

May 10, 2017

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Dear Matt:

Further to my letters dated March 23, 2017, in which I informed Microsoft that three new Bradium patents would soon be issued by the U.S. Patent Office, I write to inform Microsoft that the patents have now been issued. In particular, U.S. Patent 9,635,136 issued on April 25, 2017, U.S. Patent 9,641,644 issued on May 2, 2017, and U.S. Patent 9,641,645 issued on May 2, 2017. Copies of all three patents are attached. As further stated below, Bradium believes that Microsoft is infringing all three patents. I also write to address some of the comments in your letter dated April 20, 2017, which you wrote in response to my March 23, 2017, letters.

Notice of Infringement of U.S. Patent Nos. 9,635,136, 9,641,644, and 9,641,645

Bradium believes that Microsoft has been infringing, and continues to infringe, one or more claims of U.S. Patent Nos. 9,635,136 (the “’136 patent”), 9,641,644 (the “’644 patent”), and 9,641,645 (the “’645 patent”). Microsoft has been on notice regarding these patents at least since the date of my March 23, 2017, letters.

Based on its current investigation, Bradium identifies claim 10 of the ’136 patent, claim 23 of the ’644 patent, and claim 1 of the ’645 patent as examples of infringed claims. Bradium further identifies as infringing products at least those products noted in my March 23, 2017, letters.

Bradium intends to seek the Court’s authorization to add these newly-issued patents to the litigation entitled *Bradium Technologies LLC v. Microsoft Corporation* (D. Del. 15-0031-RGA), as soon as the Court permits.

Contentions in Your Letter Dated April 20, 2017

1. Microsoft’s Invalidity Contentions

Your letter attacks the US Patent Office for allowing Application No. 14/970,526, now issued as the ’644 patent, which is surprising given that the Examiner was provided with and

carefully considered Microsoft's arguments and asserted prior art. In addition, your letter mischaracterizes the Examiner's statement of the basis for allowing the patent. The Examiner specifically stated in allowing Claims 1-65 that "[w]hen considering **the claims as a whole, particularly how these elements interact with the claimed update parcels**, the claims are found to be novel and non-obvious over the prior art." Notice at Page 2, Paragraph 4 (emphasis added). Microsoft's arguments regarding the alleged errors of the Patent Office are unsupported by the evidence and therefore frivolous.

Your letter also persists in attacking the validity of the '794 patent, which is one the patents already in suit, not one of the new patents. Microsoft's continued attack on the patent is also surprising, given that Microsoft challenged the patent in the Patent Office, received a fair hearing, and lost. Further, we note that Microsoft abandoned its appeal to the Federal Circuit on this patent, an admission of defeat on the merits.

2. **Microsoft's Contentions Regarding Its Infringement**

Your letter does not deny that Microsoft infringes the new patents, and instead attacks Bradium for not providing detailed infringement contentions. Your letter misconstrues the purpose of Image Processing's March 23, 2017, letters, which was to provide Microsoft with notice of the expected issuance of the patents and of Bradium's allegations of infringement. As your letter implicitly acknowledges, Microsoft is well aware that it infringes the new patents as well as the previously-issued patents that are asserted in the lawsuit. As you also well know, Bradium has already detailed the evidence of such infringement in its 101 pages of infringement contentions served on Microsoft in the pending lawsuit. Those contentions were provided after Microsoft was required under Court order to make the code for its software available to Bradium for review. Again, Microsoft's position is frivolous.

Microsoft's further contention that it does not infringe the '794 patent, which is not one of the new patents, is also without basis. Microsoft's infringement is clearly demonstrated in the detailed infringement contentions provided in the litigation.

Microsoft's Contentions Regarding Unenforceability

Your letter continues in the same vein to make baseless and scurrilous accusations that the patents are "unenforceable." As you know, the individual who made these accusations refused to show up for his deposition where his statements could be tested under oath. Microsoft's continued reliance on these baseless accusations is shameful and indicative of its weak position.

As requested in the March 23, 2017, letters, Bradium demands that Microsoft cease and desist from its infringement of the newly issued patents, as well as the earlier patents that are already the subject of the lawsuit.

Very truly yours,



Michael Zachary

Enclosures



US009635136B2

(12) **United States Patent**
Levanon et al.

(10) **Patent No.:** **US 9,635,136 B2**
(45) **Date of Patent:** ***Apr. 25, 2017**

(54) **OPTIMIZED IMAGE DELIVERY OVER LIMITED BANDWIDTH COMMUNICATION CHANNELS**

(71) Applicant: **Bradium Technologies LLC**, Suffern, NY (US)

(72) Inventors: **Isaac Levanon**, Raanana (IL); **Yonatan Lavi**, Raanana (IL)

(73) Assignee: **BRADIUM TECHNOLOGIES LLC**, Suffern, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **15/343,052**

(22) Filed: **Nov. 3, 2016**

(65) **Prior Publication Data**

US 2017/0054830 A1 Feb. 23, 2017

Related U.S. Application Data

(63) Continuation of application No. 15/281,037, filed on Sep. 29, 2016, which is a continuation of application (Continued)

(51) **Int. Cl.**
G06F 15/16 (2006.01)
H04L 29/08 (2006.01)

(Continued)

(52) **U.S. Cl.**
CPC **H04L 67/327** (2013.01); **G06F 3/14** (2013.01); **G06T 3/4092** (2013.01); **G09G 5/003** (2013.01);

(Continued)

(58) **Field of Classification Search**
CPC H04N 1/40068; H04N 1/4172; H04N 1/64; H04N 21/234345; H04N 21/234363; (Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,682,869 A * 7/1987 Itoh G06T 9/004 358/426.12
4,972,319 A * 11/1990 Delorme G09B 29/007 340/990

(Continued)

OTHER PUBLICATIONS

Declaration of Yonatan Lavi, Exhibit 1017 with exhibits A-E filed in PTAB Case No. IPR2016-00448, all pages.

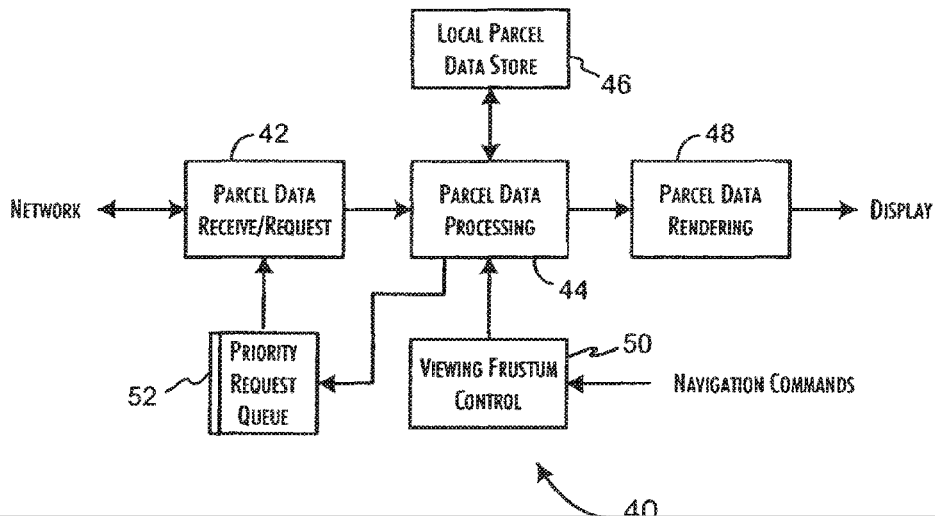
Primary Examiner — David Lazaro

(74) *Attorney, Agent, or Firm* — Anatoly S. Weiser, Esq.; Techlaw LLP.

(57) **ABSTRACT**

Large-scale images are retrieved over network communications channels for display on a client device by selecting an update image parcel relative to an operator controlled image viewpoint to display via the client device. A request is prepared for the update image parcel and associated with a request queue for subsequent issuance over a communications channel. The update image parcel is received from the communications channel and displayed as a discrete portion of the predetermined image. The update image parcel optimally has a fixed pixel array size, is received in a single and or plurality of network data packets, and were the fixed pixel array may be constrained to a resolution less than or equal to the resolution of the client device display.

27 Claims, 5 Drawing Sheets



Related U.S. Application Data

- No. 14/970,526, filed on Dec. 15, 2015, which is a continuation of application No. 14/547,148, filed on Nov. 19, 2014, now Pat. No. 9,253,239, which is a continuation of application No. 13/027,929, filed on Feb. 15, 2011, now Pat. No. 8,924,506, which is a continuation-in-part of application No. 12/619,643, filed on Nov. 16, 2009, now Pat. No. 7,908,343, which is a continuation of application No. 10/035,987, filed on Dec. 24, 2001, now Pat. No. 7,644,131.
- (60) Provisional application No. 60/258,465, filed on Dec. 27, 2000, provisional application No. 60/258,466, filed on Dec. 27, 2000, provisional application No. 60/258,467, filed on Dec. 27, 2000, provisional application No. 60/258,468, filed on Dec. 27, 2000, provisional application No. 60/258,488, filed on Dec. 27, 2000, provisional application No. 60/258,489, filed on Dec. 27, 2000.
- (51) **Int. Cl.**
G06T 3/40 (2006.01)
G06F 3/14 (2006.01)
G09G 5/00 (2006.01)
G06T 11/60 (2006.01)
G06T 15/04 (2011.01)
G06F 17/24 (2006.01)
G06T 19/00 (2011.01)
- (52) **U.S. Cl.**
 CPC *G06F 17/241* (2013.01); *G06T 11/60* (2013.01); *G06T 15/04* (2013.01); *G06T 19/003* (2013.01); *G06T 2207/10032* (2013.01); *G09G 2350/00* (2013.01); *G09G 2370/02* (2013.01); *G09G 2370/16* (2013.01)
- (58) **Field of Classification Search**
 CPC H04N 21/25825; G06F 17/30241; G06F 3/04815; G06T 3/4092; G06T 19/003
 USPC 709/202, 203, 217, 218, 230, 231; 382/305, 232; 345/428, 581, 625
 See application file for complete search history.
- (56) **References Cited**
 U.S. PATENT DOCUMENTS
 5,559,936 A * 9/1996 Poulter G06F 17/30017
 345/428
 5,613,051 A * 3/1997 Iodice G06F 3/14
 345/428

5,929,860 A *	7/1999	Hoppe	G06T 9/001 345/419
5,995,903 A *	11/1999	Smith	G01C 21/00 340/995.26
6,167,442 A *	12/2000	Sutherland	G06F 17/3028 709/217
6,212,301 B1 *	4/2001	Warner	G06T 9/00 382/232
6,246,797 B1 *	6/2001	Castor	H04N 19/63 375/E7.035
6,285,317 B1 *	9/2001	Ong	G01C 21/3647 340/995.2
6,314,452 B1 *	11/2001	Dekel	H04N 19/647 375/E7.045
6,326,965 B1 *	12/2001	Castelli	G06F 17/30241 345/420
6,345,279 B1 *	2/2002	Li	G06F 17/30905
6,346,938 B1 *	2/2002	Chan	G06F 3/04815 345/419
6,397,259 B1 *	5/2002	Lincke	G06F 17/3089 707/E17.116
6,449,639 B1 *	9/2002	Blumberg	G06F 17/30905 707/E17.118
6,496,189 B1 *	12/2002	Yaron	G06T 15/40 345/419
6,525,732 B1 *	2/2003	Gadh	G06T 15/20 345/428
6,608,628 B1 *	8/2003	Ross	G06T 17/20 345/619
6,608,933 B1 *	8/2003	Dowell	G06T 9/007 382/232
6,625,309 B1 *	9/2003	Li	G06T 15/40 345/418
6,704,024 B2 *	3/2004	Robotham	G06F 3/14 345/581
6,704,791 B1 *	3/2004	Harris	G06T 15/20 709/231
6,711,297 B1 *	3/2004	Chang	G06T 1/00 375/E7.065
6,754,365 B1 *	6/2004	Wen	G06T 1/0078 382/100
6,801,665 B1 *	10/2004	Atsumi	H04N 19/70 375/E7.056
6,882,755 B2 *	4/2005	Silverstein	H04N 21/2662 375/E7.011
6,898,311 B2 *	5/2005	Whitehead	H04N 1/64 375/E7.184
6,970,604 B1 *	11/2005	Chai	H04N 19/176 375/E7.056
7,644,131 B2 *	1/2010	Levanon	G06F 3/14 345/625
8,924,506 B2 *	12/2014	Levanon	G06F 3/1454 345/625

* cited by examiner

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