IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

NETWORK SYSTEM TECHNOLOGIES, LLC,	§	
	§	
Plaintiff,	§	
	§	Civil Action No. 2:22-cv-00482-RWS-JBB
v.	§	
	§	**JURY TRIAL DEMANDED**
TEXAS INSTRUMENTS INCORPORATED;	§	
FORD MOTOR COMPANY,	§	
	§	
Defendants.	§	

LOCAL PATENT RULE 4-3
JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

Pursuant to the Court's Docket Control Order (Dkt. 49) and P.R. 4-3, Plaintiff Network System Technologies, LLC ("Plaintiff" or "NST") and Defendants Texas Instruments Incorporated ("TI") and Ford Motor Company ("Ford") (collectively, "Defendants") submit their Joint Claim Construction and Prehearing Statement regarding U.S. Patent Nos. 7,366,818 ("'818 patent"), 7,373,449 ("'449 patent"), 7,594,052 ("'052 patent"), 7,769,893 ("'9893 patent"), 8,072,893 ("'2893 patent"), and 8,086,800 ("'800 patent") (collectively, "Asserted Patents"). *See*, *generally*, Compl., Exs. 1–6.

I. P.R. 4-3(1): AGREED UPON CONSTRUCTIONS

The parties attach a chart hereto as Appendix 1, which shows the parties' agreed upon construction of certain claim terms, phrases, and clauses.

II. P.R. 4-3(2): EACH PARTY'S PROPOSED CONSTRUCTIONS

The parties attach a chart hereto as Appendix 2, which shows each party's proposed construction of each disputed claim term, phrase, or clause. The parties also attach charts hereto as Appendices 3–4, which show each party's identification of all references from the specification or prosecution history that support that construction, and an identification of any extrinsic evidence known to the party on which it intends to rely either to support its proposed construction or to oppose any other party's proposed construction, including but not limited to, as permitted by law, dictionary definitions, citations to learned treatises and prior art, and testimony of percipient and expert witnesses.

III. P.R. 4-3(3): ANTICIPATED TIME REQUESTED FOR THE CLAIM CONSTRUCTION HEARING

The parties anticipate a combined total of 4 hours for presentation at the hearing.

IV. P.R. 4-3(4): WITNESSES AT THE HEARING

The parties do anticipate calling witnesses at the hearing.

V. P.R. 4-3(5): OTHER MATTERS TO CONCURRENTLY ADDRESS

The parties are unaware of any issues that would be appropriate for a prehearing conference.

Date: August 17, 2023

Respectfully submitted,

/s/ Daniel S. Stringfield w/ permission by William E. Davis, III
William E. Davis, III
Texas Bar No. 24047416
Ty Wilson
DAVIS FIRM PC
213 N. Fredonia Street, Suite 230
Longview, TX 75601
903-230-9090
bdavis@davisfirm.com
twilson@davisfirm.com

Daniel S. Stringfield (lead counsel)
NIXON PEABODY LLP
70 West Madison St., Suite 5200
Chicago, IL 60602
312-977-4130
dstringfield@nixonpeabody.com
nst@nixonpeabody.com

Erica J. Van Loon
Vincent C. Capati
NIXON PEABODY LLP
300 S. Grand Avenue, Suite 4100
Los Angeles, CA 90071
213-629-6000
evanloon@nixonpeabody.com
vcapati@nixonpeabody.com

David R. Kocan
NIXON PEABODY LLP
One Embarcadero Center, 32nd Floor
San Francisco, CA 94111
415-984-8282
dkocan@nixonpeabody.com

Attorneys for Plaintiff
Network System Technologies, LLC

/s/ Anupam Sharma
Amanda Abraham
THE ROTH LAW FIRM
115 N. Wellington, Suite 200
P O Box 876
Marshall, TX 75671-0876
903-935-1665
aa@rothfirm.com

Robert T. Haslam (lead counsel)
Anupam Sharma
Hyun S. Byun
COVINGTON & BURLING LLP
3000 El Camino Real
5 Palo Alto Square
Palo Alto, CA 94306-2112
650-632-4700
rhaslam@cov.com
asharma@cov.com
hbyun@cov.com

Ranganath Sudarshan
COVINGTON & BURLING LLP
One City Center
850 Tenth Street, NW
Washington, DC 20001-4956
202-662-5346
rsudarshan@cov.com

Udit Sood
COVINGTON & BURLING LLP
Salesforce Tower
415 Mission Street, Ste 5400
San Francisco, CA 94111
415-591-6000
usood@cov.com

Wesley Hill
Andrea Leigh Fair
WARD, SMITH & HILL, PLLC
1507 Bill Owens Parkway
Longview, TX 75604
903-757-6400
wh@wsfirm.com

andrea@wsfirm.com

Attorneys for Defendant
Texas Instruments Incorporated

/s/ Charles J Monterio
Jennifer Parker Ainsworth
WILSON, ROBERTSON & CORNELIUS, P.C.
909 ESE Loop 323, Suite 400
Tyler, TX 75701
903-509-5000
jainsworth@wilsonlawfirm.com

Charles J Monterio (lead counsel)
Justin E. Pierce
VENABLE LLP
600 Massachusetts Ave, NW
Washington, DC 20001
202-344-4475
cjmonterio@venable.com
jepierce@venable.com

J Daniel Kang
VENABLE LLP
151 W. 42nd Street, 49th FL
New York, NY 10036
212-503-9838
jdkang@venable.com

Attorneys for Defendant
Ford Motor Company

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this document was served on all counsel of record via electronic mail on this August 17, 2023.

/s/ *William E. Davis, III*
William E. Davis, III

APPENDIX 1

Agreed Upon Constructions

A. Terms Common to Multiple Asserted Patents

Term or Phrase & Asserted Patent(s) and Claim(s)	Agreed Upon Constructions
"connection properties" '449 patent: claims 10, 13, 14, 15, 16 '052 patent: claim 6 '9893 patent: claims 4, 6, 8	"properties of a connection, including ordering (data transport in order), flow control (a remote buffer is reserved for a connection, and a data producer will be allowed to send data only when it is guaranteed that space is available for the produced data), throughput (a lower bound on throughput is guaranteed), latency (upper bound for latency is guaranteed), the lossiness (dropping of data), transmission termination, transaction completion, data correctness, priority, or data delivery"
"flow control" '449 patent: claim 13 '9893 patent: claim 8 '800 patent: claim 12	"controlling flow whereby a remote buffer is reserved for a connection, and a data producer will be allowed to send data only when it is guaranteed that space is available for the produced data"

B. '818 Patent

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
Whether the preamble is a limitation ("Integrated circuit comprising . . . from the second modules to the first module" 12:5-16)	Limiting

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
'818 patent: claim 1	

C. '449 Patent

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
Whether the preamble is a limitation ("Method for exchanging messages . . . the second module to the first module" 19:21-30) '449 patent: claim 10	Limiting
"at least one of a switch and a router" '449 patent: claim 11	"at least one switch and at least one router"

D. '052 Patent

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
Whether the preamble is a limitation ("Method of communication service mapping . . . second processing modules (S)" 10:7-18) '052 patent: claim 6	Limiting

E. '9893 Patent

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
Whether the preamble is a limitation ("A method . . . or a register address" 12:40-53) '9893 patent: claim 4	Limiting

F. '2893 Patent

Term or Phrase & Asserted Patent and Claim(s)	Agreed Upon Constructions
Whether the preamble is a limitation ("A method of designing circuits . . . via a network interface" 12:22-33) '2893 patent: claim 10	Limiting

APPENDIX 2

Disputed Terms for Construction

A. Terms Common to Multiple Asserted Patents

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"network" '818 patent: claims 1, 2 '449 patent: claims 10, 11, 12, 14 '9893 patent: claims 4, 11 '2893 patent: claims 1, 10	"multi-hop interconnection between modules separated by one or more network nodes"	Plain and ordinary meaning	No
"integrated circuit" '818 patent: claims 1, 2, 3, 5, 6, 7 '449 patent: claim 10 '052 patent: claim 6 '9893 patent: claim 4 '2893 patent: claims 1, 10 '800 patent: claim 12	"interconnected circuitry on a chip"	Plain and ordinary meaning	No

B. '818 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"interface means" / "interface means (ANIP, PNIP) for managing the interface between a module (M, S) and the network (N, RN) wherein said interface means (ANIP, PNIP) comprises a first dropping means (DM) for dropping data, and wherein the dropping of data and therefore the transaction completion can be controlled by the interfaces means" '818 patent: claims 1, 6, 7	"interface circuit that connects a module to a network" / NST incorporates its definitions for the terms "interface means," "network," and "dropping means." The remaining parts of this term should be afforded their plain and ordinary meanings. NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction: **Function**: With respect to claim 1, "manage the interface between a module and the network, and control the dropping of data and therefore the transaction completion"	Subject to Section 112 ¶ 6. **Function**: With respect to claim 1, "managing the interface between a module (M, S) and a network (N, RN) and controlling dropping of data and transaction completion" With respect to claim 6, "storing received error messages" With respect to claim 7, "not dropping error messages" **Structure**: With respect to claim 1, "structure for dropping means and buffer to accommodate a return status message for outstanding transactions, as disclosed in the '818 patent at 8:40–45, 9:1–2, and 9:11–36." Otherwise, indefinite.	Yes, if held indefinite.

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
	With respect to claim 6, the function according to claim 1 and "store received error messages" With respect to claim 7, the function according to claim 1 and "not drop error messages" **Structure**: "circuit"		
"dropping means" / "one dropping means (DM) for dropping data exchanged by said first and second module (M, S) / a first dropping means (DM) / said dropping means (DM)" '818 patent: claims 1, 3, 5	"circuit configured to drop messages" / NST incorporates its definition for the term "dropping means." The remaining parts of this term should be afforded their plain and ordinary meanings. NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction:	Subject to Section 112 ¶ 6. **Function**: With respect to claim 1, "dropping data exchanged by first and second module (M, S)" With respect to claim 3, "creating error messages" With respect to claim 5, "sending error messages" **Structure**: With respect to claim 1, "buffer that implements a 'milk' policy (drops oldest data) or a 'wine'	Yes, if held indefinite.

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
	Function: With respect to claim 1, "drop data exchanged by said first and second module" With respect to claim 3, the function according to claim 1 and "create an error message if data is dropped" With respect to claim 5, the function according to claim 1 and "send said error message to said first module" **Structure**: "circuit"	policy (drops newest data) when the buffer overflows, as disclosed in the '818 patent at 7:51–56; 8:38–39, 8:64–66." Otherwise, indefinite. With respect to claims 3 and 5, "structure for claim 1 with additional structure disclosed in the '818 patent at 9:2–10." Otherwise, indefinite.	

C. '449 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"communication manager" '449 patent: claim 10	"circuit that manages communication between modules"	Subject to Section 112 ¶ 6. **Function**: receiving a request for a connection from a first module, forwarding the request	Yes, if held indefinite.

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
	NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction: **Function**: "forward a request for a connection to a resource manager" **Structure**: "circuit"	to a resource manager, and receiving the availability of the target connection from the resource manager **Structure**: Indefinite	
"resource manager determining whether a target connection with the desired connection properties is available" '449 patent: claims 10, 14, 15	"resource manager" means "circuit that manages network resources." The remaining parts of this term should be afforded their plain and ordinary meanings.	"resource manager determining whether a target connection with the desired connection properties is available, where the resource manager is not an arbiter that selects the output based on input priorities"	

D. '052 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"interconnect means" '052 patent: claim 6	"multi-hop interconnection between modules separated by one or more network nodes"	Plain and ordinary meaning. Not subject to Section 112 ¶ 6.	No

E. '9893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"multicast" '9893 patent: claims 7, 10	"between one and each of a selected group of others collectively"	"a connection in which the messages are duplicated, sent to each receiving module, executed by each receiving module, but no return messages are allowed"	No
"narrowcast" '9893 patent: claims 7, 10	"between one and each of a selected group of others individually"	"a connection in which the messages are duplicated, sent to each receiving module, but executed by exactly one receiving module"	No

F. '2893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"data communication introducing a delay of M*N cycles" '2893 patent: claim 1	"data storage elements introducing a delay of M*N cycles"	Indefinite	Yes, if held indefinite.

G. '800 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Defendants' Proposed Constructions	Claim Dispositive
"an optimal moment for sending the data" '800 patent: claim 12	Plain and ordinary meaning	Indefinite	Yes, if held indefinite.
"optimal amount of data to be buffered" '800 patent: claim 12	Plain and ordinary meaning	Indefinite	Yes, if held indefinite.

APPENDIX 3

Plaintiff's Proposed Constructions for Disputed Terms[1]

A. Terms Common to Multiple Asserted Patents

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"network" '818 patent: claims 1, 2 '449 patent: claims 10, 11, 12, 14 '9893 patent: claims 4, 11 '2893 patent: claims 1, 10	"multi-hop interconnection between modules separated by one or more network nodes"	*See*, *e.g.*, '818, 1:59-65; 1:67-2:16; 3:36-41; 3:47-51 '449, 1:58-64; 1:66-2:15; 3:47-52; 3:58-62; 4:54-56; 15:4-6 '052, 1:56-62; 1:64-2:12; 2:32-37 '9893, 1:57-63; 1:65-2:11; 2:37-40; 2:46-51; 9:38-40 '800, 1:56-62; 1:64-2:2; 2:3-8 Figures of the Asserted Patents Dally, W. and Towles, B., Route Packets, Not Wires: On-chip Interconnection Networks, Proc. 38th Design Automation Conference (2001) "The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

[1] To the extent not expressly cited above, additional citations to supporting evidence may be found in the Declaration of Dr. Erik Chmelar. Plaintiff reserves the right to rely on evidence Defendants cite, rely on, or otherwise present, and to present evidence rebutting or otherwise providing context to the same.

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"integrated circuit" '818 patent: claims 1, 2, 3, 5, 6, 7 '449 patent: claim 10 '052 patent: claim 6 '9893 patent: claim 4 '2893 patent: claims 1, 10 '800 patent: claim 12	"interconnected circuitry on a chip"	*See*, *e.g.*, '818, 1:16-36; 1:51-53; 1:63-65; 1:65-2:2; 1:67-2:43 '449, 1:15-35; 1:50-52; 1:62-64; 1:64-2:1; 1:66-2:42 '052, 1:14-32; 1:48-50; 1:60-62; 1:62-66; 1:64-2:12 '9893, 1:14-34; 1:49-51; 1:61-63; 1:63-67; 1:65-2:36 '2893, 1:8-13 '800, 1:14-32; 1:48-50; 1:60-62; 1:62-66; 1:64-2:2 Figures of the Asserted Patents Weste, N. and Harris, D., "CMOS VLSI Design: A Circuits and Systems Perspective," 4th ed., Addison Wesley (2010), p. 29 Rabaey, J., et al., "Digital Integrated Circuits: A Design Perspective," 2nd ed., Pearson (2003), pp. 380-381, 395, 487 "The Computer Glossary," 8th ed. (1998) "IEEE Standard Dictionary of Electrical and Electronics Terms," 5th ed., (1993)

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
		"The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

B. '818 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"interface means" / "interface means (ANIP, PNIP) for managing the interface between a module (M, S) and the network (N, RN) wherein said interface means (ANIP, PNIP) comprises a first dropping means (DM) for dropping data, and wherein the dropping of data and therefore the transaction completion can be controlled by the interfaces means" '818 patent: claims 1, 6, 7	"interface circuit that connects a module to a network" / NST incorporates its definitions for the terms "interface means," "network," and "dropping means." The remaining parts of this term should be afforded their plain and ordinary meanings. NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction: **Function**: With respect to claim 1, "manage the interface between a module and the network, and control the dropping of data and therefore the transaction completion"	*See*, *e.g.*, '818, Abstract; 5:37-40; 5:37-44; 5:40-41; 5:42-44; 5:64-66; 5:64-67; 7:23-27; 7:27-31; Figures "IEEE Standard Dictionary of Electrical and Electronics Terms," 5th ed., (1993) "The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
	With respect to claim 6, the function according to claim 1 and "store received error messages" With respect to claim 7, the function according to claim 1 and "not drop error messages" **Structure**: "circuit"	
"dropping means" / "one dropping means (DM) for dropping data exchanged by said first and second module (M, S) / a first dropping means (DM) / said dropping means (DM)" '818 patent: claims 1, 3, 5	"circuit configured to drop messages" / NST incorporates its definition for the term "dropping means." The remaining parts of this term should be afforded their plain and ordinary meanings. NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction: **Function**: With respect to claim 1, "drop data exchanged by said first and second module"	*See*, *e.g.*, '818, Abstract; 5:27-28; 5:37-41; 5:37-42; 5:50-54; 5:60-63; 7:23-48; 7:48-50; Figures "IEEE Standard Dictionary of Electrical and Electronics Terms," 5th ed., (1993) "The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
	With respect to claim 3, the function according to claim 1 and "create an error message if data is dropped" With respect to claim 5, the function according to claim 1 and "send said error message to said first module" **Structure**: "circuit"	

C. '449 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"communication manager" '449 patent: claim 10	"circuit that manages communication between modules" NST disagrees that this term is governed by Section 112, para 6. Nonetheless, if the Court holds that this term is so governed, NST proposes the following construction: **Function**: "forward a request for a connection to a resource manager" **Structure**: "circuit"	*See*, *e.g.*, '449, Abstract; 1:7-11; 7:15-18; 7:35-38; 8:7-11; 9:17-21; 9:66-10:3; 9:66-10:6; 10:19-46; Figures "IEEE Standard Dictionary of Electrical and Electronics Terms," 5th ed., (1993) "The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"resource manager determining whether a target connection with the desired connection properties is available" '449 patent: claims 10, 14, 15	"resource manager" means "circuit that manages network resources." The remaining parts of this term should be afforded their plain and ordinary meanings.	*See*, *e.g.*, '449, Abstract; 1:7-11; 10:19-46; 10:24-37; 10:34-40; 10:41-44; 10:41-46; 10:55-61; 7:15-18; 7:35-39; 7:46-51; 8:7-11; 9:17-21; 9:66-10:3; 9:66-10:6; Figures Prosecution History of U.S. Patent No. 7,373,449, pp. 12, 22-23, 19-20, 30-33. "IEEE Standard Dictionary of Electrical and Electronics Terms," 5th ed., (1993) "The Authoritative Dictionary of IEEE Standards Terms," 7th ed. (2000)

D. '052 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"interconnect means" '052 patent: claim 6	"multi-hop interconnection between modules separated by one or more network nodes"	*See*, *e.g.*, '052, Abstract; 1:56-62; 1:7-8; 2:33-36; 3:15-18; 3:18-22; 3:51-54; 4:1-4; 4:30-3; 4:37-39; 4:50-5:5; 5:24-31; 5:27-28; 5:6-7; 6:13-19; 8:7-8; 8:7-9; 8:9-12; Figures

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
		'818, 1:59-65; 3:47-51 '449, 1:58-64; 3:58-62 '9893, 1:57-63 '800, 56-62 Dally, W. and Towles, B., Route Packets, Not Wires: On-chip Interconnection Networks, Proc. 38th Design Automation Conference (2001)

E. '9893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"multicast" '9893 patent: claims 7, 10	"between one and each of a selected group of others collectively"	*See*, *e.g.*, '9893 at 5:58-67, 7:29-53, 7:42–43 William Stallings, Data & Computer Communications, 42 (6th ed. 1999) Authoritative Dictionary of IEEE Standards (7th ed. 2000) Webster's New World Dictionary of Computer Terms (5th ed. 1994)

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"narrowcast" '9893 patent: claims 7, 10	"between one and each of a selected group of others individually"	*See*, *e.g.*, '9893 at 4:58–60, 5:49–52, 6:1-8, 7:5-53, 7:9–13

F. '2893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"data communication introducing a delay of M*N cycles" '2893 patent: claim 1	"data storage elements introducing a delay of M*N cycles"	*See*, *e.g.*, '2893, Abstract; 2:12-13; 3:49-51; 5:55-56; 6:24-26; 9:63-64; Figures; Claims Stallings, W., "Data & Computer Communications," 6th ed., Prentice-Hall (2000) (Sec. 1.2 Data Communications)

G. '800 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"an optimal moment for sending the data" '800 patent: claim 12	Plain and ordinary meaning	*See*, *e.g.*, '800, 3:14; 5:31-32; 7:4-14; 7:4-6; 11:48-50; 12:16-32; Figures

Term or Phrase & Asserted Patent(s) and Claim(s)	Plaintiff's Proposed Constructions	Evidence
"optimal amount of data to be buffered" '800 patent: claim 12	Plain and ordinary meaning	*See*, *e.g.*, '800, 3:35-37; 4:18-28; 4:49-57; 6:15-17; 6:22-30; 6:31-36; 7:23-28; 7:44-51; Figures

APPENDIX 4

Defendants' Proposed Constructions for Disputed Terms

A. Terms Common to Multiple Asserted Patents

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"network" '818 patent: claims 1, 2 '449 patent: claims 10, 11, 12, 14 '9893 patent: claims 4, 11 '2893 patent: claims 1, 10	Plain and ordinary meaning	• '818 patent at Abstract, 2:44–3:9, 5:21–24, 5:45–49, Figs. 1–2. • '449 patent at Abstract, 2:43–3:20, 6:19–42, 8:13–24, 8:45–50, 14:64–15:8, Figs. 1–3. • '9893 patent at Abstract, 1:6–10, 1:60–63, 3:44–4:28, 5:12–52, 6:14–51, Figs. 1–3. • '2893 patent at Abstract, 1:5–7, 1:22–25, Figs. 1, 3. • Declaration of Dr. Mitchell Thornton • Evidence cited by NST • *Network*, Newton's Telecom Dictionary 503 (18th ed. 2002). • *LAN*, Newton's Telecom Dictionary 420 (18th ed. 2002). • *MAN*, Newton's Telecom Dictionary 454 (18th ed. 2002). • *Network*, New Oxford American Dictionary 1150 (2001). • *Network*, Microsoft Computer Dictionary 362 (5th ed. 2002). • *Network*, The Authoritative Dictionary of IEEE Standards Terms 725 (7th ed.

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
		2000). • *Network*, Cisco Systems' Dictionary of Internetworking Terms and Acronyms 243 (2001). • *Network*, American Heritage Dictionary of the English Language 1181 (4th ed. 2000).
"integrated circuit" '818 patent: claims 1, 2, 3, 5, 6, 7 '449 patent: claim 10 '052 patent: claim 6 '9893 patent: claim 4 '2893 patent: claims 1, 10 '800 patent: claim 12	Plain and ordinary meaning	• '449 patent at Abstract, 1:7–11, 7:8–18, 8:13–15. • '818 patent at Abstract, 1:8–11, 5:17–31. • '800 patent at Abstract, 1:7–10, 3:35–40, 4:28–40. • '052 patent at Abstract, 1:6–10, 1:14–32, 3:6–27, 3:45–61, 4:13–14. • '9893 patent at Abstract, 1:6–10, 1:14–34, 3:36–56, 3:64–4:2, 4:16–28. • '2893 patent at Abstract, 1:5–18, 1:62–2:14, 3:34–4:7, 4:25–44, Figs. 1, 3, 5. • Declaration of Dr. Mitchell Thornton • Evidence cited by NST

B. '818 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"interface means" /	Subject to Section 112 ¶ 6.	• '818 patent at 5:37–44, 5:64–6:3, 8:40–45, 9:1–2, 9:11–36.

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"interface means (ANIP, PNIP) for managing the interface between a module (M, S) and the network (N, RN) wherein said interface means (ANIP, PNIP) comprises a first dropping means (DM) for dropping data, and wherein the dropping of data and therefore the transaction completion can be controlled by the interfaces means" '818 patent: claims 1, 6, 7	**Function**: With respect to claim 1, "managing the interface between a module (M, S) and a network (N, RN) and controlling dropping of data and transaction completion" With respect to claim 6, "storing received error messages" With respect to claim 7, "not dropping error messages" **Structure**: With respect to claim 1, "structure for dropping means and buffer to accommodate a return status message for outstanding transactions, as disclosed in the '818 patent at 8:40–45, 9:1–2, and 9:11–36." Otherwise, indefinite.	• Declaration of Dr. Mitchell Thornton • Evidence cited by NST
"dropping means" / "one dropping means (DM) for dropping data exchanged by said first and second module (M, S) / a first dropping means (DM) / said dropping means (DM)" '818 patent: claims 1, 3, 5	Subject to Section 112 ¶ 6. **Function**: With respect to claim 1, "dropping data exchanged by first and second module (M, S)" With respect to claim 3, "creating error messages"	• '818 patent at 6:49–52, 7:16–19,7:48–50, 7:54–56, 8:38–39, 8:64–67, 9:1–49, Fig. 2. • '818 patent File History at 06/29/2006 Office Action (PDF p.p. 269–71). • '818 patent File History at 09/29/2006 Applicant Response (PDF p.p. 282–84). • '818 patent File History at 01/12/2007 Office Action (PDF p.p. 291–94).

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
	With respect to claim 5, "sending error messages" **Structure**: With respect to claim 1, "buffer that implements a 'milk' policy (drops oldest data) or a 'wine' policy (drops newest data) when the buffer overflows, as disclosed in the '818 patent at 7:51–56; 8:38–39, 8:64–66." Otherwise, indefinite. With respect to claims 3 and 5, "structure for claim 1 with additional structure disclosed in the '818 patent at 9:2–10." Otherwise, indefinite.	• '818 patent File History at 04/11/2007 Applicant Response (PDF p.p. 302–07). • U.S. Patent No. 6,885,638 ("Xu") (Admitted Prior Art) at 4:2–5. • Declaration of Dr. Mitchell Thornton • Evidence cited by NST • *drop, drop and insert*, Hargrave's Communications Dictionary (2001)

C. '449 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"communication manager" '449 patent: claim 10	Subject to Section 112 ¶ 6. **Function**: receiving a request for a connection from a first module, forwarding the request to a resource manager, and receiving the availability of the target connection from the resource manager	• '449 patent at 7:35–38, 7:40–51,7:66–67, 9:66–10:6, 10:19–22, 10:24–26, 10:41–61, Fig 3. • '449 patent File History at 03/02/2007 Office Action (PDF p.p. 115–16). • '449 patent File History at 08/23/2007 Office Action (PDF p.p. 139–40). • '449 patent File History at 11/20/2007 Applicant Response (PDF p.p. 146–

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
	Structure: Indefinite	52). • Declaration of Dr. Mitchell Thornton • Evidence cited by NST
"resource manager determining whether a target connection with the desired connection properties is available" '449 patent: claims 10, 14, 15	"resource manager determining whether a target connection with the desired connection properties is available, where the resource manager is not an arbiter that selects the output based on input priorities"	• '449 patent at 7:45–51, 10:24–26. • '449 patent File History at 08/23/2007 Office Action (PDF p.p. 136–42) • '449 patent File History at 11/20/2007 Applicant Response (PDF p.p. 146–53) • Declaration of Dr. Mitchell Thornton • Evidence cited by NST

D. '052 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"interconnect means" '052 patent: claim 6	Plain and ordinary meaning. Not subject to Section 112 ¶ 6.	• '052 patent at Abstract, 1:6–10, 1:33–2:62, 3:10–4:12, 4:43–50, 5:53–6:12, 8:47–58 • Declaration of Dr. Mitchell Thornton • Evidence cited by NST • *Interconnect*, Newton's Telecom Dictionary 380 (18th ed. 2002). • *Interconnect*, Microsoft Computer Dictionary 279 (5th ed. 2002). • *Interconnect*, New Oxford American Dictionary 884 (2001).

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
		• *Interconnect*, The Authoritative Dictionary of IEEE Standards Terms 573 (7th ed. 2000). • *Interconnect*, American Heritage Dictionary of the English Language 912 (4th ed. 2000).

E. '9893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"multicast" '9893 patent: claims 7, 10	"a connection in which the messages are duplicated, sent to each receiving module, executed by each receiving module, but no return messages are allowed"	• '9893 patent at 4:49–5:11, 5:54–6:13, 7:5–53, 11:11–13 • Evidence cited by NST
"narrowcast" '9893 patent: claims 7, 10	"a connection in which the messages are duplicated, sent to each receiving module, but executed by exactly one receiving module"	• '9893 patent at 4:49–5:11, 5:54–6:13, 7:5–53, 11:11–13 • Evidence cited by NST

F. '2893 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"data communication introducing a delay of M*N cycles"	Indefinite	• '2893 patent at 10:40–49. • '2893 patent at 01/12/2011 Office Action (PDF p.p. 171–75).

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
'2893 patent: claim 1		• '2893 patent at 03/23/2011 Applicant Response (PDF p.p. 195–205).

G. '800 Patent

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
"an optimal moment for sending the data" '800 patent: claim 12	Indefinite	• '800 patent at 5:27–35 7:4–6, Fig. 2. • Declaration of Dr. Mitchell Thornton • Evidence cited by NST • *Optimal*, New Oxford American Dictionary 1202 (2001). • *Optimal*, American Heritage Dictionary of the English Language 1235 (4th ed. 2000). • *Optimal*, *Optimal Decision,* Dictionary of Computer Science Engineering and Technology (2001)
"optimal amount of data to be buffered" '800 patent: claim 12	Indefinite	• '800 patent at 3:47–49, 3:60–63, 4:50–54, 4:55–58, 5:27–35, 6:49–7:2, 7:16–19, 7:31-33, Fig. 2. • Declaration of Dr. Mitchell Thornton • Evidence cited by NST • *Optimal*, New Oxford American Dictionary 1202 (2001). • *Optimal*, American Heritage Dictionary of the English Language 1235 (4th ed.

Term or Phrase & Asserted Patent(s) and Claim(s)	Defendants' Proposed Constructions	Evidence
		2000). • *Optimal*, *Optimal Decision,* Dictionary of Computer Science Engineering and Technology (2001)