UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
MICROSOFT CORPORATION,
Petitioner,
v.
BRADIUM TECHNOLOGIES LLC,
Patent Owner.
PTAB Case No. IPR2017-01616
Patent No. 9,641,644 B2

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,641,644 B2



TABLE OF CONTENTS

					Page			
EXH	IBIT I	LIST	•••••		iii			
I.	INTRODUCTION1							
II.	MANDATORY NOTICES UNDER 37 C.F.R.§42.8(B)							
III.	REQUIREMENTS FOR INTER PARTES REVIEW							
	A.	GRC	UND	FOR STANDING	3			
	B.	IDE	NTIFIC	CATION OF CHALLENGE	3			
IV.	OVERVIEW OF THE '644 PATENT							
	A.	PRIC	ORITY	DATE OF THE '644 PATENT	5			
	B.	SUM	IMAR	Y OF THE '644 PATENT	5			
	C.	PAT	THE EXAMINER ERRED BY ALLOWING THE '644 PATENT DESPITE CLAIM ELEMENTS TAUGHT BY THE REFERENCES CITED IN THIS PETITION8					
	D.	LEV	EL OF	F ORDINARY SKILL IN THE ART	11			
	E.	PROPOSED CLAIM CONSTRUCTION12						
V.				ASONABLE LIKELIHOOD THAT AT LEAST THE '644 PATENT IS UNPATENTABLE	13			
	A.	THE	CITE	D REFERENCES ARE PRIOR ART	13			
	B.		GROUND 1: CLAIMS 1-65 ARE UNPATENTABLE UNDER 35 U.S.C.§103(A) OVER REDDY AND HORNBACKER					
		1.	PUR PAT	DOY AND HORNBACKER SHOW THAT THE PORTED SOLUTIONS CLAIMED BY THE '644 ENT WERE NOT NOVEL IN THE TECHNICALLD				
			a.	REDDY	15			
			b.	HORNBACKER	19			
		2.		OSITA WOULD HAVE BEEN MOTIVATED TO MBINE REDDY AND HORNBACKER	20			
			a.	CLAIM 1	24			
			b.	CLAIM 23	42			
			c.	CLAIM 44	47			



TABLE OF CONTENTS

(continued)

					Page
			d.	DEPENDENT CLAIMS 2-22, 24-43, AND 45-65	50
	C.	NO S	SECO	NDARY INDICIA OF NON-OBVIOUSNESS	66
VI.	CON	NCLUS	SION		67



EXHIBIT LIST

Ex.1001	U.S. Patent No. 9,641,644 B2 to Levanon et al. ("the '644 Patent")				
Ex.1002	U.S. Patent No. 9,253,239 B2 to Levanon et al. ("the '239 Patent")				
Ex.1003	PCT Publication No. WO 99/41675 to Cecil V. Hornbacker, III ("Hornbacker")				
Ex.1004	Reddy <i>et al.</i> , "TerraVision II: Visualizing Massive Terrain Databases in VRML," IEEE Computer Graphics and Applications March/April 1999, pp. 30-38 ("Reddy" with added paragraph numbers by Petitioner for ease of reference in the Petition)				
Ex.1005	Declaration of Prof. William R. Michalson ("Michalson Decl.")				
Ex.1006	EP1070290 to Cecil V. Hornbacker, III				
Ex.1007	Printout of IEEE Explore citations to Reddy et al. (Ex.1004)				
Ex.1008	Printout of Google Scholar citations to Reddy et al. (Ex.1004)				
Ex.1009	Cover page and authenticating declaration of Reddy <i>et al.</i> (Ex.1004) from British Library				
Ex.1010	Cover page of Reddy et al. (Ex.1004) from Linda Hall Library				
Ex.1011	B. Fuller and I. Richer, The MAGIC Project: From Vision to Reality, IEEE Network May/June 1996, pp. 15-25				
Ex.1012	U.S. Patent No. 7,908,343 B2 to Levanon et al. ("the '343 Patent")				
Ex.1013	U.S. Patent No. 8,924, 506 B2 to Levanon et al. ("the '506 Patent")				
Ex.1014	Visualization System for SRI's Digital Earth Proposal, dated April 16, 1999, available at http://www.ai.sri.com/digitalearth/proposal/visualization-system.html				
Ex.1015	Isaac Levanon Linkedin profile				
E 1017 1017 N. H. H. W. D. H.					



Ex.1016-1017 Not Used in This Proceeding

Ex.1018 Deposition Transcript of Peggy Agouris, dated January 13, 2017 Ex.1019 Deposition Transcript of Isaac Levanon, dated January 18, 2017 Ex.1020 Fujitsu Technical Reference Guide, Stylistic 2300 (1998) Ex.1021 Bradium Provisional Application No. 60/258465 Ex.1022 The Universal Grid System, NGA Office of GEOINT Sciences, March 2007 Ex.1023 Wolford, B., FXT1: 3dfx Texture Compression, Last Updated September 14, 1999, available at http://web.archive.org/web/ 20000114134331/http://www.combatsim.com/htm/sept99/3dfxtc1.htm Ex.1024 U.S. Patent Publication No. 2008/0294332 A1 to Levanon et al. Ex.1025 U.S. Patent No. 7,561,156 B2 to Levanon et al. Ex.1026 May 10, 2017 letter from M. Zachary to M. Bernstein Ex.1027-1029 Not Used in This Proceeding Ex.1030 Barclay, T. et al., Microsoft TerraServer: A Spatial Data Warehouse, Microsoft Research, June 1999, Revised February 2000. Ex. 1031 Intel Microprocessor Quick Reference Guide - Product Family, available at http://www.intel.com/pressroom/kits/quickreffam.htm Barclay, T. et al., Microsoft TerraServer: A Spatial Data Warehouse, Ex. 1032 Microsoft Research, June 1999. Microsoft Terraserver Abstract, Cornell University Library, Submitted Ex. 1033 September 5, 1998. Ex. 1034 Barclay, T. et al., The Microsoft TerraServer, Microsoft Research,



June 1998.

DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

