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

NETSOCKET, INC., Plaintiff, v. CISCO SYSTEMS, INC., Defendant.	**NO. 2:22-CV-00172-JRG**

DEFENDANT'S PATENT RULE 4-2 DISCLOSURE OF PRELIMINARY CLAIM CONSTRUCTIONS AND EXTRINSIC EVIDENCE

Pursuant to the Docket Control Order (Dkt. 79) and Patent Rule 4-2 of the Eastern District of Texas, Defendant Cisco Systems, Inc. ("Defendant") hereby sets forth the following preliminary proposed claim constructions and extrinsic evidence for the terms and elements from the asserted claims of the following patents for construction: U.S. Patent Nos. 7,190,698 ("the '698 patent"); 7,616,601 ("the '601 patent"); 7,606,885 ("the '885 patent"); 7,734,796 ("the '796 patent"); 7,827,284 ("the '284 patent"); 7,720,966 ("the'966 patent"); and 7,885,286 ("the'286 patent") that the parties identified in their P.R. 4-1 disclosures.

Asserted Patent	Asserted Claims
7,190,698	1
7,616,601	1
7,606,885	14, 28
7,734,796	1-7, 9-11, 14-28, 30, 31, 33, 35, 38, 39, 41
7,827,284	1, 14
7,720,966	1, 4-11, 14, 17
7,885,286	1

The proposed constructions set forth in these disclosures are preliminary in nature and are based on Defendant's current knowledge and understanding of the Asserted Patents and related file histories. Defendant's investigation is ongoing.[1] By proposing a construction or failing to propose a construction, Defendant does not admit that construction is required or not required, or that the term is amenable to construction. Accordingly, Defendant reserves the right to revise, supplement, and/or amend the proposed constructions.

Defendant further reserves the right to rely on any intrinsic or extrinsic evidence identified by Plaintiff in support of its proposed constructions, including the testimony and/or declarations of any percipient or expert witness. Defendant additionally reserves the right to rely on the complete prosecution histories of the patents-in-suit or any part thereof to refute a construction or interpretation argued by Plaintiff or to support a construction or interpretation advocated by Defendant with respect to the asserted claims and terms therein with respect to any of the patents-in-suit. Finally, Defendant reserves the right to rely on one patent-in-suit as extrinsic evidence to support a construction regarding a different patent-in-suit.

In support of its proposed constructions, Defendant may rely upon the expert testimony of Dr. Kevin Jeffay, whose testimony would explain the technology of the patents-in-suit, the state-of-the-art as of the time the applications for the patents-in-suit were filed, and/or any priority dates claimed by Plaintiff for the patents-in-suit, the meaning of the claim terms of the patents-in-suit as they would be understood by persons of ordinary skill at the time of the invention, the proper constructions of various claim terms, and/or the level of ordinary skill in the relevant art. Dr.

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[1] Plaintiff has not provided updated infringement contentions pursuant to Paragraph 3(a)(i) of the Discovery Order (Dkt. 33) for all patents-in-suit except the '796 patent. Plaintiff's delay results in Defendant submitting its preliminary constructions without knowledge of Plaintiff's specific infringement theories. Defendant reserves its right to modify its preliminary constructions described herein based on Plaintiff's updated theories.

Jeffay may also offer testimony regarding the indefiniteness of terms, including means-plus-function terms for failure to disclose sufficient corresponding structure. Dr. Jeffay may also offer testimony, if necessary, to respond to Plaintiff's claim construction positions or that of its expert(s).

I. ’698 Patent

Claim Term	Defendant’s Proposed Claim Construction	Extrinsic Evidence
“Method in a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST), wherein the bandwidth broker (BB) is associated to each network domain and the bandwidth broker (BB) is configured to control a hierarchical routing domain,” Asserted claim 1	Preamble is limiting	Plaintiff’s P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner’s Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 39, 102, 111, 166-167, 243, 249, 308, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int’l. Publ’n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May 31, 1999, at 17-26
“domain” Asserted claim 1	Routing domain, which is “a logic[al] part of an IP network and the division is done for administrative	The ’796 Patent (quote at 4:42-45) The ’966 Patent Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, (Cisco Press, 2nd ed.

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
	reasons"	2001) at 26, 111, 308 Schelén Dissertation at 23, 25, 29, 45 NetSocket's infringement contentions for the '698 Patent and documents referenced therein
"source (SRC)" Asserted claim 1	a network device that is sending data	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 102, 249, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May 31, 1999, at 17-26
"destination (DST)" Asserted claim 1	a network device that is receiving data	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 102, 249, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May 31, 1999, at 17-26
"source network (SRC)" Asserted claim 1	routing domain containing the source device	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 102, 111, 166-167, 243, 249, 308, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		(published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May 31, 1999, at 17-26
"destination network (DST)" Asserted claim 1	routing domain containing the destination device	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 102, 111, 166-167, 243, 249, 308, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		31, 1999, at 17-26
"predefined Quality of Service" Asserted claim 1	Specific quality of service parameters	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 291-292 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002) Olov Schelén *et al., Performance of QoS Agents for Provisioning Network Resources*, IEEE Seventh International Workshop on Quality of Service Cat. No. 98EX354, May 31, 1999, at 17-26
"at least one intra-domain broker (1DB)" Asserted claim 1	A bandwidth broker within a hierarchical routing domain controlled by another bandwidth broker	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l.

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002)
"BB_A establishes the different domains involved to reach the destination network (DST)" Asserted claim 1	The bandwidth broker associated with routing domain A determines all domains required to send data from the source device to the destination device	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 11, 39, 102, 111, 166-167, 243, 249, 308, 330 (Cisco Press, 2nd ed. 2001) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, Int'l. Publ'n. No. WO 00/30295 (published May 25, 2000) Providing Admission Control and Network Quality of Service with a Distributed Bandwidth Broker, U.S. Patent. No. 6,487,170 (filed Nov. 18, 1998) (issued Nov. 26, 2002)

II. '601 Patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"A method for providing end-to-end Quality of Service (QoS) within a mobile telecommunication system	Preamble is limiting	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
comprising a Core Network (CN) connected to at least one Radio Access Network (RAN) using Internet Protocol (IP) based transmission" Asserted claim 1		Contentions. Patent Owner's Preliminary Response, *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00606, paper 8 (P.T.A.B. June 28, 2023) Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 111, 166, 243, 129-130, 291-292, 308 (Cisco Press, 2nd ed. 2001)
"Resource Map" Asserted claim 1	a data structure containing information on how much resources (e.g. bandwidth) are available and reserved over time on a perlink basis	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 102, 129-130, 291-292, 249, 330 (Cisco Press, 2nd ed. 2001)
"the step of controlling the IP network resources including the steps of the NRM performing path-sensitive call admission control by using the resource map in the NRM, the NRM checking that resources are available along a path, and the NRM pre-allocating resources in an IP network" Asserted claim 1	indefinite	Disclosure of Asserted Claims and Infringement Contentions.S. Keshav, *An Engineering Approach to Computer Networking*, 60-61, 256, 292-313, 445-492 (1997) Dr. Jeffay may provide testimony explaining that a person of ordinary skill in the art would not have understood what this term is directed to and that the patent fails to explain this term with reasonable certainty. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		of Plaintiff.
"Pre-allocating resources" "pre-allocating resources in an IP network" Asserted claim 1	allocating network resources for a discrete time interval in the future	Plaintiff's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions. Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 39 (Cisco Press, 2nd ed. 2001)

III. '885 Patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"performing path sensitive resource management issues" All asserted claims (14, 28)	Indefinite	S. Keshav, *An Engineering Approach to Computer Networking*, 60-61, 256, 292-313, 445-492 (1997) Dr. Jeffay may provide testimony explaining that a person of ordinary skill in the art would not have understood what this term is directed to and that the patent fails to explain this term with reasonable certainty. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"present call link being initiating" "voice call link being initiated"	Indefinite	Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, 56, 209 (Cisco Press, 2nd ed. 2001)

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
All asserted claims (14, 28)		Dr. Jeffay may provide testimony explaining that a person of ordinary skill in the art would not have understood what this term is directed to and that the patent fails to explain this term with reasonable certainty. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"a standalone first server" and "the first server" and "a standalone server" All asserted claims (14, 28)	"a server separate from the gatekeeper Gk"	
"resource manager" All asserted claims (14, 28)	"A computer program deployed on a server separate from a gatekeeper Gk connected to an IP telephony network and separately connected, via the IP telephony network, to the gatekeeper Gk."	
"resource information" All asserted claims (14, 28)	"Information regarding available bandwidth."	
"each resource" All asserted claims (14, 28)	Indefinite Alternatively, "each link."	Dr. Jeffay may provide testimony explaining that a person of ordinary skill in the art would not have understood what this term is directed to and that the patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		fails to explain this term with reasonable certainty. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"creating a resource map by means of combining said routing information and resource information" All asserted claims (14, 28)	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "creating a resource map" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"admission control" All asserted claims (14, 28)	"call admission control"	S. Keshav, *An Engineering Approach to Computer Networking*, 60-61, 256, 292-313, 445-492 (1997)
"processing means in topology aware resource manager (RM) within an IP telephony system (400) system, to control an	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term.

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
execution of the steps of claim 14" Asserted claim 28	**Function:** "the steps of claim 14" **Structure:** none (indefinite)	Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"voice call set-up requests received from the gatekeeper" All asserted claims (14, 28)	"Voice over IP call requests sent by the Gatekeeper to request that a voice over IP call be admitted to the IP telephony network"	
A computer program product stored on computer usable medium, comprising readable program for causing a processing means in topology aware resource manager (RM) within an IP telephony system (400) system, to control an execution of the steps of claim 14. Asserted Claim 28	Indefinite	Dr. Jeffay may provide testimony explaining that this claim is structured as a mixed claim and is indefinite. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.

IV. ’796 Patent

Claim Term	Defendant’s Proposed Claim Construction	Extrinsic Evidence
“domain” All asserted claims (1–42)	Routing domain, which is “a logic[al] part of an IP network and the division is done for administrative reasons”	Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, (Cisco Press, 2nd ed. 2001) at 26, 111, 308 Schelén Dissertation at 23, 25, 29, 45The ’966 Patent The ’698 Patent NetSocket’s infringement contentions for the ’796 Patent and documents referenced therein
“terminal” Asserted Claims 1–14, 25–42 “endpoint” Asserted Claims 15–24	Plain and ordinary meaning which is an end-user device such as a PC, IP telephone, mobile phone, or laptop	Cisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, (Cisco Press, 2nd ed. 2001) at 129, 130, 132, 351, 353
“Network Resource Manager” or “NRM” All asserted claims (1–42)	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** “the steps of claim 1, 15, or 25” **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art’s understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff’s claim construction position

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"predetermined QoS" Asserted Claims 1–14, 25–42	Indefinite	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.
"means for announcing a domain property label" Asserted Claims 1–24 "announcing a domain property label … characterizing [said/a] destination domain" Asserted Claims 25–42	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "announcing a domain property label" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		Defendant's position should be adopted over that of Plaintiff.
"means for performing an appropriate action and for transmitting the IP packets with said QoS between the source terminal and the destination terminal according to the announced domain property label" Asserted Claims 1–14 "means for performing an appropriate action, to provide a QoS end-to-end, between a first endpoint and a second endpoint, according to the announced domain property label" Asserted Claims 15–24 "performing one of several actions for transmitting said IP packets with said QoS between the source terminal and the destination terminal according to the announced domain property label, at least one of the several actions causing the first NRM to perform additional communications with the second NRM to reserve resources" Asserted Claims 25–42	Indefinite This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** 1) "performing an appropriate action and for transmitting the IP packets with said QoS between the source terminal and the destination terminal according to the announced domain property label" 2) "performing an appropriate action, to provide a QoS end-to-end, between a first endpoint and a second endpoint, according to the announced domain property label" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's. Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		Plaintiff.
"means for using an NRM path vector" Asserted Claims 1–24 "NRM path vector" Asserted Claims 25–42	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "using an NRM path vector" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"end-terminal" Asserted Claim 25	Indefinite: Lacks antecedent basis	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"means for using the NRM path vector to identify other NRMs along a path from the source terminal to the destination terminal" Asserted Claims 3, 27	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "using the NRM path vector to identify other NRMs along a path from the source terminal to the destination terminal" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for using NRM path vector to detect denials and/or failures along a path" Asserted Claims 4, 16, 28	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "using NRM path vector to detect denials and/or failures along a path" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for adding the second NRM's identity to the NRM path vector" Asserted Claims 5, 17	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "adding the second NRM's identity to the NRM path vector" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for sending a message to an adjacent NRM, said message comprising the NRM path vector" Asserted Claims 6, 18, 30	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "sending a message to an adjacent NRM, said message comprising the NRM path vector"	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
	Structure: none (indefinite)	by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for aggregating said resource request with other requests from another domain" Asserted Claims 7, 19, 31	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "aggregating said resource request with other requests from another domain" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for performing an	This is a means-plus-	Dr. Jeffay may provide

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
appropriate action comprising a device in the destination domain that further comprises means for calling an NRM in the destination domain to ensure QoS to the destination terminal" Asserted Claims 9, 20, 33	function term under 35 U.S.C. 112 ¶ 6. **Function:** "performing an appropriate action comprising a device in the destination domain that further comprises means for calling an NRM in the destination domain to ensure QoS to the destination terminal" **Structure:** none (indefinite)	testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for performing an appropriate action comprising a requesting device that further comprises means for calling another NRM, and the other NRM comprising means for extending resource reservations from said requesting device to the destination terminal" Asserted Claims 11, 22, 35	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "performing an appropriate action comprising a requesting device that further comprises means for calling another NRM, and the other NRM comprising means for extending resource reservations from said requesting device to the destination terminal" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for performing an appropriate action comprising the source terminal and further comprising means for transmitting 'Resource ReSerVation Protocol (RSVP) path' messages to the destination terminal and the destination terminal further comprising means for transmitting 'RSVP resv' messages in order to reserve resources within the destination domain" Asserted Claims 14, 38	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "performing an appropriate action comprising the source terminal and further comprising means for transmitting 'Resource ReSerVation Protocol (RSVP) path' messages to the destination terminal and the destination terminal further comprising means for transmitting 'RSVP resv' messages in order to reserve resources within the destination domain" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for having the NRM unit's address identified by the NRM path vector" Asserted Claim 24	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "having the NRM unit's address identified by the NRM path vector" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.

V. '284 Patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"each link" Asserted Claim 1	Indefinite: Lacks antecedent basis	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.
"multiplexing properties of aggregated ADFs on each link" Asserted Claim 1	Indefinite	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.
"dynamically adapting" Asserted Claim 1	Indefinite	Dr. Jeffay may provide testimony explaining that a person of ordinary skill in the art would not have understood what this term is directed to and that the patent fails to explain this term with reasonable certainty. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"A computer program product embodied in a computer readable non-transitory medium, the computer-readable non-transitory medium comprising a readable program for causing a processing means to control an execution of the steps of claim 1." Asserted Claim 14	Indefinite	Dr. Jeffay may provide testimony explaining that this claim is structured as a mixed claim and is indefinite. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"processing means to control an execution of the steps of claim 1."	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "the steps of claim 1"	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
Asserted Claim 14	**Structure:** none (indefinite)	testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.

VI. '966 Patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"group of Network Resource Managers" All asserted claims (1–17)	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "the steps of claim 1" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"network domain" All asserted claims (1–17)	Routing domain, which is "a logic[al] part of an IP network and the division is done for administrative reasons"	The '796 Patent (quote at 4:42-45) The '698 PatentCisco Sys., Inc., Dictionary of Internetworking Terms and Acronyms, (Cisco Press, 2nd ed. 2001) at 26, 111, 308 Schelén Dissertation at 23, 25, 29, 45NetSocket's infringement contentions for the '966 Patent and documents referenced therein
"network level" All asserted claims (1–17)	Indefinite	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.
"means for communicating on a common network level"	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.	Dr. Jeffay may provide testimony explaining that

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
All asserted claims (1–17)	**Function:** "communicating on a common network protocol layer" **Structure:** none (indefinite)	this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"aggregated into a single resource" All asserted claims (1–17)	Indefinite	Dr. Jeffay may provide testimony explaining what a person of ordinary skill would have understood this term to mean in light of the intrinsic and extrinsic evidence. Defendant may also rely on Dr. Jeffay to respond to Plaintiff's claim construction position on this term and alleged support, including as to why Defendant's position should be adopted over that of Plaintiff's.
"controlling resources of said third network level by a third	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.	Dr. Jeffay may provide testimony explaining that this term should be

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
group of NRMs"	**Function:** "controlling resources of said third network level by a third group of NRMs" **Structure:** none (indefinite)	construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.

VII. '286 Patent

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
"means for allowing the Media Quick Start or to use another behavior to start the requested media distribution based on the received feedback information" Asserted claim 1	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "either allowing the Media Quick Start or using another behavior to start the requested media distribution based on the received feedback information" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"another behavior" Asserted claim 1.	"use the feedback information provided by the resource manager to signal to the client that a Media Quick Start unicast stream for the requested multicast distribution is not available due to shortage of available bandwidth in the IP network"	
"Media Quick Start" Asserted Claim 1	"A unicast media distribution is initiated and a multicast distribution are also initiated if there is no existing multicast stream to synchronize with. The unicast distribution is ongoing until the initiated multicast distribution is ready to start or when synchronization with an already existing multicast stream is completed, i.e. when the key frame is received. Thus, the media receiver is first served a unicast stream and the receiver can initiate play out from the unicast stream immediately while waiting for the multicast transmission to be	

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
	able to start if the multicast transmission is not available or while waiting for synchronizing with an already existing multicast transmission. When the multicast transmission is initiated, data is buffered until enough information is available, i.e. at least when a next key frame is received, and then the client switches form reproducing data from the unicast stream to reproducing data from the multicast stream."	
"network resource manager" "resource manager" Asserted claim 1.	"A topology aware entity that provides information regarding available bandwidth within a network to applications and service frameworks within an IP network."	
"feedback information" Asserted claim 1.	"Information regarding available bandwidth."	
"network resource availability" Asserted claim 1.	"Availability of network bandwidth"	
"network resources" Asserted claim 1.	"Bandwidth"	
"resource shortage in the IP network" Asserted claim 1.	"lack of available bandwidth in the IP network."	
"means for receiving a request for a media distribution requiring a multicast distribution from a	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "receiving a request	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
client in said IP network" Asserted claim 1.	for a media distribution requiring a multicast distribution from a client in said IP network" **Structure:** none (indefinite)	function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for requesting network resources from a network resource manager for a Media Quick Start, to start the multicast distribution" Asserted claim 1.	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "requesting bandwidth from a network resource manager for a Media Quick Start, to start the multicast distribution" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this

Claim Term	Defendant's Proposed Claim Construction	Extrinsic Evidence
		term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.
"means for receiving feedback information relating to network resource availability from the network resource manager" Asserted claim 1.	This is a means-plus-function term under 35 U.S.C. 112 ¶ 6. **Function:** "receiving information regarding available bandwidth relating to bandwidth availability from the network resource manager" **Structure:** none (indefinite)	Dr. Jeffay may provide testimony explaining that this term should be construed as a means-plus-function term. Dr. Jeffay may also provide testimony as to a person of ordinary skill in the art's understanding of the claimed functions performed by the claimed means. Dr. Jeffay may also provide testimony regarding the failure of the specification to provide sufficient corresponding structure for the claimed means to perform the recited functions. Dr. Jeffay may also respond to Plaintiff's claim construction position on this term and alleged support, including why Defendant's position should be adopted over that of Plaintiff.

Dated: January 9, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on this day, January 9, 2024, all counsel of record are being served with a copy of this document by e-mail.

/s / Janice L. Ta
Janice L. Ta

NetSocket's Exhibit No. 2006, IPR2023-00606
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