a grouping or categorization of the files according to some criteria such as operational requirements, resource requirements, etc. See Specification page 15, ll. 5- page 16, ll. 5, Figures 2 and 4.

The Final Office Action is not clear on which element of *Kondo* is asserted to be the “service class,” but instead merely asserts generally that a “service class” occurs in *Kondo* col. 4, ll. 33-60. It may be that the Final Office Action intends “file attributes” to be equivalent to a “service class.” Appellant is left to guess. However, file attributes are intrinsic properties of a file, and cannot be assigned to a file. Further, *Kondo* does not even disclose assigning file attributes to a file.

In the section of the Final Office Action labeled “Response to Arguments,” the Final Office Action seems to suggest that “a file evaluation module configured to apply the service class rule to assign a service class to a file” can be found in *Kondo* col. 6, ll. 37-43, reading “when receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202.” Appellant respectfully asserts that the asserted section of *Kondo* discloses a user selecting a filter criteria for a group of files, not assigning a service class to a file. For example, after the suggested step of *Kondo* is performed, a list of data from a database may be narrowed according to user-selected criteria (*Kondo*, Figure 7), but nothing is assigned to any file. If anything is preserved in *Kondo*, it is a “new classification method”, but the classification method is not assigned to a file. *Kondo*, Figure 7, step S205. By contrast, in

the present invention, when a service class is assigned to a file, a change in the file metadata occurs (Figure 3 element 360).

Further, the present invention teaches a “file usage module configured to conduct operations on the file in a manner directed by the service class.” Claim 1. This element is asserted by the Final Office Action to be within the section col. 4, lines 33-60 of *Kondo*. There are no file operations within *Kondo*, and further no file operations in a manner directed by or dictated by the service class. *Kondo* retrieves filenames for files having file attributes matching user specified retrieval conditions (*Nowatzki*, example, *Kondo*, col. 8, ll. 1-5), but *Kondo* does not disclose any file “reads”, “writes”, “opens”, “stores” or the like in the cited section, or any other section, of *Kondo*. *Kondo* discloses a “file management section 4” on *Kondo* Figure 1, but the only listed function of this component is to perform “database retrieval”, the result of which is, for example, a list of file names. *Kondo*, col. 7, ll. 21-25, 46-65, Figs. 1 and 10.

As described above, Appellant respectfully asserts that *Kondo* in combination with *Nowatzki* does not disclose the elements “**to assign a service class to a file**” and “**to conduct operations on the file in a manner directed by the service class**” from the present invention. Appellant respectfully requests that the rejection of Claims 1, 9, 12, 15, 23, and 26 under 35 U.S.C. § 103(a) be withdrawn.

B. Dependent Claims 2, 10, 16, 24

Appellant respectfully asserts that Claim 2 contains allowable subject matter representative of allowable subject matter within Claims 10, 16, and 24. Appellant respectfully submits that Claim 2 is patentable over *Kondo* in view of *Nowatzki*. Claim 2 states:

The policy-based data management system of claim 1, wherein the file evaluation module is further configured **to automatically assign the file to a storage pool.**

(emphasis added)

The Final Office Action asserts that the elements of Claim 2 are disclosed within *Nowatzki* col. 5, lines 54-64. The cited section of *Nowatzki* discloses saving the contents of a buffer back to a file access control program automation server. *Nowatzki* col. 5, ll. 54-57. Claim 2 clearly indicates that *the file* (emphasis added) from Claim 1 is assigned to a storage pool, and *the file* is the file to which a service class has been assigned. *See*, Claims 1 and 2. It is not clear

how saving a buffer back to a file from *Nowatzki* would be associated with the element asserted to be *the file* from *Kondo*. *Kondo* does not load, read, or write files (*Nowatzki* above discussion under Claim 1), and the Appellant is therefore not clear on what saving a buffer from *Nowatzki* would add to *Kondo*. A buffer is typically a temporary storage mechanism to allow later access to otherwise volatile data, for example to allow application data to be shared between two platforms as in *Nowatzki*. See *Nowatzki*, col. 2, ll. 42-56, Fig. 3. By contrast, a storage pool may be a discrete physical unit, a plurality of physical units, or a part of a physical unit. See Spec. pg. 12, ll. 3-10. The storage pool may be a hard drive of various types or other type of physical storage. See Spec. pg. 12, ll. 11-27, pg. 13, ll. 1-11. Appellant respectfully submits that the combination of *Kondo* with *Nowatzki* does not disclose “assign[ing] a service class to a file, ... [and] assign[ing] the file to a storage pool” as required in Claim 2.

As described above, Appellant respectfully asserts that *Kondo* in combination with *Nowatzki* does not disclose the element “to automatically assign the file to a storage pool” from Claim 2. Further, Appellant respectfully asserts that Claim 2 is allowable as being dependent upon an allowable Claim 1 (or similar independent). Appellant respectfully requests that the rejection of Claims 2, 10, 16, and 24 under 35 U.S.C. § 103(a) be withdrawn.

C. Dependent Claims 3 and 17

Appellant respectfully asserts that Claim 3 contains allowable subject matter representative of allowable subject matter in Claim 17. Appellant respectfully submits that Claim 3 is patentable over *Kondo* in view of *Nowatzki*. Claim 3 states:

The policy-based data management system of claim 1⁴, wherein the file evaluation module is further configured **to assign the storage pool to the file based on the service class.**

(emphasis added)

The Final Office Action asserts that the elements of Claim 3 are disclosed within *Kondo* col. 6, lines 37-49. Appellant reasserts the arguments presented above with respect to Claims 1 and 2 that *Kondo* in combination with *Nowatzki* does not disclose assigning a service class to a

file, conducting operations on *the file*, or assigning a storage pool to the file. However, even if these elements are read into *Kondo* in combination with *Nowatzki*, there is no disclosure of assigning a storage pool to the file based on the service class.

The asserted “service class” in *Kondo* is simply a filtering criteria for a database, and the asserted “assigning a storage pool to the file” in *Nowatzki* is saving a buffer back to a file. *See Kondo*, col. 6, ll. 37-43, and *Nowatzki* col. 5, ll. 54-57. Such a comparison is improper and unreasonable.

The Final Office Action does not describe how the element from *Kondo* combines meaningfully with the element from *Nowatzki*, so the Appellant lacks any specific mechanism to evaluate whether the combination is an equivalent, whether it could work, and whether one of skill in the art would recognize the combination. Appellant asserts that the combination of a filtering criteria for a database with the saving of a buffer back to a file does not disclose “assign[ing] the storage pool to the file based on the service class.” Further, Appellant respectfully asserts that the combination of *Kondo* and *Nowatzki* suggested to match the limitations of Claim 3 does not appear to make anything useful at all.

As described above, Appellant respectfully asserts that *Kondo* in combination with *Nowatzki* does not disclose the element “to assign the storage pool to the file based on the service class” from Claim 3. Further, Appellant respectfully asserts that Claim 3 is allowable as being dependent upon an allowable Claim 1 (or Claim 15). Appellant respectfully requests that the rejection of Claims 3 and 17 under 35 U.S.C. § 103(a) be withdrawn.

D. Dependent Claims 4 and 18

Appellant respectfully submits that Claim 4 contains allowable subject matter representative of allowable subject matter in Claim 18. Appellant respectfully submits that Claim 4 is patentable over *Kondo* in view of *Nowatzki*. Claim 4 states:

The policy-based data management system of claim 2, wherein the policy set further comprises at least one storage pool rule, the file evaluation module further

⁴ As noted in the “Status of Amendments”, Appellant submits that this should read “... system of claim 2” (emphasis added). This appears to be the way the Final Office Action treated claim 3, and is the correct reading. Compare, e.g., claim 17 depending upon claim 16.

configured **to automatically apply the storage pool rule to assign the storage pool to the file.**

(emphasis added)

The Final Office Action asserts that the elements of Claim 4 are disclosed within *Kondo* col. 6, ll. 37-49. Appellant respectfully submits that the referenced sections of *Kondo* discuss filtering criteria for database elements – for example specifying a classification method for selecting database elements. *See Kondo*, col. 6, ll. 37-49. Appellant respectfully submits that no element bearing a similarity to a “storage pool rule” occurs within the referenced sections. Appellant respectfully asserts that *Kondo* in combination with *Nowatzki* does not disclose the element “to automatically apply the storage pool to assign the storage pool to the file” from Claim 4. Further, Appellant respectfully asserts that Claim 4 is allowable as being dependent upon an allowable Claim 1 (or Claim 15). Appellant respectfully requests that the rejection of Claims 4 and 18 under 35 U.S.C. § 103(a) be withdrawn

E. Dependent Claims 5-8, 11, 13-14, 19-21, 25, and 27

Appellant respectfully asserts that Claims 5-8, 11, 13-14, 19-21, 25, and 27 contain allowable matter not disclosed within *Kondo* in combination with *Nowatzki* for substantially similar reasons to those discussed in Claims 1-4 above. Further, Appellant asserts that Claims 5-8, 11, 13-14, 19-21, 25, and 27 are allowable as being dependent upon allowable claims. Appellant respectfully requests that the rejection of Claims 5-8, 11, 13-14, 19-21, 25, and 27 under 35 U.S.C. § 103(a) be withdrawn.

F. Dependent Claim 22

Appellant respectfully asserts that Claim 22 is allowable as being dependent upon allowable Claim 15. Appellant respectfully requests that the rejection of Claim 22 under 35 U.S.C. § 103(a) be withdrawn.

II. The factual inquiries taught by Graham indicate the present invention is non-obvious over *Kondo* in view of *Nowatzki*.

Graham teaches four factual inquiries that help resolve whether an invention is obvious over asserted references while avoiding improper hindsight. The four *Graham* factors are summarized below.

1. Determine the scope and content of the prior art.
2. Determine the differences between the prior art and the claims at issue.
3. Resolve the level of ordinary skill in the pertinent art.
4. [S]econdary considerations ... might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

see Graham v. John Deer Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966), *affirmed by KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

The scope and content of the prior art is discussed above for *Kondo* under the arguments regarding claim 1. *Kondo* is a data record filtering technology that allows a user to better estimate whether each of the relevant data records, which may be files, is listed within a subset of an entire set of data records. *See Kondo*, col. 2, ll. 6-22. *Kondo* utilizes user-specified retrieval conditions to determine which files are listed after filtering. *See Kondo*, col. 2, ll. 11-15, ll. 26-33. Significantly, *Kondo* teaches only looking at file attributes, and only in the context where the relevant data records are files, but *Kondo* does not teach accessing, changing, or storing files. *See Kondo*, col. 2, ll. 26-67 and col. 3, ll. 1-40 (i.e. the SUMMARY OF THE INVENTION). *Nowatzki* is an implementation of utilities that allow programs to function across multiple computer platforms. *See Nowatzki*, col. 1, ll. 33-40. *Nowatzki* implements automated communication protocols, and buffering of communication data to enable the intended functions. *See Nowatzki*, col. 2, ll. 18-57.

The present invention includes a data storage system that assigns a file to a storage pool in a distributed storage pool environment based on an assigned service class of the file, and in some embodiments on the characteristics of the various available storage pools. *See Claims 1-4*. The present invention in some embodiments includes performing file operations on the file, including storing the file on the assigned storage pool. *See, e.g., Claim 15*.

Kondo as combined with *Nowatzki* would appear to provide a data record filtering technology that could work across multiple computer platforms. However, within *Kondo* and *Nowatzki*, there is no concept of a service class, nor are the files assigned to a storage pool. There is no element within *Kondo* that can be carried over to *Nowatzki* for assignment to a storage pool, because *Kondo* in the most relevant embodiment produces only a list of file names and a percentage of the total file names that are present. *See Kondo*, col. 2, ll. 26-67 and col. 3, ll. 1-40 (i.e. the SUMMARY OF THE INVENTION). Thus, there is a stark gap between the elements and functions of *Kondo* combined with *Nowatzki* and the present invention.

Resolving the level of skill in the pertinent art is difficult because the Appellant asserts that *Kondo* is not analogous art to the present invention. One of skill in the art would need to look to *Kondo* (a method of filtering database records), and *Nowatzki* (a method of operating programs across platforms), and deduce the present invention (a method of optimizing a distributed storage system based on – for example – file priorities and storage pool capabilities). Appellant notes that those in the database arts and software art generally have a college degree in computer science and may have additional advanced degrees. Appellants submit that such highly educated members of this art would recognize that *Kondo* is nonanalogous and that the missing elements of the claimed invention are not present in *Kondo* or *Nowatzki*. Appellant respectfully asserts that the invention presented in the pending claims is sufficiently distinct from the prior art taught in *Kondo* and *Nowatzki* to constitute a nonobvious improvement. As the Examiner has noted, *Kondo* fails to teach operation on different platforms. While the Examiner relies on *Nowatzki* for these elements, Appellant disagrees.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *In re Keler*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). As noted above, *Kondo* does not disclose a service class nor that the files are assigned to a storage pool. As such, one of ordinary skill in the art would have to determine that the apparatus/method disclosed in *Kondo*, with modifications, could be used in the manner recited in the claims.

Why would one of skill in the art with knowledge of *Kondo* and *Nowatzki* decide to use a service class and assign files to a storage pool? *Kondo* provides no teaching of service classes. A service class is a grouping or categorization of the files according to some criteria such as

operational requirements, resource requirements, etc. See Specification page 15, ll. 5- page 16, ll. 5, Figures 2 and 4. Therefore, one of skill in the art would find no reason to implement assignment of a service class to a file in *Kondo* since *Kondo* deals with filtering of data from a database. Doing so is a completely new concept in the context of *Kondo*. *Nowatzki* deals with files but has no teaching of assignment of a file to a storage pool.

Applicants submit that one of skill in the art would have no reason to consider categorization of files based on a service class since *Kondo* teaches simple filtering of files based on an pre-existing attribute of a file. In contrast, the files of the present invention may be assigned a service class based on factors other than attributes of the file (e.g. two files with the same pre-existing attributes may be in different service classes based on the non-attribute factors such as which communication link is being used – high speed links may be reserved for particular service classes). Classification of files such as in *Kondo* does not make sense since each file in a search has just as high a probability of being the one sought after. Therefore, *Kondo* cannot treat one file in the search results different from another based on a classification.

Furthermore, Appellant respectfully notes that the rejections of the claim elements do not specify which elements of *Kondo* relate to which elements of the present invention, and it is not even clear to the Appellant, with the present invention in hand, to assemble the invention from *Kondo* in view of *Nowatzki*.⁵ For example, Claim 1 is rejected for *Kondo* disclosing the element “a file usage module configured to conduct operations on a file in a manner directed by the service class” within col. 4, ll. 33-60. See Final Office Action, page 2, numbered paragraph 3. Assuming for a moment that a “service class” is present in *Kondo*, *Kondo* does not perform file operations but only lists file names. The inclusion of a file operations element based on *Kondo* cannot be obvious. If the present invention cannot be assembled even utilizing improper hindsight, the objective evidence should be weighed heavily towards non-obviousness.

Appellant respectfully submits that each factor of the four-factor Graham test weighs in favor of a finding of non-obviousness of the present invention over *Kondo* in view of *Nowatzki*. Appellant respectfully requests that the rejections of Claims 1-27 under 35 U.S. § 103(a) be withdrawn.

⁵ Appellant notes that merely assembling the invention from a collection of references would not be “guard[ing] against the use of hindsight.” See *Graham v. John Deere*, 383 U.S. 1, at 36 (1966).

III. *Kondo* is not a proper reference for a § 103(a) rejection because it is non-analogous art to the present invention.

A. The *Kondo* reference is non-analogous art and thus is not a valid reference for a § 103 reference.

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. MPEP § 2141.01(a)(I.) Determining whether a cited reference is analogous requires a two-step process. *In re Deminski*, 796 F. 2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a)(I.) The first step is to determine if the reference is within the inventor’s field of endeavor. *Id.* If so, then the reference is analogous. *Id.* If the reference is not within the inventor’s field of endeavor, the second step is to determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *Id.*

The first question, whether the reference is in the inventor’s field of endeavor is narrow in scope. It is not sufficient that the reference and the claimed invention are both in the “data management” art as demonstrated by *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). The Wang decision is cited in detail at MPEP 2141.01(a) – ANALOGY IN THE ELECTRICAL ARTS:

“Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random- access-memories or read-only-memories, the finding that

the reference was nonanalogous was supported by substantial evidence.” MPEP 2141.01(a)

Thus, a reference to a memory module was found not to be in the field of endeavor for an invention relating to SIMMs for installation on a printed circuit motherboard. The fact that the claimed inventions were for personal computers rather than industrial computers and for random access memory rather than static memory were sufficient distinctions to remove the claimed invention from the same field of endeavor as the cited reference.

The differences found between the present invention and *Kondo* are far greater than the differences in *Wang*. *Kondo* is a method for filtering records in a database, including filtering files in a file management system according to various intrinsic file attributes, such that a user can get an estimate of whether all appropriate records are listed. *Kondo*, col. 2, ll. 6-22. The present invention is a method for storing files on a distributed storage system according to service class information, including file priority and other user-created metadata, such that the performance of a data storage system is increased and the expense of the data storage system is reduced. These are not fields of art that one of ordinary skill would be expected to traverse.

The second part of the two-part test for analogous art requires that the cited reference be reasonably pertinent to the particular problem with which the inventor was involved. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). To answer this question, the purpose of the reference and the claimed invention are compared.

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *See also In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it

deals, logically would have commended itself to an inventor's attention in considering his problem.") from MPEP § 2141.01(a)(I.)

The problem being solved in *Kondo* involves ensuring that as many relevant members of a data set are found upon applying a filtering criteria. *See Kondo*, col. 2, ll. 6-22. The present invention involves improving the efficiency and reducing the cost of a data storage system, particularly in a heterogenous platform. *See Spec.*, pgs. 2 and 3. Appellant respectfully submits that one of ordinary skill in the art would not be drawn to *Kondo* to solve the very different problems of the present invention.

For the above reasons, Appellant respectfully submits that the references should not be combined as *Kondo* is non-analogous art, and that the rejection of Claims 1-27 is therefore improper. Appellant respectfully requests that the rejection under 35 U.S.C. § 103(a) for each Claim 1-27 be withdrawn.

SUMMARY

In view of the foregoing, Appellant respectfully asserts that each of the claims on appeal have been improperly rejected because the Examiner has not established a *prima facie* case of obviousness for Claims 1-27. Therefore, Appellant respectfully requests reversal of the Examiner's rejections under 35 U.S.C. § 103(a), and urges that pending Claims 1-27 are ready for prompt allowance.

Respectfully submitted,

/David J. McKenzie/_____

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8. **CLAIMS APPENDIX**

The claims involved in the appeal, namely Claims 1-27, are listed below.

1. A policy-based data management system comprising:
a policy set comprising at least one service class rule;
a file evaluation module configured to apply the service class rule to assign a service class to a file;
a file usage module configured to conduct operations on the file in a manner directed by the service class; and
a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms.
2. The policy-based data management system of claim 1, wherein the file evaluation module is further configured to automatically assign the file to a storage pool.
3. The policy-based data management system of claim 1, wherein the file evaluation module is configured to assign the storage pool to the file based on the service class.
4. The policy-based data management system of claim 2, wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file.

5. The policy-based data management system of claim 2, wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool.
6. The policy-based data management system of claim 1, wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class.
7. The policy-based data management system of claim 1, further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class.
8. The policy-based data management system of claim 1, wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390.
9. A metadata server for carrying out policy-based management, the metadata server comprising:
 - a processor; and
 - a memory configured to store computer code comprising:

a policy set comprising at least one service class rule;

a file evaluation module configured to apply the service class rule to assign a service class to a file; and

a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients of varying computing platforms.

10. The metadata server of claim 9, wherein the file evaluation module is further configured to automatically assign the file to a storage pool.

11. The metadata server of claim 9, further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class.

12. A client for carrying out policy-based management, comprising:

a processor;

a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module

configured to apply the service class rule to assign a service class to a file; and

a memory configured to store computer code comprising a file request

transmission module configured to request receipt of the file from a storage pool;

and

a file usage module configured to control handling of the file based on the service class.

13. The client of claim 12, wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file.
14. The client of claim 12, wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme of the client for a file based on the service class assigned to the file.
15. A method for handling files within a policy-based data management system, the method comprising:
 - providing a policy set comprising at least one service class rule;
 - receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms;
 - applying the service class rule to the file to assign a service class to the file; and
 - conducting operations on the file in a manner according to the service class.
16. The method of claim 15, further comprising assigning a storage pool to the file.

17. The method of claim 16, wherein assigning the storage pool to the file comprises assigning the storage pool to the file based on the at least one service class.
18. The method of claim 16, wherein the policy set further comprises at least one storage pool rule, wherein assigning the storage pool to the file comprises applying the storage pool rule to the characteristics of the available storage pools to assign the storage pool to the file.
19. The method of claim 16, wherein assigning the storage pool to the file comprises selecting the storage pool from a group of storage pools of the open systems environment, the group of storage pools each comprising at least two different disaster recoverability levels.
20. The method of claim 15, wherein controlling handling of the file based on the service class comprises taking action on at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, in a manner in accordance with the service class.
21. The method of claim 15, wherein the service class rule is applied to the one or more file attributes to select the service class.

22. The method of claim 15, wherein the computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390, wherein the method further comprises translating the one or more attributes.
23. A computer readable medium comprising computer code configured to carry out a method comprising:
- providing a policy set comprising at least one service class rule;
 - receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms;
 - applying the service class rule to the file to assign a service class to the file; and
 - conducting operations on the file in a manner according to the service class.
24. The computer readable medium of claim 23, wherein the computer code is further configured to assign a storage pool to the file.
25. The computer readable medium of claim 23, wherein the service class rule bases selection of the service class on the one or more file attributes.
26. A policy-based data management system for an open systems environment, the system comprising:
- at least one service class rule;
 - means for applying the service class rule to assign a service class to a file;
 - means for controlling handling of the file based on the service class;

means for communicating with a plurality of clients comprising at least two different computing platforms.

27. The policy-based data management system of claim 26, further comprising means for assigning a storage pool to the file based on attributes of the file.

9. EVIDENCE APPENDIX

There is no material to be included in the Evidence Appendix.

10. RELATED PROCEEDINGS APPENDIX

There is no material to be included in the Related Proceedings Appendix.

Electronic Patent Application Fee Transmittal

Application Number:	10389408			
Filing Date:	14-Mar-2003			
Title of Invention:	System, method, and apparatus for policy-based data management			
First Named Inventor/Applicant Name:	James Vernon Carlson			
Filer:	David McKenzie			
Attorney Docket Number:	SJO920020041US1			
Filed as Large Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Filing a brief in support of an appeal	1402	1	500	500
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				500

Electronic Acknowledgement Receipt

EFS ID:	1866215
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	David McKenzie
Filer Authorized By:	
Attorney Docket Number:	SJO920020041US1
Receipt Date:	12-JUN-2007
Filing Date:	14-MAR-2003
Time Stamp:	19:39:11
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 500
RAM confirmation Number	3710
Deposit Account	090466
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Appeal Brief Filed	SJO920020041US1_Appeal_Brief.pdf	501155	no	32

Warnings:

Information:

2	Fee Worksheet (PTO-06)	fee-info.pdf	8165	no	2
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Warnings:

Information:

Total Files Size (in bytes):	509320
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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.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229
45216	7590	10/10/2007	EXAMINER	
Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			MIRZA, ADNAN M	
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The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/389,408
Filing Date: March 14, 2003
Appellant(s): CARLSON ET AL.

David J. McKenzie
For Appellant

Microsoft Ex. 1002, p. 171
Microsoft v. Daedalus Blue
IPR2021-00831

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/12/2007 appealing from the Office action mailed.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Prior Art Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,519,865	Kondo et al
6,594,689	Nowatzki et al

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (U.S. 5,519,865) and further in view of Nowatzki et al (U.S. 6,594,689).

3. As per claims 1,9 Kondo disclosed policy-based data management system comprising: a policy set comprising at least one service class rule; a file evaluation module configured to apply the service class rule to assign a service class to a file; a file usage module configured to conduct operations on the file in a manner directed by the service class; (col. 4, lines 33-60)

However Kondo did not disclose in detail, “a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms”.

In the same field of endeavor Nowatzki disclosed, “similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform (col. 4, lines 11-16).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform as taught by Nowatzki in the method of Kondo to make the system more versatile reduce latency and cost.

4. As per claims 2,10,16,24 Kondo-Nowatzki disclosed wherein the file evaluation module is further configured to automatically assign the file to a storage pool (Nowatzki, col. 5, lines 54-64).
5. As per claims 3,17 Kondo-Nowatzki disclosed wherein the file evaluation module is configured to assign the storage pool to the file based on the service class (Kondo, col. 5, lines 17-34).

6. As per claims 4,18 Kondo-Nowatzki disclosed wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply the storage pool rule to assign the storage pool to the file (Kondo, col. 6, lines 37-49).

7. As per claims 5,19 Kondo-Nowatzki disclosed wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool (Kondo, col. 6, lines 37-49).

8. As per claims 6,20 Kondo-Nowatzki disclosed wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class (Nowatzki, col. 4, lines 55-61).

9. As per claims 7,21,25,27 Kondo-Nowatzki disclosed further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class (Kondo, col. 5, lines 17-34).

10. As per claims 8,22 Kondo-Nowatzki disclosed wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390 (Nowatzki, col. 3, lines 39-43).

11. As per claim 11 Kondo-Nowatzki disclosed further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

12. As per claims 12,15,23,26 Kondo-Nowatzki disclosed a processor; a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file (Nowatzki, col. 4, lines 33-60); and a memory configured to store computer code comprising a file request transmission module configured to request receipt of the file from a storage pool; and a file usage module configured to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

13. As per claim 13 Kondo-Nowatzki disclosed wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file (Kondo, col. 6, lines 37-49).

14. As per claim 14 Kondo-Nowatzki disclosed wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, a performance priority, and cache allocation scheme of the client for a file based on the service class assigned to the file (Nowatzki, col. 4, lines 55-61).

(10) Response to Arguments

As to applicants arguments the response are as follows:

A. Applicant argued that Examiner fails to make a prima facie case of obviousness because Kondo in combination with Nowatski fails to teach or suggest all of the claim limitations recited in claim 1.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Nowatzki and Kondo are combine to make the system more versatile reduce latency and cost.

B. Applicant argued that Kondo did not disclose, " storage operations or levels of service provided by storage systems".

As to applicant's argument Kondo disclosed, "Since the history management retains the retrieval conditions in executed classification in the history information storage section as history

information, classification can be reproduced in response to a user request (col. 3, lines 33-37).

One ordinary skill in the art at the time of the invention knows that history management is also interpreted as storage management where history management storing data to be able to use in the future and it performs the same functionality as history management.

C. Applicant argued that Kondo fails to disclose, “A file evaluation module configured to apply the service class rule to assign a service class to a file”.

A to applicant’s argument Kondo disclosed, “when receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202 (col. 6, lines 37-43). One ordinary skill in the art at the time of the invention knows that running file evaluation module that consist of a number of Instructions or commands to assigning service classes to a file. Regarding Kondo one ordinary skill in the art at the time of the invention knows that Instruction classifying the method registration information registered in the classification information storage section.

D. Applicant argued that Kondo does not disclose, “Any file reads, writes, opens, stores or the like in the cited section”.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Any file reads, writes, opens, stores or the like in the cited section) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

E. Applicant argued that Kondo does not disclose, "Assigning file attributes to a file".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Assigning file attributes to a file) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

F. Applicant argued that Kondo in combination with Nowatzki does not disclose the element "to automatically assign the file to a storage pool".

As to applicant's argument Kondo in combination with Nowatzki disclosed, "the contents of buffer are saved and are written back to file access control program B via CP automation server. User ID file is then upgraded with new results via interface (col. 5, lines 54-58)". One ordinary

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skill in the art at the time of the invention that contents of the buffer saving via automation server interpreted as assigning the file to a storage pool where as file has certain content or information or data.

Applicant's arguments filed 02/07/2007 have been fully considered but they are not persuasive.

Response to applicant's argument is as follows.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reason, it is believed that the rejections should be sustained.

Respectfully submitted,

AM

Adnan Mirza

September 05, 2007

Conferees

KUNZLER & MCKENZIE

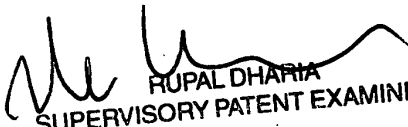
EAST BROADWAY

SUITE 600

SALT LAKE CITY, 4184



JASON CARDONE
SUPERVISORY PATENT EXAMINER



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

Index of Claims



Application/Control No.

10/389,408

Examiner

Adnan M. Mirza

Applicant(s)/Patent under Reexamination

CARLSON ET AL.

Art Unit

2145

✓	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted by either submission using the EFS WEB submission system, fax to the U.S. Patent and Trademark office to fax number 571-273-8300, or is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to on December 10, 2007.

/David J. McKenzie/
Attorney for Applicant

PATENT

Docket No.SJO920020041US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Carlson, et al.)	
)	
Serial No.:	10/389,408)	
Conf. No.:	1229)	Group Art
)	Unit: 2145
Filed:	March 14, 2003)	
)	
For:	SYSTEM, METHOD, AND APPARATUS FOR)	
	POLICY-BASED DATA MANAGEMENT)	
Examiner:	Adnan M. Mirza		

REPLY BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

This Reply Brief is in response to the Examiner’s Answer mailed on October 10, 2007. The USPTO received Appellant’s timely Notice of Appeal on April 12, 2006 and Appeal Brief on June 12, 2007, which was filed in response to the Final Office Action mailed December 13, 2006. Appellant appeals the rejection of pending Claims 1-27. This Reply Brief is being filed under the provisions of 37 C.F.R. § 41.41. The filing fee set forth in 37 C.F.R. § 41.20(b)(2) of \$500.00 has already been paid. The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or to credit any overpayment, to Deposit Account No. 09-0466.

1. REAL PARTY IN INTEREST

The Examiner agrees with Appellant's statement contained in the brief.

2. RELATED APPEALS AND INTERFERENCES

The Examiner agrees with Appellant's statement contained in the brief.

3. STATUS OF CLAIMS

The Examiner agrees with Appellant's statement contained in the brief.

4. STATUS OF AMENDMENTS

The Examiner agrees with Appellant's statement contained in the brief.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The Examiner agrees with Appellant's statement contained in the brief.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner agrees with Appellant's statement contained in the brief.

7. ARGUMENT

Response to Examiner's Answer

Appellant herein responds to the Examiner's Answer, and in particular, responds to the Examiner's response to the arguments presented by Appellant in its Appeal Brief. For convenience, this reply brief will address the Examiner's responses in substantially the same order they are addressed by the Examiner in section 10 of the Examiner's Answer labeled Response to Arguments.

A. The Examiner fails to make a *prima facie* case of obviousness

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2142 under the heading "ESTABLISHING A PRIMA FACIE CASE OF OBVIOUSNESS."

Appellant reiterates its argument that there is no teaching suggestion, or motivation to combine *Kondo* with *Nowatzki*. Appellant has explained in detail in its Appeal Brief that there is a lack of motivation to combine *Kondo* with *Nowatzki*, and the Examiner has continued to reply only with the unsupported, conclusory statement that "*Nowatzki* and *Kondo* are combine[d] to make the system more versatile [and] reduce latency and cost." See Examiner's Answer, § 10. Appellant is unable to find in the Examiner's Answer, in any previous Office Actions, or in the cited references, any evidence supporting the Examiner's conclusion that there is a motivation to combine the references.

In fact, Appellant fails to see how the "Multi-Platform Helper Utilities" in *Nowatzki* for "directly accessing data from... another computer platform" such as UNIX or Windows would in any way increase the versatility, reduce the latency time, or reduce the cost of the invention in

Kondo which is directed toward retrieving and classifying data in a database by displaying for the user a percentage of a retrieval result “occupying the whole operation and the effect when strict conditions are specified in an information retrieval.” See *Kondo*, col. 2, lines 26-33. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or **the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.**” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (emphasis added); MPEP § 706.02(j). In this case, the Examiner’s Answer and previous Office Actions have failed to present a convincing line of reasoning to support a conclusion of obviousness.

Additionally, with regard to reduced latency and reduced cost, Appellants note that it is unclear what the Examiner means by reduced latency. Appellants are unable to find in *Kondo* or *Nowatzki* any reference to latency or any suggestion that the teachings of either *Kondo* or *Nowatzki* would reduce latency in the event such a combination could be made. Appellant also fails to understand how such a combination, which would presumably require numerous additional components to implement, would reduce costs. Appellant submits that such a combination would actually increase costs.

B. *Kondo* fails to disclose storage operations or levels of service provided by storage systems

The Examiner’s Answer states that Appellant argued that *Kondo* did not disclose “storage operations or levels of service provided by storage systems.” Appellant maintains its argument that *Kondo* fails to disclose storage operations or levels of service, but notes that neither “storage operations” nor “levels of service” are recited in Claim 1. Instead Claim 1 recites the element of “a file usage module configured to conduct **operations on the file** in a manner **directed by the service class.**” Appellant argued in its appeal brief and reiterates here, that *Kondo* fails to disclose this element. Appellant further notes that the Examiner’s Answer fails to adequately address Appellant’s argument with regard to this element.

The Final Office Action states that this element is taught at col. 4, lines 33-60 of *Kondo*. However, there are no file operations taught in *Kondo*, and in particular, no file operations are conducted in *Kondo* **in a manner directed by or dictated by the service class**. *Kondo* does retrieve filenames for files having file attributes matching user specified retrieval conditions (*Nowatzki*, example, *Kondo*, col. 8, ll. 1-5), but *Kondo* does not disclose any file “reads”, “writes”, “opens”, “stores” or the like that are affected by a service class in the cited section, or any other section, of *Kondo*. The Examiner’s Answer states that file “reads”, “writes” etc. are not included and should not be read into Claim 1. Appellant agrees and notes that those examples merely demonstrate various types of operations that may be conducted “on the file” as recited in Claim 1.

Kondo does disclose a “file management section 4” in Figure 1, but the only listed function of this component is to perform “database retrieval”, the result of which is, for example, a list of file names. *Kondo*, col. 7, ll. 21-25, 46-65, Figs. 1 and 10. Appellant asserts that retrieving a list of file names from a database is not the same as conducting “operations on the file” as recited in Claim 1.

Furthermore, Appellant reiterates the argument that *Kondo* fails to disclose a service class, and therefore *Kondo* also fails to disclose conducting operations on the file in “a manner directed by the service class.” Art that does not include a service class cannot direct operations based on the non-existent service class.

C. *Kondo* fails to disclose “a file evaluation module configured to apply the service class rule to assign a service class to a file”

In response to Appellant’s argument that *Kondo* fails to disclose “a file evaluation module configured to apply the service class rule to assign a service class to a file,” the Examiner’s Answer cites column 6, lines 37-43 of *Kondo* which state, “When receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202.” The Examiner’s Answer then states that:

“one of ordinary skill in the art at the time of the invention knows that running [sic] file evaluation module that consist [sic] of a number of Instructions [sic] or commands [sic] to assigning service classes to a file. Regarding *Kondo* [sic] one [of] ordinary skill in the art at the time of the invention knows that Instruction classifying [sic] the method registration information registered in the classification information storage section.”

Appellant is unable to discern the argument being made in the Examiner’s response, however, with regard to the cited teachings in *Kondo*, Appellant maintains its argument that *Kondo* fails to disclose a service class. Appellant respectfully submits that the asserted section of *Kondo* discloses a user selecting a filter criteria for a group of files, not **assigning** a service class to a **file**. For example, after the suggested step of *Kondo* is performed, a list of data from a database may be narrowed according to user-selected criteria (*Kondo*, Figure 7), but nothing is assigned to any file. If anything is preserved in *Kondo*, it is a “new classification method”, but the classification method is not assigned to a file. *Kondo*, Figure 7, step S205. By contrast, in the present invention, when a service class is assigned to a file, a change in the file metadata occurs (Figure 3 element 360). The Examiner’s Answer appears to assert that running a file evaluation module that consists of a number of instructions or commands, is the same as assigning service classes to a file. If this is, in fact, what the Examiner is asserting, then Appellant respectfully disagrees with the Examiner’s characterization of a service class.

A service class is new data assigned to the file (Spec. Fig. 3, File Metadata 360 including Service Class 364), not merely a sorting of pre-existing data (i.e. “file attributes”) as taught within *Kondo*. A service class is a grouping or categorization of the files according to some criteria such as operational requirements, resource requirements, etc. See Specification page 15, ll. 5- page 16, ll. 5, Figures 2 and 4. Furthermore, in addition to failing to disclose a service class, *Kondo* also fails to disclose applying a service class rule to assign the service class to a file.

D. *Kondo* does not disclose any file reads, writes, opens, stores or the like.

As stated in section B above, Appellant agrees with the Examiner's characterization that file reads, writes, opens, stores, and the like are not limitations that should be read into the Claims. Rather, Appellant points to these as examples of "operations on a file" as recited in Claim 1. Appellant maintains its argument that *Kondo* fails to disclose these or any other "operations on a file" as recited in Claim 1, and therefore, *Kondo* fails to anticipate every element of Claim 1. It is well known, and recited in the Examiner's Answer, that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Appellant agrees that the aforementioned limitations should not be read into the claims unless recited, but Appellant further argues that the Examiner has failed to interpret the claims "in light of the specification."

E. *Kondo* does not disclose assigning file attributes to a file

The Examiner's Answer states that "assigning file attributes to a file" is a feature not recited in the rejected claims. Appellant agrees with the Examiner's characterization that the element of "assigning file attributes to a file" is not recited in and should not be read into the rejected claims. Appellant is not arguing that such an interpretation would be appropriate.

However, Claim 1 does recite applying a service class rule to "assign a **service class** to a file." Appellant notes that the Examiner's Answer has failed to adequately address the argument that *Kondo* fails to disclose a "service class" or that *Kondo* fails to disclose assigning a "service class" to a file. Appellant maintains its argument that "file attributes" are not the same as a "service class" as described in the specification, and even if "file attributes" are somehow construed as a "service class", then Appellant notes that *Kondo* fails to disclose **assigning** "file attributes" to a file. See Appeal Brief, p. 12, ¶ 4.

F. *Nowatzki* fails to disclose the element of Claim 2 “to automatically assign the file to a storage pool”

In response to Appellant’s argument that *Nowatzki* fails to disclose the element of automatically assigning the file to a storage pool, the Examiner cites column 5, lines 54-58 which states:

“The contents of buffer 134 are saved and are written back to file access control program B 124 via CP 2200 automation server 126. User ID file 128 is then upgraded with the new results via interface 132.”

The Examiner’s Answer states that “one [sic] ordinary skill in the art at the time of the invention [sic] that [sic] contents of the buffer saving via automation server [sic] interpreted as assigning the file to a storage pool where as [sic] file has certain content or information or data.” See p. 11. Appellant respectfully disagrees with the Examiner’s characterization of the prior art. Specifically, Using an automation server to upgrade User ID information does not anticipate automatically assigning a file to a storage pool. It is unclear exactly what the Examiner interprets as a “storage pool,” however Appellant asserts that a User ID is not a storage pool as recited in Claim 2. A User ID as used in *Kondo* does have information that includes the type of database accesses that the user is allowed to make, as well as the name and revision of the database the user is allowed to access, but *Kondo* does not assign any particular file to any particular storage pool. Furthermore, if the User ID is interpreted as a file, Appellant notes that the file is not assigned to any particular storage pool even if the contents of the file specify a particular database that a user may access.

SUMMARY

In view of the foregoing, Appellant respectfully asserts that each of the claims on appeal have been improperly rejected because the Examiner has not established a *prima facie* case of obviousness for Claims 1-27. Therefore, Appellant respectfully requests reversal of the Examiner's rejections under 35 U.S.C. § 103(a), and urges that pending Claims 1-27 are ready for prompt allowance.

Respectfully submitted,

/David J. McKenzie/

Date: December 10, 2007
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Salt Lake City, UT 84101
Telephone (801) 994-4646
Fax (801) 531-1929

David J. McKenzie
Reg. No. 46,919
Attorney for Applicant

8. CLAIMS APPENDIX

The Examiner agrees with Appellant's statement contained in the brief.

9. EVIDENCE APPENDIX

There is no material to be included in the Evidence Appendix.

10. RELATED PROCEEDINGS APPENDIX

There is no material to be included in the Related Proceedings Appendix.

Electronic Acknowledgement Receipt

EFS ID:	2570088
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	David McKenzie
Filer Authorized By:	
Attorney Docket Number:	SJO920020041US1
Receipt Date:	10-DEC-2007
Filing Date:	14-MAR-2003
Time Stamp:	17:05:24
Application Type:	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	Reply Brief Filed	SJO920020041US1_Reply_Brief.pdf	472894 <small>d8eb2d75a858cd37678cf6549b0e6ed56504ba6e</small>	no	10

Warnings:

Information:

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.



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Table with columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/389,408 03/14/2003 James Vernon Carlson SJO920020041US1 1229
45216 7590 02/11/2008 Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111
EXAMINER MIRZA, ADNAN M
ART UNIT 2145 PAPER NUMBER
MAIL DATE 02/11/2008 DELIVERY MODE PAPER

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10389408	3/14/03	CARLSON ET AL.	SJO920020041US1

Kunzler & McKenzie
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

ADNAN M. MIRZA

ART UNIT	PAPER
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2145 20071216

DATE MAILED:


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Commissioner for Patents

Reply Brief noted.

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145

PTO-90C (Rev.04-03)

Index of Claims 	Application/Control No. 10389408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.
	Examiner ADNAN M MIRZA	Art Unit 2145

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

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

CLAIM		DATE									
Final	Original	02/04/2008									
	1	A									
	2	A									
	3	A									
	4	A									
	5	A									
	6	A									
	7	A									
	8	A									
	9	A									
	10	A									
	11	A									
	12	A									
	13	A									
	14	A									
	15	A									
	16	A									
	17	A									
	18	A									
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	23	A									
	24	A									
	25	A									
	26	A									
	27	A									



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10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229
45216	7590	10/20/2008	EXAMINER	
Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			MIRZA, ADNAN M	
			ART UNIT	PAPER NUMBER
			2445	
			MAIL DATE	DELIVERY MODE
			10/20/2008	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte: JAMES CARLSON, LINDA DUYANOVICH,
DAVID NOWLEN, DAVID PEASE and MICHAEL WALKER

Application No. 10/389,408
Technology Center 2100

Mailed: October 20, 2008

Before KRISTA ZELE *Deputy Chief Appeals Administrator*
ZELE, *Deputy Chief Appeals Administrator*.

ORDER RETURNING UNDOCKETED APPEAL TO EXAMINER

This application was electronically received by the Board of Patent Appeals and Interferences on August 4, 2008. A review of the application revealed that it is not ready for docketing as an appeal. Accordingly, the application is herewith

Application No. 10/389,408

being returned to the Examiner to address the following matter requiring attention prior to docketing.

EXAMINER'S ANSWER, HEADINGS

A review of the file indicates that the Examiner's Answer filed October 10, 2007, does not comply with the guidelines provided in MPEP § 1207.02 because it does not contain all of the required heading items. Specifically, the Examiner's Answer must contain the following heading items in the following order:

- (1) *Real party in interest.*
- (2) *Related appeals and interferences.*
- (3) *Status of claims.*
- (4) *Status of amendments After Final.*
- (5) *Summary of claimed subject matter.*
- (6) *Grounds of rejection to be reviewed on appeal.*
- (7) *Claims Appendix.*
- (8) *Evidence Relied Upon.*
- (9) *Grounds of Rejection.*
- (10) *Response to Argument.*
- (11) *Related Proceedings Appendix.*

An in-depth review of the Examiner's Answer indicates that the following sections are missing from the Examiner's Answer mailed October

Application No. 10/389,408

10, 2007 and/or are not complete or clear in setting forth agreement or disagreement with the Appeal Brief:

- 1) "Summary of claimed subject matter",
- 2) "Grounds of rejection to be reviewed on appeal",
- 3) "Claims Appendix"; and
- 4) "Evidence Relied Upon".

A substitute Examiner's Answer that is in compliance with the guidelines is required. *See also Manual of Patent Examining Procedure* (MPEP) § 1207.02 (8th ed. Rev. 6, Sept 2007) for details.

CONCLUSION

Accordingly, it is

ORDERED that the application is returned to the Examiner to:

- 1) vacate the Examiner's Answer mailed October 10, 2007;
- 2) generate a new Examiner's Answer in compliance with the guidelines;
- 3) for such further action as may be required.

If there are any questions pertaining to this Order, please contact the Board of Patent Appeals and Interferences at 571-272-9797.

Application No. 10/389,408

KZ/tsj

Kunzler & McKenzie
8 EAST BROADWAY
SUITE 600
SALT LAKE, CITY UT 84111



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Row 2: 45216, 7590, 03/22/2010, Kunzler Needham Massey & Thorpe, 8 EAST BROADWAY, SUITE 600, SALT LAKE CITY, UT 84111
Row 3: EXAMINER, MIRZA, ADNAN M
Row 4: ART UNIT, PAPER NUMBER, 2445
Row 5: NOTIFICATION DATE, DELIVERY MODE, 03/22/2010, ELECTRONIC

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doCKET@kmiplaw.com



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10389408	3/14/2003	CARLSON ET AL.	SJO920020041US1

Kunzler Needham Massey & Thorpe
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

ADNAN MIRZA

ART UNIT	PAPER
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2445

20100303

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Commissioner for Patents

Please vacate the Examiner Answer dated 10/10/2007. Accept the following updated Examienr Answer.

/VIVEK SRIVASTAVA/
Supervisory Patent Examiner, Art Unit 2445

/ADNAN MIRZA/
Examiner, Art Unit 2445

PTO-90C (Rev.04-03)

**Microsoft Ex. 1002, p. 205
Microsoft v. Daedalus Blue
IPR2021-00831**



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/389,408
Filing Date: March 14, 2003
Appellant(s): CARLSON ET AL.

David J. McKenzie
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/12/2007 appealing from the Office action mailed.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of the amendments after final rejection contained in the brief is correct.

(5) *Summary of Claimed Subject Matter*

The summary of invention contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) *Claims Appendix*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) *Evidence Relied Upon*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,519,865	Kondo et al	05-1996
6,594,689	Nowatzki et al	07-2003

(9) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al

(U.S. 5,519,865) and further in view of Nowatzki et al (U.S. 6,594,689).

3. As per claims 1,9 Kondo disclosed policy-based data management system comprising: a policy set comprising at least one service class rule; a file evaluation module configured to apply the service class rule to assign a service class to a file; a file usage module configured to conduct operations on the file in a manner directed by the service class; (col. 4, lines 33-60)

However Kondo did not disclose in detail, "a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms".

In the same field of endeavor Nowatzki disclosed, "Similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform (col. 4, lines 11-16).

It would have been obvious to one having ordinary skill in the art at the time of the invention

was made to have incorporated similarly, UNIX application 36, application 38, oracle database manager 40, and the UNIX file management functions 42. OS 2200 platform 12 is coupled to UNIX platform 14 are coupled to desktop computer 16 via external LAN. The user at the industry compatible computer platform has direct to all of these functions utilizing commercially available diverse system elements, which are wherein incorporated by reference along with corresponding supporting documentation. FIG. 3 is a block diagram of the preferred embodiment of the present invention. The preferred embodiment is an automation server or utility that is coupled at least two different machines or platforms that are interconnected. For example, desk computer may be coupled to at 2200 platform 12 and/or UNIX platform as taught by Nowatzki in the method of Kondo to make the system more versatile reduce latency and cost.

4. As per claims 2,10,16,24 Kondo-Nowatzki disclosed wherein the file evaluation module is further configured to automatically assign the file to a storage pool (Nowatzki, col. 5, lines 54-64).

5. As per claims 3,17 Kondo-Nowatzki disclosed wherein the file evaluation module is configured to assign the storage pool to the file based on the service class (Kondo, col. 5, lines 17-34).

6. As per claims 4,18 Kondo-Nowatzki disclosed wherein the policy set further comprises at least one storage pool rule, the file evaluation module further configured to automatically apply

the storage pool rule to assign the storage pool to the file (Kondo, col. 6, lines 37-49).

7. As per claims 5,19 Kondo-Nowatzki disclosed wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool (Kondo, col. 6, lines 37-49).

8. As per claims 6,20 Kondo-Nowatzki disclosed wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class (Nowatzki, col. 4, lines 55-61).

9. As per claims 7,21,25,27 Kondo-Nowatzki disclosed further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class (Kondo, col. 5, lines 17-34).

10. As per claims 8,22 Kondo-Nowatzki disclosed wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390 (Nowatzki, col. 3, lines 39-43).

11. As per claim 11 Kondo-Nowatzki disclosed further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

12. As per claims 12,15,23,26 Kondo-Nowatzki disclosed a processor; a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured to apply the service class rule to assign a service class to a file (Nowatzki, col. 4, lines 33-60); and a memory configured to store computer code comprising a file request transmission module configured to request receipt of the file from a storage pool; and a file usage module configured to control handling of the file based on the service class (Kondo, col. 6, lines 37-49).

13. As per claim 13 Kondo-Nowatzki disclosed wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file (Kondo, col. 6, lines 37-49).

14. As per claim 14 Kondo-Nowatzki disclosed wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, a performance priority, and cache allocation Scheme of the client for a file based on the service class assigned to the file (Nowatzki, col. 4, lines 55-61).

(10) Response to Argument

A. Appellant argued that Examiner fails to make a prima facie case of obviousness because Kondo in combination with Nowatski fails to teach or suggest all of the claim limitations recited in claim 1.

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir.1992). In this case, Nowatzki and Kondo are combine to make the system more versatile reduce latency and cost.

B. Appellant argued that Kondo did not disclose, " storage operations or levels of service provided by storage systems".

As to appellant's argument Kondo disclosed, "Since the history management retains the retrieval conditions in executed classification in the history information storage section as history information, classification can be reproduced in response to a user request (col. 3, lines 33-37). One ordinary skill in the art at the time of the invention knows that history management is also interpreted as storage management where history management storing data to be able to use in

the future and it performs the same functionality as history management.

C. Appellant argued that Kondo fails to disclose, "A file evaluation module configured to apply the service class rule to assign a service class to a file".

As to appellant's argument Kondo disclosed, "when receiving an instruction of classifying the notice group from the control section, the classifying section lists the classification method registration information registered in the classification information storage section at step 201 and waits for the user to specify a classification method at step 202 (col. 6, lines 37-43). One ordinary skill in the art at the time of the invention knows that running file evaluation module that consist of a number of Instructions or commands to assigning service classes to a file. Regarding Kondo one ordinary skill in the art at the time of the invention knows that Instruction classifying the method registration information registered in the classification information storage section.

D. Appellant argued that Kondo does not disclose, "Any file reads, writes, opens, stores or the like in the cited section".

In response to appellant's argument that the references fail to show Certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., Any file reads, writes, opens, stores or the like in the cited section) are not recited in the rejected claim(s). Although the

claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

E. Appellant argued that Kondo does not disclose, "Assigning file attributes to a file".

In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., Assigning file attributes to a file) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

F. Appellant argued that Kondo in combination with Nowatzki does not disclose the element "to automatically assign the file to a storage pool".

As to appellant's argument Kondo in combination with Nowatzki disclosed, "the contents of buffer are saved and are written back to file access control program B via CP automation server. User ID file is then upgraded with new results via interface (col. 5, lines 54-58)". One ordinary skill in the art at the time of the invention that contents of the buffer saving via automation server interpreted as assigning the file to a storage pool where as file has certain content or information or data.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Adnan M Mirza/

Examiner, Art Unit 2445

SEPT 05, 2007

Conferees

/VIVEK SRIVASTAVA/

Supervisory Patent Examiner, Art Unit 2445

/Patrice Winder/

Primary Examiner, Art Unit 2445



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Row 2: 45216, 7590, 07/02/2010, Kunzler Needham Massey & Thorpe, 8 EAST BROADWAY, SUITE 600, SALT LAKE CITY, UT 84111
Row 3: EXAMINER, MIRZA, ADNAN M
Row 4: ART UNIT, PAPER NUMBER, 2445
Row 5: NOTIFICATION DATE, DELIVERY MODE, 07/02/2010, ELECTRONIC

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KUNZLER NEEDHAM MASSEY & THORPE
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

Appeal No: 2010-009217
Application: 10/389,408
Appellant: James Vernon Carlson et al.

**Board of Patent Appeals and Interferences
Docketing Notice**

Application 10/389,408 was received from the Technology Center at the Board on June 28, 2010 and has been assigned Appeal No: 2010-009217.

In all future communications regarding this appeal, please include both the application number and the appeal number.

The mailing address for the Board is:

BOARD OF PATENT APPEALS AND INTERFERENCES
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VIRGINIA 22313-1450

The facsimile number of the Board is 571-273-0052. Because of the heightened security in the Washington D.C. area, facsimile communications are recommended. Telephone inquiries can be made by calling 571-272-9797 and referencing the appeal number listed above.

By order of the Board of Patent Appeals and Interferences.



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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES VERNON CARLSON, LINDA MARIA DUYANOVICH,
TOBY LYN MAREK, DAVID RONALD NOWLEN,
DAVID ALLAN PEASE, and MICHAEL LEO WALKER

Appeal 2010-009217
Application 10/389,408
Technology Center 2400

Before MICHAEL R. ZECHER, JUSTIN T. ARBES, and
GLENN J. PERRY, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-27. App. Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse and enter a new ground of rejection.

Appellants' Invention

Appellants invented a system, apparatus, method, and computer readable medium for policy-based data management. Abstract. According to Appellants, the claimed invention operates over a distributed storage system such as a storage area network ("SAN"). *Id.* The SAN stores files that are each assigned a service class and a storage pool based on the application of policies to file attributes, *e.g.*, file name, type, user, etc. *Id.* In addition, the SAN stores the service class and storage pool designations as metadata. *Id.* The disclosed system retrieves files by using the metadata to identify the storage pool where the file is stored, and uses the service class listed within the metadata to control the manner in which the file is handled. *Id.* The disclosed system also uses a metadata server that provides the appropriate service class of files in response to requests from remote clients that may run on different computing platforms. *Id.*

Illustrative Claim

Claims 1, 9, 12, 15, 23, and 26 are independent claims. Independent claim 1 is illustrative:

1. A policy-based data management system comprising:
 - a policy set comprising at least one service class rule;
 - a file evaluation module configured to apply the service class rule to assign a service class to a file;

a file usage module configured to conduct operations on the file in a manner directed by the service class; and
a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients comprising at least two different computing platforms.

Prior Art Relied Upon

Kondo	US 5,519,865	May 21, 1996
Nowatzki	US 6,594,689 B1	July 15, 2003 (filed May 8, 1997)

Rejection on Appeal

Claims 1-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kondo and Nowatzki. Ans. 3-7.¹

Examiner's Findings and Conclusions

The Examiner finds that Kondo's disclosure at column 4, lines 33-60, teaches "a file evaluation module configured to apply the service class rule to assign a service class to a file," as recited in independent claim 1. Ans. 4. The Examiner also finds that Kondo's disclosure at column 6, lines 37-43, teaches the disputed claim limitation. *Id.* at 9. The Examiner concludes that one with ordinary skill in the art at the time of the claimed invention would have appreciated running a file evaluation module that consists of a number of instructions or commands to assign service classes to a file. *Id.* In addition, the Examiner concludes that one with ordinary skill in the art at the time of the claimed invention would have recognized that the instruction classifying method in Kondo registers information in the classification information storage section. *Id.*

¹ All references to the Examiner's Answer are to the Answer mailed on March 22, 2010, which replaced the Answer mailed on October 10, 2007.

Appellants' Contentions

Appellants contend that when the Examiner cites to Kondo's disclosure at column 4, lines 33-60, it is unclear what portion of that disclosure the Examiner relies upon to teach the "service class," as recited in independent claim 1. App. Br. 13. Further, Appellants argue that Kondo's disclosure at column 6, lines 37-43, teaches a user selecting filter criteria for a group of files, not assigning a service class to a file. App. Br. 13; Reply Br. 6. Appellants allege that while Kondo may preserve a new classification method, it does not assign the classification method to a file. *Id.* Appellants contend that in addition to failing to disclose a service class, Kondo also fails to disclose applying a service class rule to assign the service class to a file, as required by independent claim 1. Reply Br. 6.

II. ISSUE

The dispositive issue before us is whether the Examiner erred in determining that the combination of Kondo and Nowatzki teaches "a file evaluation module configured to apply the service class rule to assign a service class to a file," as recited in independent claim 1, and similarly recited in independent claims 9, 12, 15, 23, and 26.

III. ANALYSIS

Claims 1, 9, 12, 15, 23, and 26

Based on the record before us, we discern error in the Examiner's obviousness rejection of independent claim 1, which recites, *inter alia*, "a file evaluation module configured to apply the service class rule to assign a service class to a file." We also discern error in the Examiner's obviousness

rejection of independent claims 9, 12, 15, 23, and 26, which recite a similar claim limitation.

We begin our analysis by noting that because this dispute turns on the Examiner's factual findings with respect to Kondo, we confine our discussion to that reference. Initially, the Examiner takes the position that Kondo's disclosure at column 4, lines 33-60, teaches the disputed claim limitation. However, we agree with Appellants that it is unclear what portion of that disclosure the Examiner relies upon to teach the claimed "service class" (App. Br. 13), let alone applying the claimed "service class rule."

Next, the Examiner takes the position that Kondo's disclosure at column 6, lines 37-43, teaches the disputed claim limitation. At best, that cited portion of Kondo teaches that a user of the retrieval interface system selects a classification method for a file before retrieving the selected classification method from the classification information storage section. *See id.* However, there is no indication that Kondo contemplates applying rules that evaluate the attributes of the file in order to assign an appropriate classification method thereto. Rather, Kondo discloses that the user enters instructions for retrieving a desired classification method for the file via the control section of the retrieval interface system. *Id.* Consequently, the Examiner has not presented sufficient evidence to warrant a finding that Kondo teaches the disputed claim limitation.

Because the Examiner's reliance on Kondo does not properly account for the disputed claim limitation, we need not reach the merits of Appellants' other arguments. It follows that the Examiner has erred in concluding that

Appeal 2010-009217
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the combination of Kondo and Nowatzki renders independent 1, 9, 12, 15, 23, and 26 unpatentable.

Claims 3-8, 10, 11, 13, 14, 16-22, 24, 25, and 27

Because dependent claims 3-8, 10, 11, 13, 14, 16-22, 24, 25, and 27 incorporate the disputed claim limitation of independent claims 1, 9, 12, 15, 23, and 26, the Examiner erred in rejecting these claims for the same reasons set forth in our discussion above.

IV. NEW GROUND OF REJECTION

We enter the following new ground of rejection pursuant to our authority under 37 C.F.R. § 41.50(b).

PRINCIPLES OF LAW

Transitory, propagating signals are unpatentable under 35 U.S.C. § 101. *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007). According to U.S. Patent & Trademark Office (USPTO) guidelines:

A claim that covers both statutory and non-statutory embodiments . . . embraces subject matter that is not eligible for patent protection and therefore is directed to non-statutory subject matter. . . . For example, a claim to a computer readable medium that can be a compact disc or *a carrier wave* covers a non-statutory embodiment and therefore should be rejected under § 101 as being directed to non-statutory subject matter.

U.S. Patent & Trademark Office, *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 2009, at 2, available at http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25_interim_101_instructions.pdf.

The USPTO also provides the following guidance:

The broadest reasonable interpretation of a claim drawn to a computer readable medium . . . typically covers forms of non-

transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. . . .
When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter.

David J. Kappos, *Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

ANALYSIS

35 U.S.C. § 101 Rejection

Claim 23

Independent claim 23 recites, in pertinent part, “[a] computer readable medium comprising computer code configured to carry out a method comprising. . . .”

Upon reviewing Appellants’ Specification, we do not find any support for what constitutes the claimed “computer readable medium.” Therefore, because Appellants’ Specification is silent in that regard, we conclude that the claimed “computer readable-medium” can be broadly, but reasonably construed to encompass both non-transitory tangible media and transitory propagating signals *per se*. Because independent claim 23 covers both statutory and non-statutory embodiments, we conclude that it embraces subject matter that is not eligible for patent protection and, therefore, is directed to non-statutory subject matter under 35 U.S.C. § 101.

Claims 24 and 25

For the same reason set forth above, we conclude that dependent claims 24 and 25 are also directed to non-statutory subject matter under 35 U.S.C. § 101.

V. CONCLUSION

For the foregoing reasons, the Examiner has erred in rejecting claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kondo and Nowatzki. However, we enter a new ground of rejection against claims 23-25 as being directed to non-statutory subject matter under 35 U.S.C. § 101.

VI. DECISION

We reverse the Examiner's decision to reject claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kondo and Nowatzki. We newly reject claims 23-25 as being directed to non-statutory subject matter under 35 U.S.C. § 101.

37 C.F.R. § 41.50(b) provides that, “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b)) as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2010-009217
Application 10/389,408

REVERSED
37 C.F.R. § 41.50(b)

cu

PATENT

Docket No. SJO920020041US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James V. Carlson

Serial No.: 10/389,408

Filed: March 14, 2003

For: SYSTEM, METHOD, AND APPARATUS FOR
POLICY-BASED DATA MANAGEMENT

Examiner: Adnan M. Mirza

Group Art
Unit: 2145

AMENDMENT AND RESPONSE TO DECISION ON APPEAL

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In response to the Decision on Appeal mailed March 6, 2013, Applicants respectfully request the reopening of prosecution of the present application in view of the following amendments and remarks.

Amendments to the Claims:

Please amend the claims as indicated.

1. (Original) A policy-based data management system comprising:
a policy set comprising at least one service class rule;
a file evaluation module configured to apply the service class rule to assign a service class
to a file;
a file usage module configured to conduct operations on the file in a manner directed by
the service class; and
a communication module operable to communicate between the file evaluation module
and a plurality of remote clients and configured to communicate with clients
comprising at least two different computing platforms.
2. (Original) The policy-based data management system of claim 1, wherein the file
evaluation module is further configured to automatically assign the file to a storage pool.
3. (Original) The policy-based data management system of claim 1, wherein the file
evaluation module is configured to assign the storage pool to the file based on the service
class.
4. (Original) The policy-based data management system of claim 2, wherein the policy set
further comprises at least one storage pool rule, the file evaluation module further

configured to automatically apply the storage pool rule to assign the storage pool to the file.

5. (Original) The policy-based data management system of claim 2, wherein the storage pool is selected from a group of storage pools of the open systems environment, and the file evaluation module is configured to take the characteristics of the storage pools into account in assigning the file to a storage pool.
6. (Original) The policy-based data management system of claim 1, wherein the file usage module is configured to establish at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, based on the service class.
7. (Original) The policy-based data management system of claim 1, further comprising a file transmission module configured to provide one or more attributes of the file to the file evaluation module, which is configured to apply the service class rule to the one or more attributes to determine the service class.
8. (Original) The policy-based data management system of claim 1, wherein the at least two different computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390.

9. (Original) A metadata server for carrying out policy-based management, the metadata server comprising:
- a processor; and
 - a memory configured to store computer code comprising:
 - a policy set comprising at least one service class rule;
 - a file evaluation module configured to apply the service class rule to assign a service class to a file; and
 - a communication module operable to communicate between the file evaluation module and a plurality of remote clients and configured to communicate with clients of varying computing platforms.
10. (Original) The metadata server of claim 9, wherein the file evaluation module is further configured to automatically assign the file to a storage pool.
11. (Original) The metadata server of claim 9, further comprising a network interface configured to communicate with a client to transmit a service class to the client to control handling of the file based on the service class.
12. (Original) A client for carrying out policy-based management, comprising:
- a processor;
 - a network interface configured to communicate with a metadata server having a policy set comprising at least one service class rule and a file evaluation module configured

to apply the service class rule to assign a service class to a file; and
a memory configured to store computer code comprising a file request
transmission module configured to request receipt of the file from a storage pool;
and
a file usage module configured to control handling of the file based on the service
class.

13. (Original) The client of claim 12, wherein the memory further comprises a file request transmission module configured to transmit attributes of the one file to the metadata server so that the metadata server can apply the service class rule to the attributes in assigning a service class to the file.
14. (Original) The client of claim 12, wherein the file usage module is configured to select at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme of the client for a file based on the service class assigned to the file.
15. (Original) A method for handling files within a policy-based data management system, the method comprising:
 - providing a policy set comprising at least one service class rule;
 - receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms;

applying the service class rule to the file to assign a service class to the file; and
conducting operations on the file in a manner according to the service class.

16. (Original) The method of claim 15, further comprising assigning a storage pool to the file.
17. (Original) The method of claim 16, wherein assigning the storage pool to the file comprises assigning the storage pool to the file based on the at least one service class.
18. (Original) The method of claim 16, wherein the policy set further comprises at least one storage pool rule, wherein assigning the storage pool to the file comprises applying the storage pool rule to the characteristics of the available storage pools to assign the storage pool to the file.
19. (Original) The method of claim 16, wherein assigning the storage pool to the file comprises selecting the storage pool from a group of storage pools of the open systems environment, the group of storage pools each comprising at least two different disaster recoverability levels.
20. (Original) The method of claim 15, wherein controlling handling of the file based on the service class comprises taking action on at least one of the group consisting of input/output speed, random access memory allocation, performance priority, and cache allocation scheme, in a manner in accordance with the service class.

21. (Original) The method of claim 15, wherein the service class rule is applied to the one or more file attributes to select the service class.
22. (Original) The method of claim 15, wherein the computing platforms are selected from the group consisting of Windows, AIX, Linux, Solaris, Unix, Mac OS, OS/2, DOS, HP, IRIX, and OS/390, wherein the method further comprises translating the one or more attributes.
23. (Currently Amended) A ~~storage device storing computer-readable medium comprising~~ computer code ~~executable by a processor configured~~ to carry out a method comprising:
- providing a policy set comprising at least one service class rule;
 - receiving one or more attributes of a file from one of a plurality of clients, the clients comprising at least two different computing platforms;
 - applying the service class rule to the file to assign a service class to the file; and
 - conducting operations on the file in a manner according to the service class.
24. (Currently Amended) The ~~storage device computer-readable medium~~ of claim 23, wherein the computer code is further configured to assign a storage pool to the file.
25. (Currently Amended) The ~~storage device computer-readable medium~~ of claim 23, wherein the service class rule bases selection of the service class on the one or more file attributes.

26. (Original) A policy-based data management system for an open systems environment, the system comprising:

at least one service class rule;

means for applying the service class rule to assign a service class to a file;

means for controlling handling of the file based on the service class;

means for communicating with a plurality of clients comprising at least two different computing platforms.

27. (Original) The policy-based data management system of claim 26, further comprising means for assigning a storage pool to the file based on attributes of the file.

REMARKS

Claims 23-25 stand rejected under 35 U.S.C. § 101. The rejection of claims 1-27 under 35 U.S.C. 103 from the office action of February 13, 2013 is reversed.

Response to rejections of claims under 35 U.S.C. § 101

Applicant has amended claim 23 to recite "...A ~~storage device storing computer-readable medium comprising~~ computer code ~~executable by a processor configured~~ to carry out a method comprising..." Claims 24 and 25 are similarly amended. The amendment is well supported by the specification in 10:9-23. Applicants submit that as amended claims 23-25 are directed to statutory subject matter under 35 U.S.C. § 101 as transitory medium is no longer within the scope of the claims. The claims are directed to a storage device storing computer code executable by a processor that carries out functions in a novel way. Applicants stipulate that the storage device is a physical device and not a signal. Since the claim language recites a physical device, Applicants therefore submit that claims 23-25 are directed to statutory subject matter under 35 U.S.C. § 101.

Conclusion

As a result of the presented amendments and remarks, Applicants assert that the application is in condition for prompt allowance. Should additional information be required regarding the traversal of the rejections of the claims enumerated above, the Examiner is respectfully asked to notify Applicants of such need. If any impediments to the prompt

allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

/Scott D. Thorpe/_____

Scott D. Thorpe
Reg. No. 54,491
Attorney for Applicant

Date: May 6, 2013
Kunzler Law Group
8 East Broadway, Suite 600
Salt Lake City, UT 84111
Telephone (801) 994-4646
Fax (801) 531-1929

Electronic Acknowledgement Receipt

EFS ID:	15705060
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	System, method, and apparatus for policy-based data management
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	Brian C. Kunzler/Heather Babb
Filer Authorized By:	Brian C. Kunzler
Attorney Docket Number:	SJO920020041US1
Receipt Date:	06-MAY-2013
Filing Date:	14-MAR-2003
Time Stamp:	18:42:35
Application Type:	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		SJO920020041US1_Amendment.pdf	25735 79e4ba20565366e5f54d5f5d794a2feafec40c4	yes	10

Multipart Description/PDF files in .zip description			
Document Description		Start	End
Amendment/Argument after Patent Board Decision		1	1
Claims		2	8
Applicant Arguments/Remarks Made in an Amendment		9	10
Warnings:			
Information:			
Total Files Size (in bytes):		25735	
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> 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><u>National Stage of an International Application under 35 U.S.C. 371</u> 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><u>New International Application Filed with the USPTO as a Receiving Office</u> 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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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 10/389,408		Filing Date 03/14/2003		<input type="checkbox"/> To be Mailed				
ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO												
APPLICATION AS FILED – PART I												
(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(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)						
AMENDMENT	05/06/2013		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))		* 27		Minus ** 27		= 0		X \$80 =		0	
	Independent (37 CFR 1.16(h))		* 6		Minus *** 6		= 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				0		
(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.						LIE						
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/BRIDGET MONROE/						
*** 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.												

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.**

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NOTICE OF ALLOWANCE AND FEE(S) DUE

45216 7590 07/01/2013
Kunzler Law Group
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER
MIRZA, ADNAN M

ART UNIT PAPER NUMBER
2443

DATE MAILED: 07/01/2013

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/389,408 03/14/2003 James Vernon Carlson SJ0920020041US1 1229

TITLE OF INVENTION: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

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 10/01/2013

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.

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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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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)

45216 7590 07/01/2013
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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.

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_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229

TITLE OF INVENTION: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

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	10/01/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
MIRZA, ADNAN M	2443	709-201000

<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 Customer Number is required.</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.

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.

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.



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.
10/389,408 03/14/2003 James Vernon Carlson SJO920020041US1 1229

45216 7590 07/01/2013
Kunzler Law Group
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2443

DATE MAILED: 07/01/2013

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 3800 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 3800 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.

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.

Notice of Allowability	Application No. 10/389,408	Applicant(s) CARLSON ET AL.	
	Examiner ADNAN MIRZA	Art Unit 2443	AIA (First Inventor to File) Status 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 05/06/2013.
 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 1-27. 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 or send an inquiry to 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: _____.

Interim copies:

a) All b) Some c) None of the: Interim copies of the priority documents have been 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)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Examiner's Amendment/Comment 6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance 7. <input type="checkbox"/> Other _____. |
|--|---|

/ADNAN MIRZA/
Primary Examiner, Art Unit 2443

Index of Claims 	Application/Control No. 10389408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.
	Examiner ADNAN M MIRZA	Art Unit 2145

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

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


CLAIM		DATE									
Final	Original	06/19/2013									
	1	=									
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BIB DATA SHEET
CONFIRMATION NO. 1229

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.	
10/389,408	03/14/2003	709	2443	SJO920020041US1	
APPLICANTS James Vernon Carlson, San Jose, CA; Linda Marie Duyanovich, Saratoga, CA; Toby Lyn Marek, Santa Clara, CA; David Ronald Nowlen, Morgan Hill, CA; David Allan Pease, Redwood Estates, CA; Michael Leo Walker, San Jose, CA;					
** CONTINUING DATA *****					
** FOREIGN APPLICATIONS *****					
** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 05/12/2003					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Verified and Acknowledged <u>/ADNAN M MIRZA/</u> <small>Examiner's Signature</small>	<input type="checkbox"/> Met after Allowance <small>Initials</small>	STATE OR COUNTRY CA	SHEETS DRAWINGS 8	TOTAL CLAIMS 27	INDEPENDENT CLAIMS 6
ADDRESS Kunzler Law Group 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111 UNITED STATES					
TITLE System, method, and apparatus for policy-based data management					
FILING FEE RECEIVED 1128	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		

Search Notes 	Application/Control No. 10389408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.
	Examiner ADNAN MIRZA	Art Unit 2443

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	201203,208,	6/19/2013	AM

SEARCH NOTES		
Search Notes	Date	Examiner
USPAT (EAST)	6/19/2013	AM
EPO (EAST)	6/19/2013	AM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
USPGPUB (EAST)		6/19/2013	AM

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	582	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	USPAT	OR	OFF	2013/06/19 15:02
L2	2971	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:02
L3	34	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:05
L4	8	((manag\$5 or administr\$5 or handl\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:05
L5	1	((manag\$5 or administr\$5 or handl\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) near5 (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:06

6/ 19/ 2013 3:07:01 PM

C:\Users\amirza\Documents\EAST\Workspaces\10389408.wsp

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
 (Submitted Only via EFS-Web)**

Application Number	10/389,408	Filing Date	2003-03-14	Docket Number (if applicable)	SJO920020041US1	Art Unit	2443
First Named Inventor	James Vernon Carlson			Examiner Name	Adnan M. Mirza		

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. The Instruction Sheet for this form is located at WWW.USPTO.GOV

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).

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.

Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

Other _____

Enclosed

Amendment/Reply

Information Disclosure Statement (IDS)

Affidavit(s)/ Declaration(s)

Other Request to correct inventorship as originally filed on May 5, 2003. This request has not yet been processed by the USPTO. _____

MISCELLANEOUS

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)

Other _____

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 any underpayment of fees, or credit any overpayments, to Deposit Account No 090446

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Patent Practitioner Signature

Applicant Signature

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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.

Signature of Registered U.S. Patent Practitioner			
Signature	/Brian C. Kunzler/	Date (YYYY-MM-DD)	2013-10-01
Name	Brian C. Kunzler	Registration Number	38527

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.

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

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 the Freedom of Information Act requires disclosure of these records.
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).
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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 inspections 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.

Electronic Patent Application Fee Transmittal

Application Number:	10389408			
Filing Date:	14-Mar-2003			
Title of Invention:	SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT			
First Named Inventor/Applicant Name:	James Vernon Carlson			
Filer:	Brian C. Kunzler/Christie Moriarty			
Attorney Docket Number:	SJO920020041US1			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for Continued Examination	1801	1	1200	1200
Total in USD (\$)				1200

Electronic Acknowledgement Receipt

EFS ID:	17013069
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	45216
Filer:	Brian C. Kunzler/Christie Moriarty
Filer Authorized By:	Brian C. Kunzler
Attorney Docket Number:	SJO920020041US1
Receipt Date:	01-OCT-2013
Filing Date:	14-MAR-2003
Time Stamp:	18:59:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1200
RAM confirmation Number	5970
Deposit Account	090466
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	Request under Rule 48 correcting inventorship	Request-under-Rule-48-to-correct-inventorship.pdf	123572 4b32e406edc77273ff61ac616971d93a99c90aba	no	3
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	SJO920020041US1_RCE.pdf	797829 8253210e7374b18460231934b26df51a5ffaef	no	3
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30413 c0be27d81bdb1130db7cf665c4f62e202fab6e8	no	2
Warnings:					
Information:					
Total Files Size (in bytes):				951814	
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> 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><u>National Stage of an International Application under 35 U.S.C. 371</u> 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><u>New International Application Filed with the USPTO as a Receiving Office</u> 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>					



10/389408

10/389408

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

RECEIVED

APPLICANT(S):

JIM CARLSON ET AL. ✓

MAY 20 2003

SERIAL No.:

(NOT YET ASSIGNED)

Technology Center 2100

FILING DATE:

MARCH 14, 2003

TITLE:

SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED
DATA MANAGEMENT

GROUP ART :

ATTY. DKT. No.:

SJO920020041US1 ✓

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231, on the date shown below:

Dated: 4/30/03

By: Brian C. Kunzler
Brian C. Kunzler, Reg. No.: 38, 527

ASSISTANT COMMISSIONER FOR PATENTS
APPLICATION PROCESSING DIVISION
CUSTOMER CORRECTION BRANCH
WASHINGTON, DC. 20231

REQUEST TO CORRECT THE INVENTORSHIP

DEAR SIR:

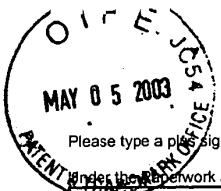
Please add Paul Harold Hilton as an inventor for the above application. A true statement from the inventor as well as a signed Declaration and Power of Attorney, an Assignment, and a processing fee sheet are enclosed.

Respectfully submitted,
BRIAN C. KUNZLER

05/19/2003 DTESSEM1 00000122 090466 10389408
01 FC:1460 130.00 CH

Brian C. Kunzler
Reg. No. 38,527
Attorney for Applicant

Date: April 30, 2003
Brian C. Kunzler
10 West 100 South, Suite 425
Salt Lake City, Utah 84101
Telephone: 801/994-4646



Please type a plus sign (+) inside this box +

Approved for use through 9/30/03. OMB 0651-0032
 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
 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.

<h1 style="margin: 0;">FEE TRANSMITTAL</h1> <p style="font-size: small; margin-top: 10px;">Note: Effective October 1, 2001. Patent fees are subject to annual revision.</p>	Complete If Known	
	Application Number	Not yet assigned
	Filing Date	March 14, 2003
	First Named Inventor	James V. Carlson RECEIVED
	Group Art Unit	
TOTAL AMOUNT OF PAYMENT		\$ 170
Attorney Docket Number		SJO920020041US1

MAY 20 2003

Technology Center 2100

<p>METHOD OF PAYMENT (check one)</p> <p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number: <u>09-0466</u></p> <p>Deposit Account Name: <u>IBM CORPORATION</u></p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Charge the Issue Fee In 37 CFR at the Mailing of the Notice of Allowance</p> <p>2. <input type="checkbox"/> Payment Enclosed:</p> <p style="padding-left: 20px;"><input type="checkbox"/> Check <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p> <hr/> <p style="text-align: center; font-weight: bold;">FEE CALCULATION</p> <p>1. FILING FEE</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Large Entity</th> <th style="text-align: left;">Small Entity</th> <th colspan="2"></th> <th style="text-align: left;">Fee Description</th> <th style="text-align: left;">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>1001</td><td>750</td><td>2001</td><td>375</td><td>Utility filing fee</td><td></td></tr> <tr><td>1002</td><td>330</td><td>2002</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>520</td><td>2003</td><td>260</td><td>Plant filing fee</td><td></td></tr> <tr><td>1004</td><td>750</td><td>2004</td><td>375</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (1)</td><td style="text-align: center;">\$ 0</td></tr> </tbody> </table> <p>2. CLAIMS</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Extra</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total Claims -20 =</td> <td style="text-align: center;">0</td> <td style="text-align: center;">x 18</td> <td style="text-align: center;">=</td> </tr> <tr> <td>Ind. Claims -3 =</td> <td style="text-align: center;">0</td> <td style="text-align: center;">x 84</td> <td style="text-align: center;">=</td> </tr> <tr> <td>Multiple Dep. Claims</td> <td style="text-align: center;">0</td> <td style="text-align: center;">x 280</td> <td style="text-align: center;">=</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Large Entity</th> <th style="text-align: left;">Small Entity</th> <th colspan="2"></th> <th style="text-align: left;">Fee Description</th> <th style="text-align: left;">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>1201</td><td>84</td><td>2201</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>1203</td><td>280</td><td>2203</td><td>140</td><td>Multiple dependent claim</td><td></td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (2)</td><td style="text-align: center;">\$ 0</td></tr> </tbody> </table>	Large Entity	Small Entity			Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)			1001	750	2001	375	Utility filing fee		1002	330	2002	165	Design filing fee		1003	520	2003	260	Plant filing fee		1004	750	2004	375	Reissue filing fee		1005	160	2005	80	Provisional filing fee		SUBTOTAL (1)					\$ 0		Extra	Fee from below	Fee Paid	Total Claims -20 =	0	x 18	=	Ind. 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SUBMITTED BY				Complete (if applicable)	
Typed or Printed Name	Brian C. Kunzler		Reg. Number	38,527	
Signature			Date	Mar 14, 2003	
			Deposit Account User ID		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



STATEMENT OF INVENTORSHIP

RE: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

Filed: March 14, 2003

Serial No.: (Not yet assigned)

Docket No.: SJO920020041US1

Express Mailing Label No.: EU329839960US

RECEIVED
MAY 20 2003
Technology Center 2100

This is to verify that I, Paul Harold Hilton, am an inventor in the above referenced nonprovisional patent application. My name was omitted from the original Declaration and Power of Attorney as well as from the original Assignment without any deceptive intention on my part. I affirm that the error occurred in good faith, and request that my name be added to the application as a joint inventor.

Date: April 14, 2003



Paul Harold Hilton



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 6 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY.DOCKET.NO, TOT CLAIMS, IND CLAIMS. Row 1: 10/389,408, 03/14/2003, 2443, 1128, SJO920020041US1, 27, 6

CONFIRMATION NO. 1229

CORRECTED FILING RECEIPT



45216
Kunzler Law Group
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

Date Mailed: 10/17/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Inventor(s)

James Vernon Carlson, San Jose, CA;
Linda Marie Duyanovich, Saratoga, CA;
Toby Lyn Marek, Santa Clara, CA;
David Ronald Nowlen, Morgan Hill, CA;
David Allan Pease, Redwood Estates, CA;
Michael Leo Walker, San Jose, CA;
Paul Harold Hilton, Bragg Creek, CANADA;

Applicant(s)

James Vernon Carlson, San Jose, CA;
Linda Marie Duyanovich, Saratoga, CA;
Toby Lyn Marek, Santa Clara, CA;
David Ronald Nowlen, Morgan Hill, CA;
David Allan Pease, Redwood Estates, CA;
Michael Leo Walker, San Jose, CA;
Paul Harold Hilton, Bragg Creek, CANADA;

Assignment For Published Patent Application

INTERNATIONAL BUSINESS MACHINES CORPORATION, Armonk, NY

Power of Attorney:

Joseph Redmond Jr--18753 Edward Pennington--32588
John Hoel--26279 Paik Saber--37494
Christopher Hughes--26914 Brian Kunzler--38527
Robert Martin--26945 Abdolreza Raissinia--38686
Douglas Millett--31784 Randall Bluestone--40518

Domestic Applications for which benefit is claimed - None.

A proper domestic benefit claim must be provided in an Application Data Sheet in order to constitute a claim for domestic benefit. See 37 CFR 1.76 and 1.78.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 05/12/2003

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 10/389,408**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
Title

SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

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 U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor

community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



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

45216 7590 11/06/2013
Kunzler Law Group
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2443

DATE MAILED: 11/06/2013

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/389,408 03/14/2003 James Vernon Carlson SJ0920020041US1 1229

TITLE OF INVENTION: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

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 02/06/2014

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)

45216 7590 11/06/2013
Kunzler Law Group
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

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.
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1	1229

TITLE OF INVENTION: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

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	02/06/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
MIRZA, ADNAN M	2443	709-201000

<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 Customer Number is required.</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>
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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>
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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 _____

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.

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.



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Table with columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
10/389,408 03/14/2003 James Vernon Carlson SJO920020041US1 1229
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SUITE 600
SALT LAKE CITY, UT 84111
EXAMINER
MIRZA, ADNAN M
ART UNIT PAPER NUMBER
2443
DATE MAILED: 11/06/2013

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 3800 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 3800 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.

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.

**Notices of Allowance and Fee(s) Due mailed between October 1, 2013 and
December 31, 2013**

(Addendum to PTOL-85)

If the "Notice of Allowance and Fee(s) Due" has a mailing date on or after October 1, 2013 and before January 1, 2014, the following information is applicable to this application.

If the issue fee is being timely paid on or after January 1, 2014, the amount due is the issue fee and publication fee in effect January 1, 2014. On January 1, 2014, the issue fees set forth in 37 CFR 1.18 decrease significantly and the publication fee set forth in 37 CFR 1.18(d)(1) decreases to \$0.

If an issue fee or publication fee has been previously paid in this application, applicant is not entitled to a refund of the difference between the amount paid and the amount in effect on January 1, 2014.

Notice of Allowability	Application No. 10/389,408	Applicant(s) CARLSON ET AL.	
	Examiner ADNAN MIRZA	Art Unit 2443	AIA (First Inventor to File) Status 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 05/06/2013.
 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 1-27. 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 or send an inquiry to 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: _____.

Interim copies:

a) All b) Some c) None of the: Interim copies of the priority documents have been 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)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | <ol style="list-style-type: none"> 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance 7. <input type="checkbox"/> Other _____. |
|--|--|

/ADNAN MIRZA/
Primary Examiner, Art Unit 2443

DETAILED ACTION

Examiner acknowledged the request to correct inventorship and signed inventor oath of declaration dated 10/01/2013.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN MIRZA whose telephone number 571-272-3885. The examiner can normally be reached on 9-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. 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.

Application/Control Number: 10/389,408
Art Unit: 2443

Page 3

/ADNAN MIRZA/
Primary Examiner, Art Unit 2443

Index of Claims 	Application/Control No. 10389408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.
	Examiner ADNAN MIRZA	Art Unit 2443

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

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

CLAIM		DATE									
Final	Original	10/18/2013									
	1	=									
	2	=									
	3	=									
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	25	=									
	26	=									
	27	=									

EAST Search History

EAST Search History (Prior Art)


Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	582	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	USPAT	OR	OFF	2013/06/19 15:02
S2	2971	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:02
S3	34	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:05
S4	8	((manag\$5 or administr\$5 or handl\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:05
S5	1	((manag\$5 or administr\$5 or handl\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) near5 (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/06/19 15:06
S6	602	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	USPAT	OR	OFF	2013/10/18 20:48
S7	3070	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and ((multiple or couple or plural or two) near25 (computer or platform))	US-PGPUB; USPAT; EPO	OR	ON	2013/10/18 20:48
S8	34	((manag\$5 or administr\$5 or handl\$5) near15 file) and (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/10/18 20:48
S9	8	((manag\$5 or administr\$5 or handl\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) and (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/10/18 20:48

EAST Search History

S10	1	((manag\$5 or administr\$5 or hand\$5) near15 file) near5 (((propert\$3 or attribute) near15 file) near25 (client or user or consumer)) near5 (((((classif\$7 or select\$5) near5 file)) near5 (category or class or section)) near5 ((attribute or property\$4) near15 file))	US-PGPUB; USPAT; EPO	OR	ON	2013/10/18: 20:48
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10/ 18/ 2013 9:42:55 PM

C:\ Users\ amirza\ Documents\ EAST\ Workspaces\ 10389408.wsp

Search Notes 	Application/Control No. 10389408	Applicant(s)/Patent Under Reexamination CARLSON ET AL.
	Examiner ADNAN MIRZA	Art Unit 2443

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	201203,208,	10/18/2013	AM

SEARCH NOTES		
Search Notes	Date	Examiner
USPAT (EAST)	10/18/2013	AM
EPO (EAST)	10/18/2013	AM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
USPGPUB (EAST)		6/19/2013	AM

--	--

JW

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 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)

45216 7590 11/06/2013 Kunzler Law Group 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111



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.

Table with 3 rows: (Depositor's name), (Signature), (Date)

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Values: 10/389,408, 03/14/2003, James Vernon Carlson, SJO920020041US1, 1229

TITLE OF INVENTION: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

Table with 7 columns: APPLN. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE. Values: nonprovisional, UNDISCOUNTED, \$1780, \$300, \$0, \$2080, 02/06/2014

Table with 3 columns: EXAMINER, ART UNIT, CLASS-SUBCLASS. Values: MIRZA, ADNAN M, 2443, 709-201000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). [X] Change of correspondence address (or 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, 1 Kunzler Law Group (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.

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 International Business Machines Corporation (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 [X] Corporation or other private group entity [] Government

4a. The following fee(s) are submitted: [X] Issue Fee [X] Publication Fee (No small entity discount permitted) [] Advance Order - # of Copies 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) [] A check is enclosed. [] Payment by credit card. Form PTO-2038 is attached. [X] The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 090466 (enclose an extra copy of this form).

02/05/2014 SMOHAMM1 00000030 090466 10389400 01 FC:1501 960.00 DA

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.

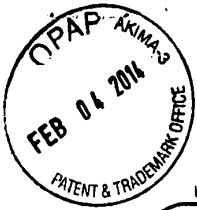
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature *Brian C Kunzler*
Typed or printed name Brian C Kunzler

Date 11/26/13
Registration No. 38,527

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.

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.



IFW

PTO/AIA/122 (08-12)
 Approved for use through 11/30/2014. OMB 0651-0035
 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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.

CHANGE OF CORRESPONDENCE ADDRESS <i>Application</i> Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10389408
	Filing Date	2003-03-14
	First Named Inventor	James Vernon Carlson
	Art Unit	2443
	Examiner Name	Adnan M. Mirza
	Attorney Docket Number	SJO920020041US1

Please change the Correspondence Address for the above-identified patent application to:

The address associated with Customer Number: 33595

OR

Firm or Individual Name

Address

City State Zip

Country

Telephone Email

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

I am the:

Applicant

Attorney or agent of record. Registration Number 38527

Registered practitioner named in the application transmittal papers who acts in a representative capacity under 37 CFR 1.34. See 37 CFR 1.33(a)(1). Registration Number _____

Signature /Brian C. Kunzler/

Typed or Printed Name Brian C. Kunzler

Date November 26, 2013 Telephone 801-994-4646

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.

*Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.33. 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 3 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
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/389,408	03/11/2014	8671132	SJO920020041US1	1229

33595 7590 02/19/2014
INTERNATIONAL BUSINESS MACHINES CORPORATION
9000 SOUTH RITA ROAD
TUCSON, AZ 85744

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 2908 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 Vernon Carlson, San Jose, CA;
Linda Marie Duyanovich, Saratoga, CA;
Toby Lyn Marek, Santa Clara, CA;
David Ronald Nowlen, Morgan Hill, CA;
David Allan Pease, Redwood Estates, CA;
Michael Leo Walker, San Jose, CA;
Paul Harold Hilton, Bragg Creek, CANADA;

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.



DFW

PTO/SB/81 (01-08)

Approved for use through 11/30/2011. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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.

POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Application Number	10/389408
	Filing Date	03-14-2003
	First Named Inventor	James Vernon Carlson
	Title	SYSTEM, METHOD, AND APPARATU
	Art Unit	2443
	Examiner Name	Adnan M. Mirza
	Attorney Docket Number	SJO920020041US1

I hereby revoke all previous powers of attorney given in the above-identified application.

A Power of Attorney is submitted herewith.

OR

I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

33224

OR

I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

The address associated with the above-mentioned Customer Number.

OR

The address associated with Customer Number:

Firm or Individual Name

Address

City State Zip

Country

Telephone Email

I am the:

Applicant/Inventor.

OR

Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) (Form PTO/SB/86) submitted herewith or filed on _____

SIGNATURE of Applicant or Assignee of Record

Signature	<i>P. A. Garnett</i>	Date	March 12, 2014
Name	Prior A. Garnett, Reg. No. 32.136	Telephone	503-747-1447
Title and Company	Senior Counsel, International Business Machines Corporation		

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. 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 3 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.



STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: James Vernon Carlson

Application No./Patent No.: 10/389408 Filed/Issue Date: 03-14-2003

Titled: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT

International Business Machines Corporation, a corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- 1. the assignee of the entire right, title, and interest in;
- 2. an assignee of less than the entire right, title, and interest in (The extent (by percentage) of its ownership interest is _____ %); or
- 3. the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

(the patent application/patent identified above, by virtue of either:

A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 014890, Frame 0983, or for which a copy therefore is attached.

OR

B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

(NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08)

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Pryor A. Gamett
Signature

March 12, 2014
Date

Pryor A. Gamett, USPTO Reg. No. 32,136
Printed or Typed Name

Senior Counsel
Title

This collection of information is required by 37 CFR 3.73(b). 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 36 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 1480, Alexandria, VA 22315-1480. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1480, Alexandria, VA 22313-1480.

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1

33595
INTERNATIONAL BUSINESS MACHINES CORPORATION
9000 SOUTH RITA ROAD
TUCSON, AZ 85744

CONFIRMATION NO. 1229
POWER OF ATTORNEY NOTICE



Date Mailed: 04/02/2014

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/13/2014.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervned as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/rmtturner myles/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1

CONFIRMATION NO. 1229

POA ACCEPTANCE LETTER

33224
INTERNATIONAL BUSINESS MACHINES CORPORATION
650 Harry Road, L2PA/J2C
INTELLECTUAL PROPERTY LAW
SAN JOSE, CA 95120-6099



OC000000067504612

Date Mailed: 04/02/2014

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/13/2014.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/rmtturner myles/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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 NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
10/389,408	8671132	2443	9200



Correspondence Address/Fee Address Change

The following fields have been set to Customer Number 22032 on 05/07/2014

- Maintenance Fee Address

The address of record for Customer Number 22032 is:

22032
Elaine Venturelli
IBM Intellectual Property Law Department
4205 S Miami Blvd
Internal Address T81/503
Durham, NC 27703-9141

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	10/389,408
Filing Date	March 14, 2003
First Named Inventor	James Vernon Carlson
Title	SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT
Art Unit	2443
Examiner Name	MIRZA, ADNAN M.
Attorney Docket Number	D474-012094

SIGNATURE of Applicant or Patent Practitioner			
Signature	/Ian MacKinnon/	Date (Optional)	March 27, 2020
Name	Ian MacKinnon	Registration Number	34,660
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			
<p>NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.</p>			
<input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.			

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

00164

OR

I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

The address associated with the above-mentioned Customer Number

OR

The address associated with Customer Number:

OR

Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Daedalus Blue LLC

Inventor or Joint Inventor (title not required below)

Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Ed Gomez

Date (Optional)

Name

Ed Gomez

Title

Managing Principal

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Daedalus Blue LLC
Application No./Patent No.: 8671132 Filed/Issue Date: March 11, 2014
Titled: SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT
Daedalus Blue LLC, a Limited Liability Company
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. The assignee of the entire right, title, and interest.
2. An assignee of less than the entire right, title, and interest (check applicable box):
- The extent (by percentage) of its ownership interest is ____%. Additional Statement(s) by the owners holding the balance of the interest **must be submitted** to account for 100% of the ownership interest.
 - There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest **must be submitted** to account for the entire right, title, and interest.

3. The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest **must be submitted** to account for the entire right, title, and interest.

4. The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

- B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Inventors To: INTERNATIONAL BUSINESS MACHINES CORPORATION

The document was recorded in the United States Patent and Trademark Office at Reel 013883, Frame 0618, or for which a copy thereof is attached.

2. From: INTERNATIONAL BUSINESS MACHINES CORPORATION To: DAEDALUS GROUP, LLC

The document was recorded in the United States Patent and Trademark Office at Reel 051441, Frame 0097, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). 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: 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.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: DAEDALUS GROUP, LLC To: DAEDALUS BLUE LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 051737, Frame 0191, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Ian MacKinnon/

2020-03-27

Signature

Date

Ian MacKinnon

34,660

Printed or Typed Name

Title or Registration 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.

Electronic Acknowledgement Receipt

EFS ID:	38990639
Application Number:	10389408
International Application Number:	
Confirmation Number:	1229
Title of Invention:	SYSTEM, METHOD, AND APPARATUS FOR POLICY-BASED DATA MANAGEMENT
First Named Inventor/Applicant Name:	James Vernon Carlson
Customer Number:	33224
Filer:	Ian David MacKinnon
Filer Authorized By:	
Attorney Docket Number:	SJO920020041US1
Receipt Date:	31-MAR-2020
Filing Date:	14-MAR-2003
Time Stamp:	21:03:27
Application Type:	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	Power of Attorney	2020-03-27_POA_D474-012094.pdf	293125 33c55a5e654c5f4077a2faa2fd4ee19f78c39df	no	2

Warnings:

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	2020-03-27_373_D474-012094.pdf	121989 c3404b2ed5b5ed53a5441aeec7b7693a3212cdeb	no	3
Warnings:					
Information:					
Total Files Size (in bytes):				415114	
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> 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><u>National Stage of an International Application under 35 U.S.C. 371</u> 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><u>New International Application Filed with the USPTO as a Receiving Office</u> 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>					



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/389,408	03/14/2003	James Vernon Carlson	D474-012094

CONFIRMATION NO. 1229

POA ACCEPTANCE LETTER

164
KINNEY & LANGE, P.A.
312 SOUTH THIRD STREET
MINNEAPOLIS, MN 55415-1002



Date Mailed: 04/07/2020

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/31/2020.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/trwoodson/



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/389,408	03/14/2003	James Vernon Carlson	SJO920020041US1

CONFIRMATION NO. 1229

POWER OF ATTORNEY NOTICE

33224
INTERNATIONAL BUSINESS MACHINES CORPORATION
650 Harry Road, L2PA/J2C
INTELLECTUAL PROPERTY LAW
SAN JOSE, CA 95120-6099



Date Mailed: 04/07/2020

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/31/2020.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervned as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/trwoodson/