Third Declaration of Ian Crayford in Support of Petition for *Inter Partes* Review of U.S. Patent No. 8,155,012

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Juniper Networks, Inc., Ruckus Wireless, Inc., Brocade Communication

Systems, Inc., and Netgear, Inc.,

Petitioners

v.

ChriMar Systems, Inc.,

Patent Owner

Case No. IPR2016-01389

U.S. Patent No. 8,155,012

Third Declaration of Ian Crayford

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U.S. Patent No. 8,155,012

PETITIONERS' EXHIBITS FILED IN IPR2016-01389

Number	Short Name	Description
1001	'012 Patent	U.S. Patent 8,155,012 to Austermann, III et al.
1002	Crayford-1	Declaration of Ian Crayford in Support of Petition
1003	Hunter	WO 96/23377 to Hunter
1004	Bulan	U.S. Patent 5,089,927 to Bulan et al.
1005	Bloch	U.S. Patent 4,173,714 to Bloch et al.
1006	IEEE-1993	IEEE International Standard ISO/IEC 8802-3: 1993
1007[1]	IEEE-1995 (part 1)	IEEE Standard 802.3u-1995
1008	IEEE-1995 (part 2)	IEEE Standard 802.3u-1995
1009	Huizinga	U.S. Patent 4,046,972 to Huizinga et al.
1010	Blacharski	Dan Blacharski, "Maximum Bandwith: A Serious Guide to High-Speed Networking", Que Corporation (1997)

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[1] IEEE Standard 802.3u-1995 has been separated into Exhibits 1007 and 1008 to comply with file size limitations for Exhibits. Exhibits 1007 and 1008 are continuously paginated, from 1-200, and 201-415, respectively.

Third Declaration of Ian Crayford in Support of Petition for *Inter Partes* Review of U.S. Patent No. 8,155,012

Number	Short Name	Description
1011	Katz	Randy H. Katz, "High Performance Network and Channel-Based Storage", Report UCB/CSD 91/650, September 1991
1012	Related Matters	List of Pending Cases Involving U.S. Patent 8,155,012
1013	Crayford C.V.	Resume of Ian Crayford
1014	IEEE Press Release	IEEE Standards Association News & Events: Press Releases "IEEE 802.3 Standard for Ethernet Marks 30 Years of Innovation and Global Market Growth"
1015	Complaint	*Chrimar Systems, Inc. et al. v. Juniper Networks, Inc.*, Case No. 6:15-cv-00630 (N.D. Cal.), Dkt. No. 1.
1016	'058 patent	U.S. Patent 6,247,058 to Miller et al.
1017	'152 patent	U.S. Patent 6,865,152 to Luhmann
1018	N/A	Gordnia Declaration in support of *pro hac vice* motion
1019	N/A	Kagan Declaration in support of *pro hac vice* motion
1020	Madisetti Declaration	Deposition transcript for the June 21 and June 22, 2017 deposition of Dr. Vijay Madisetti
1021	Level One	Level One LXT914 Data Sheet, June 1997, Revision 2.2
1022	Pulse	Pulse LAN Isolation Transformer Catalog, May 1998
1023	Valor	Valor Electronics Products Catalog, 1992 (excerpts)

Third Declaration of Ian Crayford in Support of Petition for *Inter Partes* Review of U.S. Patent No. 8,155,012

Number	Short Name	Description
1024	Halo	Halo TD43-2006K Drawing, December 18, 1996
1025	Fisher or '998 patent	U.S. Patent 5,994,998 to Fisher et al.
1026	'911 Patent	U.S. Patent 6,140,911 to Fisher et al.
1027	De Nicolo or '468 patent	U.S. Patent 6,115,468 to De Nicolo
1028	'356 patent	U.S. Patent 6,295,356 to De Nicolo
1029	Smith	U.S. Patent 5,321,372 to Smith
1030	Chrimar Presentation to IEEE	"Power on the 802.3 connection July 11th & 12th, 2000 Power, Detection and Discovery over the Existing Ethernet Wiring" by CMS Technologies
1031	Madisetti Deposition Exhibit 2	Madisetti Deposition Exhibit 2, Belden "Conduit and Media Twist" white paper, August 25, 1997
1032	IEEE 802.9	IEEE 802.9 Standard, 1994
1033	IEEE Dictionary	The IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Edition, 1996 (excerpts)
1034	Madisetti Deposition Exhibit 1	Madisetti Deposition Exhibit 1, June 22, 2017
1035	Lucent	Lucent Technologies, "TransTalk™ 9000 Digital Wireless System MDW 9030P Wireless Pocketphone Installation and Use," March 1997 (excerpts)
1036	Agenda	Steve Carlson, "802.3 DTE Power via MDI Study Group" (November 1999)
1037	Muir	Robert Muir, "DTE power over MDI - DTE

Third Declaration of Ian Crayford in Support of Petition for *Inter Partes* Review of U.S. Patent No. 8,155,012

Number	Short Name	Description
		Discovery Process Proposal" (November 1999)
1038	Frazier	Howard Frazier, Karl Nakamura and Roger Karam, "Power over the MDI" (January 2000)
1039	Karam	Roger Karam, "Common mode Rejection Through Center Tap of Magnetics" (March 2000)
1040	Nootbar	Michael Nootbar, "Why Power Over Signal Pairs?" (March 2000)
1041	Love	Robert Love and Dave Kooistra, "User Requirements for Cabling Support" (May 2000)
1042	Nakamura	Karl Nakamura and Roger Karam, "Power over the MDI using the two Signal Pairs" (May 2000)
1043	'107 patent	U.S. Patent 8,942,107 to Austermann, III et al.
1044	'760 patent	U.S. Patent 8,902,760 to Austermann, III et al.
1045	'838 patent	U.S. Patent 9,019,838 to Austermann, III et al.
1046	Crayford-2	Second Declaration of Ian Crayford (in Support of Reply)

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