IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Trend Micro Inc., Petitioner,

v.

Kajeet, Inc., Patent Owner.

Case No. IPR2023-00178

U.S. Patent No. 7,899,438

Issue Date: March 1, 2011

Title: FEATURE MANAGEMENT OF A COMMUNICATION DEVICE

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,899,438

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

				Page			
I.	MANDATORY NOTICES UNDER 37 C.F.R. § 42.8						
	A.	Real Party-in-Interest Under 37 C.F.R. § 42.8(b)(1)1					
	B.	Related Matters Under 37 C.F.R. § 42.8(b)(2)					
	C.	Lead and Backup Counsel Under 37 C.F.R. § 42.8(b)(3)3					
	D.	Serv	Service Information Under 37 C.F.R. § 42.8(b)(4)3				
	E.	Pow	ver of Attorney Under 37 C.F.R. § 42.10(b)	3			
II.	FEE	PAY	MENT UNDER 37 C.F.R. § 42.15(a)	4			
III.	REQUIREMENTS UNDER 37 C.F.R. § 42.104						
	A.	Grounds for Standing Under 37 C.F.R. § 42.104(a)					
	В.	Identification of Challenge and Statement of Relief Requested Under 37 C.F.R. § 42.104(b)4					
	C.	Con	Considerations Under 35 U.S.C. § 325(d)				
IV.	OVI	OVERVIEW OF THE '438 PATENT5					
	A.	Level of Ordinary Skill in the Art5					
	B.	The '438 Patent		6			
		1.	The '438 Patent's Earliest Claimed Effective Filing Date is June 28, 2007	6			
		2.	The Background Admits that "Partial Solutions" Existed in the Art	6			
		3.	The Alleged Invention is Directed to Access Control	7			
		4.	The Prosecution History of the '438 Patent	10			
V.	CLA	AIM CONSTRUCTION11					
VI.	PRIOR ART RELIED UPON IN THIS PETITION11						
		1.	Choudhary	11			
		2.	U.S. Patent No. 6,578,076 (Putzolu)	14			

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

		3.	U.S. Patent Application Pub. No. 2005/0021978 (Bhat)	17
VII.	THE	CHAL	LENGED CLAIMS ARE UNPATENTABLE	19
	A.	Ground 1: Choudhary Renders Obvious Claims 1-3, 6, 10, 27, and 33		19
		1.	Claim 1	19
		2.	Claim 2	30
		3.	Claim 3	32
		4.	Claim 6	33
		5.	Claim 10	34
		6.	Claim 27	35
		7.	Claim 33	39
		8.	Choudhary is Analogous Art to the '438 Patent	43
	B.	Grou	nd 2: Putzolu Renders Obvious Claims 1, 27, and 33	45
		1.	Claim 1	45
		2.	Claim 27	54
		3.	Claim 33	58
		4.	Putzolu is Analogous Art to the '438 Patent	62
	C.	Secon	ndary Considerations	63
VIII.	DISCRETIONARY DENIAL UNDER THE <i>FINTIV</i> FACTORS IS NOT APPROPRIATE			63
	A.	Whether Evidence Exists that a Stay May be Granted if a Proceeding is Instituted		
	B.		mity of the Court's Trial Date to the Board's cted Statutory Deadline for a Final Written Decision	65
	C.		tments in the Parallel Proceeding by the Court and arties	66
	D.	Overlap Between Issues Raised in the Petition and in the Parallel Proceeding		
	Е.		her the Petitioner and the Defendant in the Parallel reding are the Same Party	67

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

	F. Other Circumstances that Impact the Board's Exercise of		
		Discretion, Including the Merits	67
IX.	THE	E PETITION SHOULD NOT BE DISCRETIONARILY	
	DEN	NIED UNDER 325(d)	68
X.	CON	NCLUSION	68

TABLE OF AUTHORITIES

	Page(s)
Cases	
Advanced Bionics, LLC v. MED-EL Elektromedizinische GmbH, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020)	68
<i>Airbus S.A.S. v. Firepass Corp.</i> , 941 F.3d 1374 (Fed. Cir. 2019)	44, 62
Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020)	63, 64, 67, 68
Innovation Toys, LLC v. MGA Entm't, Inc., 637 F.3d 1314 (Fed. Cir. 2011)	43, 62
Kajeet, Inc. v. Trend Micro Inc., Case No. 6:21-cv-00389-ADA (W.D. Tex.)	passim
NortonLifeLock Inc. v. Kajeet, Inc., IPR2022-00001 (PTAB Oct. 1, 2021)	64, 65
NortonLifeLock Inc. v. Kajeet, Inc., IPR2022-00001, Paper 20 (PTAB Apr. 21, 2022)	2, 6, 23
In re Paulsen, 30 F.3d 1475 (Fed. Cir. 1994)	7
Sand Revolution II, LLC, v. Continental Intermodal Group, IPR2019-01393, Paper 24 (PTAB Jun. 16, 2020)	65
Snap, Inc. v. SRK Technology LLC, IPR2020-00820, Paper 15 (PTAB Oct. 21, 2020)	65
Thorner v. Sony Comput. Entm't Am. LLC, 669 F.3d 1362 (Fed. Cir. 2012)	11
Statutes	
35 U.S.C. § 102	6

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

35 U.S.C. § 102(b)	11, 14, 17
35 U.S.C. § 103	4, 6
35 U.S.C. § 282(b)	11
35 U.S.C. § 311-319	1
35 U.S.C. § 314(a)	1
35 U.S.C. § 315(b)	65
35 U.S.C. § 315(e)(2)	66
35 U.S.C. § 325(d)	5, 68
Other Authorities	
37 C.F.R. § 42.8	1
37 C.F.R. § 42.8(b)(1)	1
37 C.F.R. § 42.8(b)(2)	1
37 C.F.R. § 42.8(b)(3)	3
37 C.F.R. § 42.8(b)(4)	3
37 C.F.R. § 42.10	1
37 C.F.R. § 42.10(b)	3
37 C.F.R. § 42.15(a)	4
37 C.F.R. § 42.22	4
37 C.F.R. § 42.100(b)	11
37 C.F.R. §42.103(a)	4
37 C.F.R. § 42.104	4
37 C.F.R. § 42.104(a)	4
37 C F R 8 42 104(b)	4

TABLE OF ABBREVIATIONS AND CONVENTIONS

Abbreviation	Meaning
the '438 patent	Ex. 1001: U.S. Patent No. 7,899,438
Board	Patent Trial and Appeal Board
Bhat	Ex. 1008: U.S. Patent Application Pub. No. 2005/0021978
Choudhary	Ex. 1006: A. Choudhary, <i>Policy-Based Network Management</i> , BELL LABS TECH. J., No. 9(1), 19-29 (2004)
IPR	inter partes review
Kajeet	Kajeet, Inc.
Trend Micro	Trend Micro Inc.
POSITA	person of ordinary skill in the art
Putzolu	Ex. 1007: U.S. Patent No. 6,578,076
xx:yy-zz	column xx, lines yy to zz

PETITIONER'S EXHIBIT LIST

Exhibit No.	Brief Description
1001	U.S. Patent No. 7,899,438
1002	File History Items of U.S. Patent No. 7,899,438
1003	Declaration of Vijay K. Madisetti, Ph.D.
1004	Curriculum vitae of Vijay K. Madisetti, Ph.D.
1005	Declaration of Sylvia Hall-Ellis, Ph.D.
1006	A. Choudhary, <i>Policy-Based Network Management</i> , Bell Labs Tech. J., No. 9(1), 19-29 (2004)
1007	U.S. Patent No. 6,578,076 ("Putzolu")
1008	U.S. Patent Application Pub. No. 2005/0021978 ("Bhat")
1009	Amended Complaint, <i>Kajeet, Inc. v. Trend Micro Inc.</i> , 6:21-cv-00389-ADA (W.D. Tex. May 16, 2022)
1010	Order Granting Stay, <i>Kajeet, Inc. v. Trend Micro Inc.</i> , 6:21-cv-00389-ADA, Dkt. 61 (W.D. Tex. Jun. 7, 2022)
1011	Docket Report, <i>Kajeet, Inc. v. Trend Micro Inc.</i> , 6:21-cv-00389-ADA (W.D. Tex.)

Petitioner Trend Micro Inc. ("Petitioner" or "Trend Micro") seeks *Inter Partes* review ("IPR") of claims 1-3, 6, 10, 27, and 33 (collectively, "the Challenged Claims") of U.S. Patent No. 7,899,438 ("the '438 patent") (Ex. 1001) pursuant to 35 U.S.C. §§ 311-319 and 37 C.F.R. § 42.10 *et seq*. Petitioner's request is supported by the Expert Declaration of Vijay K. Madisetti, Ph.D. ("Madisetti") (Ex. 1003), and other exhibits submitted.

The Board should institute review, because there is at least a reasonable likelihood that Petitioner will prevail on at least one challenged claim. 35 U.S.C. § 314(a). This Petition cites prior art and raises arguments that have not previously been considered by the Office.

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-in-Interest Under 37 C.F.R. § 42.8(b)(1)

Trend Micro Inc. is the real party-in-interest to this IPR Petition.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

Kajeet, Inc. ("Kajeet" or "Patent Owner") represented that it will assert the '438 patent against Petitioner in the Western District of Texas. *See Kajeet, Inc. v. Trend Micro Inc.*, Case No. 6:21-cv-00389-ADA (W.D. Tex.) ("Litigation"). (*See* Ex. 1009). While Patent Owner filed the complaint on April 21, 2021, alleging infringement of only U.S. Patent No. 8,667,559, Patent Owner has filed a motion to amend the complaint to assert the '438 patent against Trend. (*See id.*)

Patent Owner has also asserted the '438 patent against a number of other parties, including Asavie Technologies Ltd. (Case No. 6:20-CV-705-ADA) in the Western District of Texas; Cujo LLC (Case No. 2:20-CV-253-JAK-PLA) in the Central District of California; Gryphon Online Safety, Inc. (Case No. 1:19-CV-2370-MN) and Roqos, Inc. (Case No. 1:19-CV-2371-MN) in the District of Delaware.

Petitioner further notes that a related patent, U.S. Patent No. 8,667,559, is subject to a pending *Inter Partes* review proceeding, which was filed October 1, 2021, and instituted on April 21, 2022. (*See NortonLifeLock Inc. v. Kajeet, Inc.*, IPR2022-00001, Paper 20 (PTAB Apr. 21, 2022)).

This identification of related matters is based on information currently known to Petitioner based on a reasonably diligent search of publicly available materials. Patent Owner may be aware of other proceedings—including proceedings before the Board or otherwise before the Patent Office—relating to patent claims encompassing similar subject matter or raising similar issues to those involved here.

C. Lead and Backup Counsel Under 37 C.F.R. § 42.8(b)(3)

Petitioner provides the following designations of counsel:

Lead Counsel for Petitioner	Backup Counsel for Petitioner
Charanjit Brahma (Reg. No. 46,574)	Manish K. Mehta (Reg. No. 64,570)
BENESCH FRIEDLANDER COPLAN AND	Samuel J. Ruggio (Reg. No. 74,543)
Aronoff LLP	Cristina Almendarez (pro hac vice
100 Pine Street, Suite 3100	application to be filed)
San Francisco, CA 94111	BENESCH FRIEDLANDER COPLAN AND
Email: cbrahma@beneschlaw.com	Aronoff LLP
Tel: (628) 600-2241	71 S. Wacker Dr., Suite 1600
Fax: (628) 221-5828	Chicago, IL 60606
	Email: mmehta@beneschlaw.com
	Email: sruggio@beneschlaw.com
	Email: calmendarez@beneschlaw.com
	Tel: (312) 212-4953
	Fax: (312) 767-9192

D. Service Information Under 37 C.F.R. § 42.8(b)(4)

This Petition is being served by Priority Mail Express® to the correspondence address of record for the '438 patent, Baker Hostetler, 2929 Arch Street Cira Centre, 12th Floor, Philadelphia PA 19104-2891. Petitioner consents to electronic service at the addresses provided above for lead and back-up counsel.

E. Power of Attorney Under 37 C.F.R. § 42.10(b)

Filed concurrently herewith in accordance with 37 C.F.R. § 42.10(b).

II. FEE PAYMENT UNDER 37 C.F.R. § 42.15(a)

Under 37 C.F.R. §42.103(a), Petitioner authorizes the Office to charge the fee set forth in 37 C.F.R. §42.15(a) to Deposit Account No. 02-2051, as well as any additional fees that might be due in connection with this Petition.

III. REQUIREMENTS UNDER 37 C.F.R. § 42.104

A. Grounds for Standing Under 37 C.F.R. § 42.104(a)

Petitioner certifies under § 42.104(a) that the '438 patent is available for IPR and that Petitioner is not barred or estopped from requesting IPR on the identified grounds.

B. Identification of Challenge and Statement of Relief Requested Under 37 C.F.R. § 42.104(b)

Under 37 C.F.R. §§ 42.104(b) and 42.22, Petitioner requests that the Board institute this IPR on claims 1-3, 6, 10, 27, and 33 of the '438 patent based on the following grounds:

Ground	Claims	Basis for Rejection
		Obvious pursuant to 35 U.S.C. § 103
1	1-3, 6, 10, 27, and 33	by Choudhary (Ex. 1006) and the
		knowledge of an ordinary artisan
	1, 27, and 33	Obvious pursuant to 35 U.S.C. § 103
2		by Putzolu (Ex. 1007) and the
		knowledge of an ordinary artisan

C. Considerations Under 35 U.S.C. § 325(d)

"[T]he Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). The prior art references relied upon in this Petition were neither relied upon nor cited during the prosecution of the '438 patent. Therefore, this Petition does not rely on prior art or arguments presented to, and considered by, the Office during the original prosecution of the '438 patent.

IV. OVERVIEW OF THE '438 PATENT

A. Level of Ordinary Skill in the Art

Prior to and at the time of the alleged invention of the '438 patent, *i.e.*, June 28, 2007, a person of ordinary skill in the art ("POSITA") would typically be a person with at least a bachelor's degree in computer science or a similar degree such as computer engineering, with at least two years of experience in the development of computer software systems. (*See* Ex. 1003 at ¶¶ 23-25). A person could also have qualified as a POSITA with some combination of (1) more formal education (such as a Master of Science degree) and less technical experience or (2) less formal education and more technical or professional experience in the fields listed above. This level of skill in the art is reflected by the references cited in this Petition, the state of the art, and the opinions of Vijay K. Madisetti, Ph.D. as described in his declaration. (*See* Ex. 1003 at ¶¶ 23-25).

This level of skill was credited and adopted by the Board in its Decision to Institute *Inter Partes* Review of the related '559 Patent. (*See NortonLifeLock Inc.* v. Kajeet, Inc., IPR2022-00001, Paper 20 at 21 (PTAB Apr. 21, 2022) ("we adopt Petitioner's proposal as reasonable and consistent with the prior art.")).

B. The '438 Patent

The '438 patent is directed to real-time management of user activity on a communication device (*e.g.*, a mobile phone or a computer) via the establishment and enforcement of policies associated with features or functions that may be performed with the device. (Ex. 1001 at 1:12-27).

1. The '438 Patent's Earliest Claimed Effective Filing Date is June 28, 2007

The '438 patent is a continuation-in-part of Application No. 11/824,336, filed on June 28, 2007. (Ex. 1001 at cover). Solely for purposes of this proceeding, Petitioner assumes, but does not concede, an effective filing date of June 28, 2007, for the Challenged Claims of the '438 patent.¹

2. The Background Admits that "Partial Solutions" Existed in the Art

The Background acknowledges that there were partial solutions to the well-known problem of management of a computing device, such as a cell phone. For example, the patent describes the well-known problem of postpaid mobile phones

¹ Pre-AIA 35 U.S.C. §§ 102 and 103 apply to the '438 patent.

being financially detrimental to their owners (e.g., parents or administrators), ostensibly because they did not provide a measure for stopping the "user from running up a huge cell phone bill." (Ex. 1001 at 1:43-52).

The '438 patent acknowledges that there were systems to allow for "some measure of parental or administrative control over an account" for a user of a mobile phone. (Id. at 3:25-37). The patent cites to the prior art "TelcordiaTM Converged Real-Time Charging system [which] allows users to place limited real-time controls over prepaid and postpaid accounts" that would place plan restrictions over a user account. (Id. at 3:26-29). Such restrictions included placing limitations on a child's account such as on the type of content ("premium data") that a child could download by "limit[ing] that child's spending within a set of parameters." (Id. at 3:30-32). Such known solutions acknowledged by the '438 patent inform the knowledge of a person of ordinary skill in the art at the time of the alleged invention. See, e.g., In re Paulsen, 30 F.3d 1475, 1480 (Fed. Cir. 1994) ("a prior art reference must be considered together with the knowledge of one of ordinary skill in the pertinent art.") (internal citations and quotations omitted).

3. The Alleged Invention is Directed to Access Control

The scope of the Challenged Claims covers generic techniques for managing functions according to policies of a computing device, *i.e.*, access control, utilizing previously known policy-based management systems.

As explained by the patent, "[t]he present invention is directed to the real-time management of a device, and more particularly to the establishment and enforcement of policies or rules associated with the feature or functions that may be performed with the device." (Ex. 1001 at 1:12-15, 3:56-62). Such features or functions include making and receiving calls, exchanging data, and accessing websites. (*Id.* at Abstract). An administrator, "such as a parent, guardian, financier, employer, supervisor, or responsible party" is responsible for the management of the device. (*Id.* at 3:58-60).

As shown in Figure 2 below, the '438 patent describes a simple architecture employing a "policy decision point" (PDP) and a "policy enforcement point" (PEP). (*Id.* at 7:64-66, 8:25-27). In operation, a request that originates from the mobile station 10 will be routed to the PEP 28, which will work in connection with the PDP 29 to accept or reject the request. (*Id.* at 8:15-19, 8:25-27).

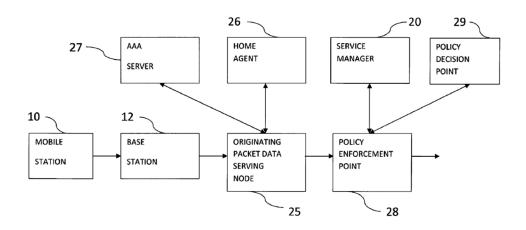


FIG. 2

(Id. at Fig. 2).

The PEP 28 is described as "a logical element that can be physically housed in another packet data serving node or a gateway device, depending on the service request." (*Id.* at 8:20-22). "The PEP 28 is responsible for enforcing a decision by the service manager 20 and policy decision point 29 to accept or reject the service request." (*Id.* at 8:25-27).

The PDP 29 is "a logical element that can be physically housed in the service manager 20 or in another server accessible to either the service manager 20 or the PEP 28." (*Id.* at 8:33-35). The PDP 29 "maintains or stores a list of policies that have been established to control the features and functions of the mobile station 10 and decides, based on those policies, to either accept or reject the service request." (*Id.* at 8:35-39).

In operation, the PEP 28 sends the request from mobile station 10 to the PDP 29. (*Id.* at 8:25-27; *see also id.* at 15:64-66, 17:41-43). The PDP 29 decides "to either accept or reject the service request" based on the policies stored at the PDP. (*Id.* at 8:35-39). The PEP 28 receives a decision from the PDP 29 granting or denying the request. (*Id.* at 15:64-66; *see also id.* at 8:25-33). The PEP 28 then enforces the decision made by the PDP 29, which based the decision on the policies stored at the PDP 29. (*Id.* at 15:56-66; *see also id.* at 8:25-39).

4. The Prosecution History of the '438 Patent

On March 27, 2008, Kajeet submitted a Preliminary Amendment, amending the original claims. (*See* Ex. 1002). Specifically, Kajeet amended claim 1's recitation of "the device" to read "the communication device." (*Id.* at 3). Kajeet further added the limitation specifying that "the list of policies include[es] a policy for managing content that can be sent, received, or used by the communication device." (*Id.*). Lastly, Kajeet added new claims 2-49.

On September 2, 2010, the Examiner issued a Non-Final Rejection and rejected the pending claims for non-statutory double patenting and non-statutory obviousness-type double patenting, over co-pending Application Nos. 11/824,336, and 12/072,240. (*See id.* at 24). In response, Kajeet stated that "Applicants have filed a terminal disclaimer of commonly owned U.S. Patent Application No. 11/824,336 and a terminal disclaimer of commonly owned U.S. Patent Application

No. 12/027,240." (*Id.* at 27). The Examiner accepted the terminal disclaimer and subsequently allowed the claims on January 6, 2011, but did not provide any reasons for allowance. (*Id.* at 32-35).

V. CLAIM CONSTRUCTION

"In an inter partes review proceeding, a claim of a patent . . . shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b).

Here, all of the claim terms should be given their plain and ordinary meaning. No term is re-defined in the patent or prosecution history, and each term would have been readily understood by a POSITA in the context of the claims and the specification. *See Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012); (Ex. 1003 at ¶ 72).

VI. PRIOR ART RELIED UPON IN THIS PETITION

1. Choudhary

Choudhary, titled "Policy-Based Network Management," was published on May 11, 2004, in Bell Labs Technical Journal (Vol. 9(1), pp. 19-29). (Ex. 1006). Choudhary qualifies as prior art at least under pre-AIA 35 U.S.C. § 102(b) because

it is a printed publication that published on May 11, 2004, which is more than one year prior to the earliest effective filing date of the '438 patent of June 28, 2007. As explained in Dr. Hall-Ellis's declaration, Choudhary was "received, cataloged, and indexed at the Library of Congress and made part of the OCLC bibliographic database," and thus Choudhary "was published and accessible to the public on or shortly after July 19, 2004." (Ex. 1005, Hall-Ellis Declaration at ¶ 48).

Choudhary disclosed policy-based systems and methods for the management of devices and access control. Choudhary "analyze[d] industry practices, examine[d] applicable standards, and explore[d] some advantages that a policy-based system can offer in such areas as network management, quality of service (QoS), and network security." (Ex. 1006 at Abstract). Choudhary recognized that "[a] policy-based approach to management can also allow the separation of the rules that govern the behavior of a system from the functionality of the system." (*Id.* at 19). To that end, Choudhary disclosed that various network elements, including policy decision points and policy enforcement points, can be used for device management.

Choudhary explained that "[t]he policy decision point (PDP) is the module where the policy expertise resides" and that "the PDP uses a policy repository that contains the parameters and data structures that the PDP needs to evaluate the policy rules to make policy-based management decisions." (*Id.* at 20). Choudhary further

disclosed that "[e]ach managed object supports a policy agent known as a policy enforcement point (PEP)" and that "[t]he PEP communicates with the PDP using a standard protocol called common open policy service (COPS)." (*Id.* at 20-21).

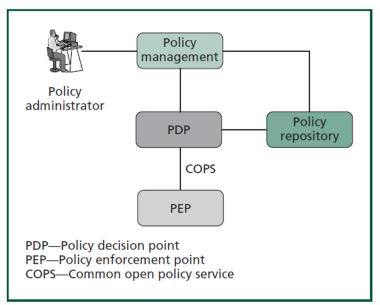


Figure 1.
Policy reference architecture.

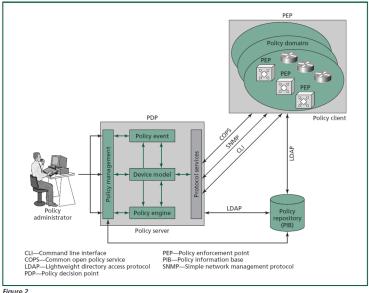


Figure 2.
Policy management in the Lucent Softswitch.

(Ex. 1006 at Figs. 1 & 2). Choudhary further taught that "[t]he PDP makes decisions based on the policies it retrieves from a policy repository and perhaps other locations" and that the PDP "contains the policy events that can be used to trigger information flow to and from the PEP." (*Id.* at 22). Moreover, Choudhary disclosed that "[t]he PEP enforces the PDP decisions and communicates the local events to the PDP" where "[t]he PEP applies actions according to PDP decisions based on relevant policies and current network conditions." (*Id.* at 22).

2. U.S. Patent No. 6,578,076 (Putzolu)

Putzolu, U.S. Patent No. 6,578,076, titled "Policy-Based Network Management System Using Dynamic Policy Generation," was filed on October 18, 1999, and issued on June 10, 2003. (*See* Ex. 1007). Putzolu qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(b) because it published on June 10, 2003, which is more than one year prior to the earliest effective filing date of the '438 patent of June 28, 2007.

Putzolu is directed to managing access for communication devices, such as network devices, using a policy-based system. (Ex. 1007 at 1:6-8). Putzolu observed that a variety of "[n]etwork devices, such as routers and switches, act as policy clients" which rely on the "policy server for policy-based admission control." (*Id.* at 2:30-34, 2:46-48). Putzolu described a system in which a policy server communicates with a plurality of policy clients, in which each policy client serves

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

as "a policy enforcement point for policy-based control over the use of network resources," as illustrated below:

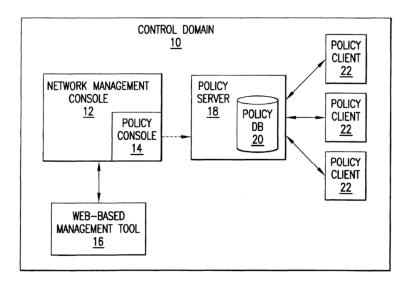


FIG.1

(*Id.* at 3:18-21, Fig. 1).

In this example, the policy client 22 receives a request to use a network resource and applies "policies to determine whether or not to admit such a request." (*Id.* at 3:21-24). The policy client 22 "outsource[s]" this decision making to a policy server 18 via communication of the request to the policy server 18. (*Id.* at 3:24-28). The policy server makes its decision based on policies stored at the policy server. (*Id.* at 3:34-41). The "[p]olicy server 18 determines whether to allow the access, and communicates the decision to policy client 22." (*Id.* at 3:38-39). The policy client 22 enforces the decision based on the response that is received from the policy server 18. (*Id.* at 3:26-28). Such decisions can include, for example, allowing a user

to use a specified amount of bandwidth or allowing "access to a network resource" such as "a corporate database," which is a remote computing device. (*Id.* at 4:32-41). Putzolu further discloses other types of exemplary requests, including, for example, a request to join an Internet multicast group. (*Id.* at 2:37, 2:48-50).

As shown in Figure 1 above, and as explained in the specification, "[a]s is generally known in the art, policy server 18 comprises four major components, as shown in FIG. 2. Policy client communication module 40 is responsible for handling communications with the various policy clients 22 in communication with policy server 18." (Id. at 3:49-53).² Putzolu thus taught that the policy server 18 (and policy database 20) can be located physically separate from the policy client 22 by incorporating a communication module 40 that can communicate between the policy server 18 and policy client 22. (Id. at Figs. 1 and 2, 3:18-19, 3:38-40). These teachings further reinforce that Putzolu disclosed the distributed architecture that the '438 patent claims. (Id. at 3:18-28).

It was also already recognized that systems like the ones described in Putzolu provided advantages such as reduced processing times. For example, the policy client of Putzolu was known to "sort previously-accepted requests against new requests and make a local decision (*i.e.*, without further intervention by policy

² Italics are emphasis added unless otherwise indicated.

server)." (*Id.* at 5:22-26). This prior art policy server had the capability to update the response stored at the policy client by "send[ing] unsolicited messages to policy client" to "force a change to a previously-approved state." (*Id.* at 5:11-15).

3. U.S. Patent Application Pub. No. 2005/0021978 (Bhat)

Bhat, U.S. Publication No. 2005/0021978, titled "Remote Interface for Policy Decisions Governing Access Control," was filed on June 26, 2003, and published on January 27, 2005. (*See* Ex. 1008). Bhat qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(b) because its January 27, 2005, publication date is more than one year prior to the earliest effective filing date of the '438 patent of June 28, 2007.

Bhat described methods and systems for "controlling access to resources" over a network. (*Id.* at Abstract). To that end, Bhat taught that "[w]hen a resource is subject to an access control policy, an initial request by a user for access to the resource is evaluated by a policy server, which can also be referred to as a policy decision point, a policy engine or policy evaluator." (*Id.* at [0041]). According to Bhat, the "policy engine returns a 'policy decision" that is "used to allow access to a resource, and to define the actions that can be performed on the resource or using the resource after access is gained." (*Id.*). Bhat further taught "policy server returns a policy decision to the Web server, which can also be referred to as a policy enforcement point (PEP)." (*Id.* at [0010]).

One embodiment of Bhat is described in Figures 3 and 5:

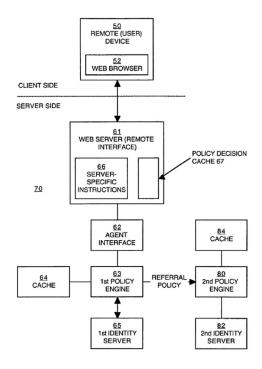
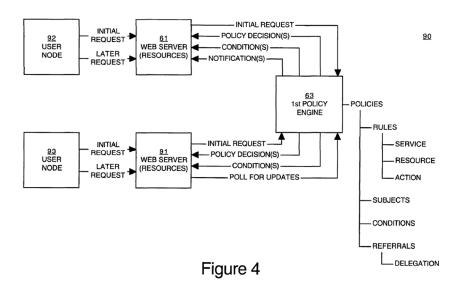


Figure 3



Bhat further taught its methods and systems apply broadly to resources: "[a] resource (e.g., a service or application) can have more than one policy associated with it. Examples in which there can be multiple policies for a resource would

typically exist in an Internet Service Provider (ISP) or Application Service Provider (ASP) environment." (*Id.* at [0030]). According to Bhat, "[a] resource is an object defined by the service type and identifiable by a unique name," including "MailServer1," "a Uniform Resource Identifier (URI) or a Universe Resource Locator (URL)," or "a Web site such as http://abcweb.abc.com." (*Id.* at [0037], [0063]).

VII. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Ground 1: Choudhary Renders Obvious Claims 1-3, 6, 10, 27, and 33

1. Claim 1

a. Claim 1 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

To the extent the preamble is considered limiting, Choudhary disclosed these elements. Choudhary described "policy-based network management" for systems and methods in real-time that "allow the separation of the rules that govern the behavior of a system from the functionality provided by the system." (Ex. 1006 at 19). Choudhary recognized that "the current state of network management is essentially the management of individual network elements, so the simple cases of policy-based network management merely seek to configure the individual devices" and that "the real value of the policy-based approach to network management is to

achieve business objectives by managing services that require the network as a whole to have a desired overall behavior." (*Id.* at 24).

Choudhary recognized that "[o]ne of the first industry products in which the policy-based management approach and a standard architecture were implemented was the policy-based IP network monitoring system from Lucent Technologies," which was "a good starting point for a more general policy management solution, deploying policies that are dynamic and enable real-time network management decisions." (Ex. 1006 at 24).

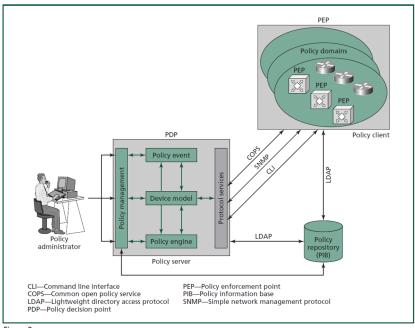


Figure 2.
Policy management in the Lucent Softswitch.

To that end, Choudhary disclosed that "[e]ach managed object supports a policy agent known as a policy enforcement point (PEP)" and that the "PEP is designed and implemented for each managed object that the policy-based system is

supposed to manage." (Ex. 1006 at 20-21, Figs. 1 and 2). Choudhary further taught "managed objects" can include, but are not limited to, "a softswitch or one of its subsystems such as call control, call detail records, and *low-level communications*." (*Id.* at 21) (emphasis added). Choudhary also taught that "[t]he managed object does not have to be a physical entity such as a switch or a router," but can be "[s]oftware systems, subsystems, applications, and other entities." (*Id.*). As disclosed by Choudhary, "[t]he PEP is a mechanism to abstract the managed object's operations and management characteristics using a general and preferably standard data model." (*Id.* at 21).

Choudhary further disclosed another element, the "policy decision point (PDP)," which "is the module where the policy expertise resides." (*Id.* at 20). According to Choudhary, "[t]he PDP uses a policy repository that contains the parameters and data structures that the PDP needs to evaluate the policy rules to make policy-based management decisions." (*Id.*) Moreover, Choudhary taught "[t]he PEP communicates with the PDP using a standard protocol." (*Id.*)

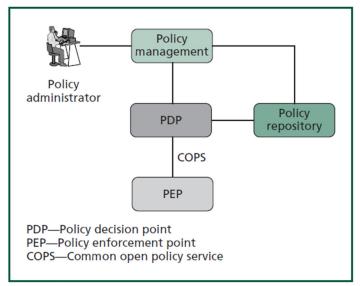
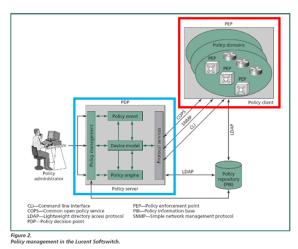
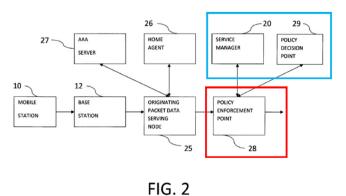


Figure 1. Policy reference architecture.

The policy clients (*i.e.*, PEP) of Choudhary (outlined in red in FIG. 2 below) are implemented on communication devices on a communication network that perform the same function as the '438 patent's "policy enforcement points" (outlined in red in FIG. 2 below). (*See* Ex. 1001 at 8:25-27).



(Ex. 1006 (Choudhary) at Fig. 2) (Annotated)



(Ex. 1001 ('438 Patent) at Fig. 2)

(Annotated)

Accordingly, a POSITA would have appreciated that Choudhary disclosed systems for controlling the communication device, *e.g.*, through use of policy enforcement points and policy decision points, that is used by a user and in real-time over a communication network. (Ex. 1003 at ¶¶ 77-83; Ex. 1006 at 19 ("Examples of a policy action include rerouting traffic, switching on a backup system, suspending a user account, denying service to all calls except those related to an emergency operation, monitoring a call from and/or to a hot number, and disconnecting service to those clients suspected of causing a DoS attack")).

Indeed, in the related *Inter Partes* review of the related '559 patent, which shares the same specification as the '438 patent, the PTAB's institution decision concluded that "we do not agree that the term 'computing device' should be construed to be limited to user-level devices and to preclude network-level devices." *NortonLifeLock Inc. v. Kajeet, Inc.*, IPR2022-00001, Paper 20 at 23 (PTAB Apr. 21, 2022). In support of that conclusion, the PTAB quoted a portion of the specification which states "[t]his type of device is referenced herein as a communication device, not because the device is used for communication with the control network. Hence, the device could be a PDA, a photocopier ... a network device ... or any type of device that one could imagine that is capable of being remotely controlled by logical rules." Id. (quoting '559 patent at 6:24-34 ('438 patent at 6:2-9)) (emphasis in

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

original). For the same reasons here, to the extent the preamble is limiting, it should not be construed as to exclude network-level devices.

Therefore, for the above reasons, Choudhary renders obvious the preamble of claim 1. (Ex. 1003 at \P 84).

b. Claim 1[a]: a policy decider for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies, the list of policies including a policy for managing content that can be sent, received, or used by the communication device; and

Choudhary disclosed managing features and functions associated with communication devices by way of a "policy decision point (PDP)," which is "the module where the policy expertise resides." (Ex. 1006 at 20). As explained by Choudhary, the "PDP uses a policy repository that contains the parameters and data structures that the PDP needs to evaluate the policy rules to make policy-based management decisions." (*Id.*) Specifically, Choudhary disclosed the "policy repository is often implemented as a directory that can communicate using lightweight directory access protocol (LDAP)." (*Id.*)

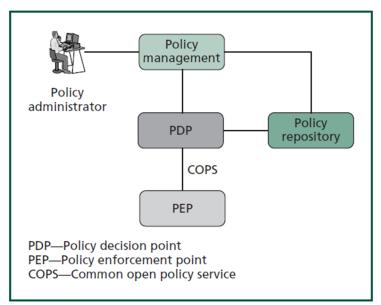


Figure 1.
Policy reference architecture.

In operation, a request can originate from the "managed object," where "[t]he managed object does not have to be a physical entity such as a router or switch," but "[s]oftware systems, subsystems, applications, and other entities can also be managed by the policy-based management system using appropriate PEPs." (*Id.* at 21). As Choudhary explains, the "PEP is a mechanism to abstract the managed object's operations and management characteristics," wherein the "PEP communicates with the PDP using a standard protocol." (*Id.*)

Choudhary taught "[t]he PDP makes decisions based on policies" automatically and that "[t]he policy management module can be implemented as part of the PDP, and a policy administration point is used as a management client." (*Id.* at 22). Choudhary further disclosed that the PDP retrieves policies "from a policy repository and perhaps other locations such as authentication servers." (*Id.*)

Choudhary also taught that, "[a]s an example, one could have a PDP for each domain" and that "[a] PDP would serve its PEPs within the domain that it manages, and at the same time, the PDP could itself act as a managed object for the purpose of the PDP at a higher echelon within the hierarchy of PDPs." (*Id.* at 22).

The PDP in Choudhary contemplates a wide variety of policies that control features and functions of communication devices. For example, Choudhary broadly taught that "a policy can be a paper document, a table for selecting options, a sequence of logical assertions to automate operational decisions, or a tool to articulate business goals and service priorities and facilitate decisions in enforcing business rules and service priorities." (*Id.* at Abstract). Choudhary disclosed that "[a] policy defines a set of management activities that apply to domains, encapsulating any rules and rule combination semantics used to construct that policy." (*Id.* at 22). Choudhary further disclosed that such features and functions of a communication device include content that can be sent or received, *e.g.*, "denying service to all calls except those related to an emergency operation" or "disconnecting service to those clients suspected of causing a DoS attack." (*Id.* at 19).

Based on Choudhary's teachings, a POSITA would have appreciated that Choudhary taught and suggested the use of a policy decider for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request

sent to or from the communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶¶ 89-90). A POSITA would have further appreciated that the list of policies can include a policy for managing content that can be sent, received, or used by the communication device on the communication network, e.g., as business rules or service priorities, or policies that control software systems and applications. (Ex. 1003 at ¶ 90; Ex. 1006 at Abstract, 19, 22; Ex. 1008 at [0037] ("[a] resource is an object defined by the service type and identifiable by a unique name" such as "MailServer1," "a Uniform Resource Identifier (URI) or Uniform Resource Locator (URL)," "a Web site such or as http://abcweb.abc.com.")).

Therefore, for the above reasons, Choudhary renders obvious element 1[a] of claim 1. (Ex. 1003 at ¶ 91).

c. Claim 1[b]: a policy enforcer for communicating the request to the policy decider and enforcing a decision by the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

Choudhary taught that "[e]ach managed object supports a policy agent known as a policy enforcement point (PEP)." (Ex. 1006 at 20). Choudhary explained that a "PEP is designed and implemented for each managed object that the policy-based system is supposed to manage," which would include communication devices,

network elements, software, applications, and the like. (Ex. 1006 at 21). As Choudhary explained, "[t]he managed object does not have to be a physical entity such as a switch or a router. Software systems, subsystems, applications, and other entities can also be managed by the policy-based management system using appropriate PEPs." (*Id.* at 21).

Choudhary taught that "[t]he PEP communicates with the PDP using a standard protocol" and that the "PEP enforces the PDP decisions and communicates the local events to the PDP." (*Id.* at 22). Choudhary further disclosed that "[t]he PEP applies actions according to PDP decisions based on relevant policies and current network conditions," which may be "static, such as source and destination addresses or ports, and/or dynamic, such as current bandwidth availability or date and time." (Ex. 1006 at 22).

Choudhary described "PEPs" as having "two important functions," that include executing "actions on the network element according to the directives received from the PDP" and to "gather information on the events that occur in the network elements." (Ex. 1006 at 25). In combination, the PDP and PEP work by "deploying policies that are dynamic and enable real-time network management decisions." (*Id.* at 24). Choudhary further explained that the "PDP performs the following functions ... receiving policy decision requests from PEPs, determining which policy is relevant, applying the policy, returning the results of the policy

application (possibly with other policy elements such as error information), sending policy elements to the PEP based on policy updates or requests from external entities..." (*Id.* at 22) (emphasis added).

Based on Choudhary's teachings, a POSITA would have appreciated that Choudhary disclosed a policy enforcer for communicating the request to the policy decider and enforcing a decision received from the policy decider as to whether the request has been accepted or denied. (Ex. 1003 at ¶¶ 95-96). A POSITA would have understood that the PEP would have notified the user if the request has been denied and taken one or more actions consistent with the denied request, *e.g.*, "denying service to all calls," or by taking one or more actions consistent with the accepted request, *e.g.*, accepting service to all calls. (Ex. 1003 at ¶ 95; Ex. 1006 at 19).

Therefore, for the above reasons, Choudhary rendered obvious limitation 1[b]. (Ex. 1003 at \P 96).

* * *

Thus, for the above reasons, Choudhary rendered obvious claim 1. (Ex. 1003 at \P 97).

Additionally, to the extent Choudhary itself does not precisely disclose each of the claim limitations, an ordinary artisan would have been motivated to modify Choudhary's teachings to apply the disclosed distributed architecture for policy-

based device access management of communication devices in order to reduce the workload and complexity of network management for administrators and reduce memory requirements on individual devices. (Ex. 1003 at ¶ 136). Any such modifications amount to no more than routine design choice between predictable and known solutions, and a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Choudhary's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Choudhary's disclosure contemplates a wide variety of policy types, and there is nothing in Choudhary that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Choudhary does not disclose any limitation, Choudhary's modification would have required no more than the application of prior art devices (i.e., communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 136).

2. Claim 2

Claim 2 depends from claim 1, which is rendered obvious by Choudhary as discussed above. (See supra § VII.A.1). Claim 2 further recites "wherein the policy

establishes a total prohibition on content that can be sent, received, or used." (Ex. 1001 at 16:4-6).

A POSITA would have appreciated that Choudhary broadly disclosed various types of policies that can be utilized to manage access to content for a communication device. For example, Choudhary disclosed "a policy can be a paper document, a table for selecting options, a sequence of logical assertions to automate operational decisions, or a tool to articulate business goals and service priorities and facilitate decisions in enforcing business rules and service priorities." (Ex. 1006 at Abstract). Choudhary further taught, as examples, that "policy actions are the responses that an organization wishes to enforce in case one or more of the specified policy events actually take place," which includes "rerouting traffic, switching on a backup system, suspending a user account, denying service to all calls except those related to an emergency operation, monitoring a call from and/or to a hot number, and disconnecting service to those clients." (Id. at 19). Choudhary also disclosed that the PDP generates decisions based on "relevant policies and current network conditions," wherein the conditions may include "source or destination addresses." (*Id.* at 22).

Accordingly, as disclosed by Choudhary, a POSITA would have been motivated to manage a wide variety of features of a communication device, including by implementing a total prohibition on the type of content that can be

accessed, *e.g.*, "source and destination addresses," (static policy) or based on "current bandwidth availability or date and time" (dynamic policy). (*Id.* at 22). In other words, a POSITA would have readily appreciated that a policy denying access to certain destination addresses or a policy denying access outside a certain timeframe would be a prohibition on the type of content that can be sent, received, or used. (Ex. 1003 at ¶ 99-100).

Therefore, for the above reasons, Choudhary rendered obvious claim 2. (Ex. 1003 at ¶ 101).

3. Claim 3

Claim 3 depends from claim 1, which is rendered obvious by Choudhary as discussed above. (*See supra* § VII.A.1). Claim 3 further recites "wherein the policy establishes a quantity limit on content that can be sent, received or used in a given period of time." (Ex. 1001 at 16:7-9).

As discussed above for claim 2, Choudhary broadly disclosed various types of policies that can be utilized to manage access for a communication device. For example, Choudhary disclosed "a policy can be a paper document, a table for selecting options, a sequence of logical assertions to automate operational decisions, or a tool to articulate business goals and service priorities and facilitate decisions in enforcing business rules and service priorities." (Ex. 1006 at Abstract). Choudhary further disclosed policies that establish a quantity limit as to the content that can be

sent, received, used, or accessed, *e.g.*, "source and destination addresses," based on "current bandwidth availability or date and time." (*Id.* at 22).

Accordingly, a POSITA would have appreciated that Choudhary disclosed policies that establish a quantity limit on content that can be sent, received, or used, in a given period of time. (Ex. 1003 at ¶¶ 103-104).

Therefore, for the above reasons, Choudhary rendered obvious claim 3. (Ex. 1003 at \P 105).

4. Claim 6

Claim 6 depends from claim 1, which is rendered obvious by Choudhary as discussed above. (*See supra* § VII.A.1). Claim 6 further recites "wherein the policy establishes a limit on a type of content that can be sent, received, or used." (Ex. 1001 at 16:19-21).

As discussed above with respect to claim 3, Choudhary disclosed this limitation. For example, Choudhary broadly disclosed categories of policies that can be implemented as part of the system, including policies "to articulate business goals and service priorities and facilitate decisions in enforcing business rules and service priorities." (Ex. 1006 at Abstract). As Choudhary taught, such policies may establish a quantity limit as to the content that can be sent, received, used, or accessed, which can include a quantity limit on content that can be sent, used, or

received, e.g., "source and destination addresses," or policies based on "current bandwidth availability or date and time." (Id. at 22).

Accordingly, a POSITA would have appreciated that Choudhary disclosed and suggested policies that establish a limit on content that can be sent, received, or used. (Ex. 1003 at ¶¶ 107-108).

Therefore, for the above reasons, Choudhary rendered obvious claim 6. (Ex. 1003 at ¶ 109).

5. Claim 10

Claim 10 depends from claim 1, which is rendered obvious by Choudhary as discussed above. (*See supra* § VII.A.1). Claim 10 further recites "wherein the policy establishes a time frame during which it is acceptable to send, receive, or use the content." (Ex. 1001 at 16:29-31).

As discussed above with respect to claim 3, Choudhary disclosed this limitation. For example, Choudhary broadly taught categories of policies used "to articulate business goals and service priorities and facilitate decisions in enforcing business rules and service priorities." (Ex. 1006 at Abstract). Choudhary further disclosed policies that establish a quantity limit as to the content that can be sent, received, used, or accessed, *e.g.*, "source and destination addresses," policies based on "current bandwidth availability or date and time." (*Id.* at 22).

Accordingly, a POSITA would have readily appreciated that Choudhary disclosed and suggested policies that establish a time frame during which content can be accessed, sent, or received. (Ex. 1003 at ¶¶ 111-112).

Therefore, for the above reasons, Choudhary rendered obvious claim 10. (Ex. 1003 at \P 113).

6. Claim 27

a. Claim 27 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

As discussed above in Section VII.A.1.a, to the extent the preamble is considered limiting, Choudhary disclosed these elements. (*See supra* § VII.A.1.a).

As previously stated, a POSITA would have appreciated that Choudhary disclosed systems for managing a communication device, *e.g.*, through use of policy enforcement points and policy decision points, that is used by a user and in real-time over a communication network. (Ex. 1003 at ¶ 114-115; Ex. 1006 at Figs. 1 and 2).

Therefore, for the above reasons, Choudhary renders obvious the preamble of claim 27. (Ex. 1003 at \P 116).

b. Claim 27[a]: a policy decider housed within a network device on the communication network for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to or from the communication device to perform the features

or functions based on one or more policies from the list of policies; and

As discussed above in Section VII.A.1.b, Choudhary discloses these elements. (*See supra* § VII.A.1.b).

A POSITA would have appreciated that Choudhary taught and suggested the use of a policy decider for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶ 117).

Claim 27[a] also includes the additional limitation wherein the policy decider is "housed within a network device on the communication network." Choudhary also disclosed this element. For example, Choudhary broadly taught that "managed objects" includes network elements but "does not have to be a physical entity such as a switch or a router," and can also be "software systems, subsystems, applications, and other entities [that] can also be managed by the policy-based management system." (Ex. 1006 at 21). Choudhary further taught that "the PDP could itself act as a managed object for the purpose of the PDP at a higher echelon within the hierarchy of PDPs." (*Id.* at 22). Accordingly, a POSITA would have appreciated that Choudhary disclosed that the policy decider (*i.e.*, PDP) could be housed on a network device. (Ex. 1003 at ¶ 118; Ex. 1006 at Figs. 1 and 2, 24).

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

Therefore, for the above reasons, Choudhary renders obvious element 27[a] of claim 27. (Ex. 1003 at ¶ 119).

c. Claim 27[b]: a policy enforcer housed within a network device on the communication network for communicating the request to the policy decider and enforcing a decision by the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

As discussed above in Section VII.A.1.c, Choudhary discloses these elements. (See supra § VII.A.1.c).

A POSITA would have appreciated that Choudhary disclosed a policy enforcer for communicating the request to the policy decider, which enforces a decision received from the policy decider as to whether the request has been accepted or denied. (Ex. 1003 at ¶ 120; Ex. 1006 at Figs. 1 and 2, 21 ("[t]he PEP communicates with the PDP using a standard protocol"), 22 ("the PDP performs the following functions ... receiving policy decision requests from PEPs ... sending policy elements to the PEP")). A POSITA would have understood that the PEP would have implicitly notified the user if the request has been denied by taking one or more actions consistent with the denied request, *e.g.*, "denying service to all calls," or by taking one or more actions consistent with the accepted request, *e.g.*, allowing calls. (Ex. 1003 at ¶ 120; Ex. 1006 at 19).

Claim 27[b] also includes the additional limitation wherein the policy enforcer is "housed within a network device on the communication network." Choudhary also disclosed this element. For example, Choudhary taught that "[e]ach managed object supports a policy agent known as a policy enforcement point (PEP)" that includes devices such as network elements but "does not have to be a physical entity such as a switch or a router," and can also be "software systems, subsystems, applications, and other entities [that] can also be managed by the policy-based management system." (Ex. 1006 at 21). Accordingly, a POSITA would have appreciated that Choudhary disclosed that the policy enforcer, *i.e.*, the PDP, could be housed on a network device. (Ex. 1003 at ¶ 121; Ex. 1006 at Figs. 1 and 2, 24).

Therefore, for the above reasons, Choudhary renders obvious element 27[b] of claim 27. (Ex. 1003 at ¶ 122).

* * *

Thus, for the above reasons, Choudhary rendered obvious claim 27. (Ex. 1003 at \P 123).

Additionally, to the extent Choudhary itself does not precisely disclose each of the claim limitations, an ordinary artisan would have been motivated to modify Choudhary's teachings to apply the disclosed distributed architecture for policy-based device access management of communication devices in order to reduce the workload and complexity of network management for administrators and reduce

memory requirements on individual devices. (Ex. 1003 at ¶ 136). Any such modifications amount to no more than routine design choice between predictable and known solutions, and a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Choudhary's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Choudhary's disclosure contemplates a wide variety of policy types, and there is nothing in Choudhary that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Choudhary does not disclose any limitation, Choudhary's modification would have required no more than the application of prior art devices (i.e., communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 136).

7. Claim 33

a. Claim 33 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

As discussed above in Sections VII.A.1.a and VII.A.6.a, to the extent the preamble is considered limiting, Choudhary disclosed these elements. (*See supra* § VII.A.1.a).

As previously stated, a POSITA would have appreciated that Choudhary disclosed systems for controlling a communication device, *e.g.*, through use of policy enforcement points and policy decision points, that is used by a user and in real-time over a communication network. (Ex. 1003 at ¶ 125; Ex. 1006 at Figs. 1 and 2).

Therefore, for the above reasons, Choudhary renders obvious the preamble of claim 33. (Ex. 1003 at ¶¶ 126).

b. Claim 33[a]: a policy decider for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to or from the communication device to perform the features or functions based on one or more policies from the list of policies; and

As discussed above in Section VII.A.1.b, Choudhary discloses these elements. (*See supra* § VII.A.1.b).

A POSITA would have appreciated that Choudhary taught and suggested the use of a policy decider for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶ 127; Ex. 1006 at Figs. 1 and 2, 20, 22).

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

Therefore, for the above reasons, Choudhary renders obvious element 33[a] of claim 33. (Ex. 1003 at ¶ 128).

c. Claim 33[b]: a policy enforcer for communicating the request to the policy decider and enforcing a decision by the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

As discussed above in Section VII.A.1.c, Choudhary discloses these elements. (See supra § VII.A.1.c).

A POSITA would have appreciated that Choudhary disclosed a policy enforcer for communicating the request to the policy decider, which enforces a decision received from the policy decider as to whether the request has been accepted or denied. (Ex. 1003 at ¶ 129; Ex. 1006 at Figs. 1 and 2, 21 ("[t]he PEP communicates with the PDP using a standard protocol"), 22 ("the PDP performs the following functions ... receiving policy decision requests from PEPs ... sending policy elements to the PEP")). A POSITA would have understood that the PEP would have implicitly notified the user if the request has been denied by taking one or more actions consistent with the denied request, *e.g.*, "denying service to all calls," by taking one or more actions consistent with the accepted request, *e.g.*, allowing calls. (Ex. 1003 at ¶ 129; Ex. 1006 at 19).

Petition for *Inter Partes* Review of U.S. Patent No. 7,899,438

Therefore, for the above reasons, Choudhary renders obvious element 33[b] of claim 33. (Ex. 1003 at ¶ 130).

* * *

Thus, for the above reasons, Choudhary rendered obvious claim 33. (Ex. 1003 at \P 131).

Additionally, to the extent Choudhary itself does not precisely disclose each of the claim limitations, an ordinary artisan would have been motivated to modify Choudhary's teachings to apply the disclosed distributed architecture for policybased device access management of communication devices in order to reduce the workload and complexity of network management for administrators and reduce memory requirements on individual devices. (Ex. 1003 at ¶ 136). Any such modifications amount to no more than routine design choice between predictable and known solutions, and a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Choudhary's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Choudhary's disclosure contemplates a wide variety of policy types, and there is nothing in Choudhary that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Choudhary does not disclose any limitation, Choudhary's modification would have required no more than the

application of prior art devices (*i.e.*, communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 136).

8. Choudhary is Analogous Art to the '438 Patent

It is proper for a POSITA to look to the teachings of Choudhary in assessing the obviousness of the claims as set forth above. "Two separate tests define the scope of analogous art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." Innovation Toys, LLC v. MGA Entm't, Inc., 637 F.3d 1314, 1321 (Fed. Cir. 2011) (emphasis added).

Here, Choudhary qualifies as analogous art under both tests because it: 1) is from the same field of endeavor as the '438 patent (*i.e.*, "real-time management of a device"); and 2) is reasonably pertinent to the particular problem with which the inventor was involved (*i.e.*, the management of a device and/or access to network resources).

First, Choudhary identifies a similar problem – i.e., management of user behavior and/or access to network resources, as the one identified in the '438 patent. (Compare Ex. 1006 at Abstract, 19-20 with Ex. 1001 at 1:12-27; Ex. 1003 at ¶ 134).

Further, a POSITA would have understood Choudhary is in the same field of endeavor as the '438 patent, *i.e.*, the field of access control for a device. (*Compare* Ex. 1001 at 1:12-15 with Ex. 1006 at Abstract, 24-25; Ex. 1003 at ¶ 134). Therefore, Choudhary is analogous art under the first test. *Airbus S.A.S. v. Firepass Corp.*, 941 F.3d 1374, 1379 (Fed. Cir. 2019).

Second, Choudhary qualifies as analogous art because it is reasonably pertinent to the particular problem with which the inventor was involved. For example, Choudhary discloses managing access from a user device through the use of elements such as a "policy enforcement point (PEP)" and a "policy decision point (PDP)" where "[t]he PDP uses a policy repository that contains the parameters and data structures that the PDP needs to evaluate the policy rules to make policy-based management decisions." (Ex. 1006 at 20; Ex. 1003 at ¶ 135). These elements are identical both in structure, and in function, as the '438 purports to effectuate control over user devices, *i.e.*, "[t]he PEP 28 is a logical element that ... is responsible for enforcing decisions by ... policy decision point 29." (Ex. 1001 at 8:20-27, 8:28-29 ("[t]he PEP 28 operates in conjunction with the policy decision point (PDP) 29")). Thus, Choudhary qualifies as analogous art under either test.

B. Ground 2: Putzolu Renders Obvious Claims 1, 27, and 33

1. Claim 1

a. Claim 1 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

To the extent the preamble is considered limiting, Putzolu disclosed these elements. Putzolu described "[p]olicy-based network management [as] a relativelyrecent advance in the field of network management, responding in part to the dramatic changes that have taken place in the way the Internet and corporate networks (e.g., intranets) are used." (Ex. 1007 at 2:30-34). Putzolu disclosed "an improved policy-based network management system." (Id. at 2:29-30). explained by Putzolu, in one embodiment, the architecture includes "a single control domain 10 for network management purposes," where "[c]ontrol domain 10 may be, for example, a Windows NT domain or a routing administrative domain (AD)." (Id. at 2:53-59). The "[c]ontrol domain 10 includes a policy server 18 accessible through (Id. at 3:1-2). The "[p]olicy server 18 is capable of policy console 14." communicating with a plurality of policy clients 22." (*Id.* at 3:18-19). The "[p]olicy client 22 typically resides at a network device responsible for data forwarding, such as a LAN switch, a router, or a firewall." (*Id.* at 3:29-31).

In operation, "when policy client 22 receives a request for access to a resource under its control, it simply sends a query to policy server 18," where "[p]olicy server

18 determines whether to allow the access, and communicates the decision to policy client 22." (*Id.* at 3:31-39). "Each policy client 22 serves as a policy enforcement point for policy-based control over the use of network resources." (*Id.* at 3:19-21). "Based on the response from policy server 18, policy client 22 enforces the decision by either allowing or disallowing the request." (*Id.* at 3:26-28). Therefore, Putzolu disclosed and suggested that the policy client resides on a communication device (*e.g.*, a router, a firewall, or a network device) that is used by a user to perform a function (*e.g.*, permitting the use of a network resource) on a communication network (*e.g.*, control domain). (Ex. 1003 at ¶¶ 139-140).

The policy clients of Putzolu (outlined in red in FIG. 1 below) are implemented on communication devices that perform the same function as the '438 patent's "policy enforcement points" (outlined in red in FIG. 2 below). (See Ex. 1001 at 8:25-33).

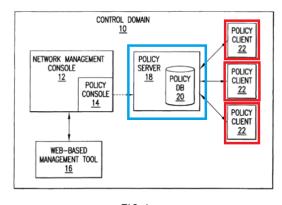


FIG.1 (Ex. 1007 (Putzolu) at Fig. 1) (Annotated)

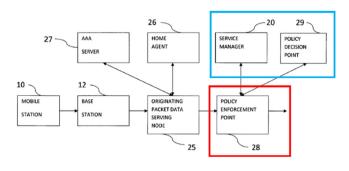


FIG. 2 (Ex. 1001 ('438 Patent) at Fig. 2) (Annotated)

Putzolu disclosed that a policy client (e.g., a policy enforcement point) may serve as an intermediary between a communication device and a policy server (e.g., a policy decision point). (Ex. 1007 at 3:18-21 ("Policy server 18 is capable of communicating with a plurality of policy clients 22. Each policy client 22 serves as a policy enforcement point for policy-based control over the use of network resources.")).

Accordingly, a POSITA would have appreciated that Putzolu disclosed systems for controlling a communication device, *e.g.*, through use of policy enforcement points and policy decision points, in real-time over a communication network, wherein the communication device is used by a user. (Ex. 1003 at ¶¶ 141-143).

Therefore, for the above reasons, Putzolu renders obvious the preamble of claim 1. (Ex. 1003 at ¶ 144).

b. Claim 1[a]: a policy decider for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies, the list of policies including a policy for managing content that can be sent, received, or used by the communication device; and

The policy server, *i.e.*, the policy decider, of Putzolu receives the access request (sometimes referred to as a "query" in Putzolu) from the policy client. (Ex.

1007 at 3:34-38 ("[W]hen policy client 22 receives a request for access to a resource under its control, it simply sends a query to policy server 18 using an appropriate protocol (an example of which is described below).")). Putzolu disclosed that "policy server 18 maintains a policy database 20 containing policy specification information for established policies." (*Id.* at 3:7-9; *id.* at 3:15-17 ("Although policy database 20 is shown as part of policy server 18, it need not be physically resident on policy server 18.")).

"Policy server 18 uses information *stored in policy database 20* and current state information (*e.g.*, state of any already-admitted requests) to determine whether to accept the request, and *then sends a response to policy client 22*." (*Id.* at 4:57-61). "Policy server 18 determines whether to allow the access, and *communicates the decision* to policy client 22." (*Id.* at 3:38-39). The policy client receives the decision (or response) from the policy server in real-time. (*Id.* at 4:57-61; *id.* at 9:14-20 ("The conditions associated with a given policy rule may be evaluated periodically by the policy server, or may be evaluated in response to some trigger event, as in the foregoing example. This latter approach has the advantage of leveraging current PBNM architectures wherein PDPs automatically evaluate policy conditions when a request is made for a managed resource.")).

Moreover, Putzolu disclosed that such policies can include policies directed towards the type of content that can be used, sent, or received. (*Id.* at 4:31-43

(disclosing a "set of policies designed to restrict the use of network bandwidth" including "an application desiring access to a network resource, such as a corporate database..."), id. at 6:42-46 ("policy rules involving the following aspects: privileges based on an entity's identity, application of rules to groups of entities, restrictions based on time, restrictions based on the number or amount of usage, and support for logical combinations of basic rules."), id. at 1:34-46 ("Policy decision points (PDPs) store policies, examine requests for access to network resources received from policy enforcement points (PEPs), and compare such requests to any policies that have been established for those resources. If such established policies exist, PDPs decide on the appropriate action (e.g., approve or deny an access request) and accordingly inform one or more policy enforcement points (PEPs). Policy enforcement points are responsible for enforcing the policy decision."); see also Ex. 1008 at [0037] ("[a] resource is an object defined by the service type and identifiable by a unique name" such as "MailServer1," "a Uniform Resource Identifier (URI) or (URL)," Uniform Resource Locator "a site or Web such as http://abcweb.abc.com")).

Based on Putzolu's teachings, a POSITA would have appreciated that Putzolu taught and suggested the use of a policy decider for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request sent to or from the

communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶¶ 146-149). A POSITA would have further appreciated that the list of policies can include a policy for managing content that can be sent, received, or used by the communication device on the communication network, *e.g.*, privileges based on the user's identity, restrictions based on the number or amount of usage, or accessing content from network resources, *i.e.*, content from a corporate database. (Ex. 1003 at ¶ 149; Ex. 1007 at Fig. 1, 4:31-43, 6:42-49).

Therefore, for the above reasons, Putzolu renders obvious element 1[a] of claim 1. (Ex. 1003 at ¶ 150).

c. Claim 1[b]: a policy enforcer for communicating the request to the policy decider and enforcing a decision by the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

As explained above in Sections VII.B.1.a-b, the policy client (*i.e.*, the policy enforcer or PEP) in Putzolu communicates the request to the policy server (*i.e.*, the policy decider or PDP), and enforces the decision received from the policy server. (*See supra* § VII.B.1.a-b).

After receiving the decision from the policy server, the policy client enforces the decision. (Ex. 1007 at 3:26-28 ("Based on the response from policy server 18, policy client 22 enforces the decision by either allowing or disallowing the

request."); *id.* at 4:57-62 ("Policy server 18 uses information stored in policy database 20 and current state information (*e.g.*, state of any already-admitted requests) to determine whether to accept the request, and then sends a response to policy client 22. *Policy client 22 then either admits or denies the request as appropriate.*")).

In certain embodiments, enforcing the decision from the policy server includes enabling features or functions based on the list of policies, including content that can be used, sent, or received, e.g., access to a network resource, over the communication network when the decision grants the request -i.e., providing access to the network resource or denying such access. (Id. at claim 25 ("A policy-based network management system comprising: a policy enforcement point to selectively enable access to a network resource"); id. at 1:13-15 ("Network resources might include, for example, database servers, hosts, switches, routers, and firewalls."); id. at 4:35-37, 10:54-67). Additionally, Putzolu disclosed that enforcing the decision from the policy server includes taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request. (Id. at 5:16-22 ("For example, a response from policy server 18 may include a nonnegative integer indicating a relative priority of the response: higher numbers indicating higher priority, and the value zero being used to completely deny a

request."); id. at 4:61-62 ("Policy client 22 then either admits or denies the request as appropriate.")).

Based on these teachings from Putzolu, a POSITA would recognize that Putzolu disclosed that the policy server (*i.e.*, the policy decider) uses information stored in the policy database to generate a decision, wherein the decision is then sent to the policy client (*i.e.*, the policy enforcer) for enforcement. (*See* Ex. 1007 at 4:55-65 ("Policy server 18 uses information stored in policy database 20 ... to determine whether to accept the request, and then sends a response to policy client 22. Policy client 22 then either admits or denies the request as appropriate."); *id.* at Fig. 1). A POSITA reading the claim would have understood that the "decision" is distinct from the "policy" itself. (Ex. 1003 at ¶ 153-155).

This is because the architecture disclosed in Figure 1 of Putzolu makes clear that in this embodiment, the policy client is physically separate from the policy server, as they are on different servers, and that only a decision based upon a policy – not the policy itself – is being communicated back to the policy client: "In the PBNM architecture shown in FIG. 1, policy client 22 is configured to *outsource* such decisions to policy server 18. Based on the response from policy server 18, policy client 22 enforces the decision by either allowing or disallowing the request." (Ex. 1007 at 3:24-28; Ex. 1003 at ¶ 156). Further, Putzolu disclosed that "[i]n the PBNM architecture shown in FIG. 1, policy client 22 can be configured with a

relatively-simple structure because it off-loads policy-interpretation tasks to policy server 18." (Ex. 1007 at 3:31-34) (emphasis added).

Therefore, for the above reasons, Putzolu rendered obvious element 1[c] of claim 1. (Ex. 1003 at ¶ 157).

* * *

Thus, for the above reasons, Putzolu rendered obvious claim 1. (Ex. 1003 at ¶ 158).

Additionally, to the extent Putzolu itself does not precisely disclose each of the claim limitations, a POSITA would have been motivated to modify its teachings to apply a distributed architecture for policy-based device access management in order to reduce the workload and complexity of network management for administrators and reduce memory requirements on individual devices. (Ex. 1003) at ¶ 181). Accordingly, any such modifications amount to no more than the design choice between predictable and known solutions, wherein a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Putzolu's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Putzolu discloses a wide variety of policies, and there is nothing in Putzolu that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Putzolu does not disclose any limitation, Putzolu's modification would have required no more than the application of prior art devices (*i.e.*, communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 181).

2. Claim 27

a. Claim 27 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

As discussed above in Section VII.B.1.a, to the extent the preamble is considered limiting, Putzolu disclosed these elements. (*See supra* § VII.B.1.a).

A POSITA would have appreciated that Putzolu disclosed systems for controlling a communication device, *e.g.*, through use of policy servers (*i.e.*, policy decision points) and policy clients (*i.e.*, policy enforcement points), that is used by a user and in real-time over a communication network. (Ex. 1003 at ¶ 160; Ex. 1007 at Figs. 1 and 2).

Therefore, for the above reasons, Putzolu renders obvious the preamble of claim 27. (Ex. 1003 at ¶ 161).

b. Claim 27[a]: a policy decider housed within a network device on the communication network for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to

or from the communication device to perform the features or functions based on one or more policies from the list of policies; and

As discussed above in Section VII.B.1.b, Putzolu discloses these elements. (See supra § VII.B.1.b).

A POSITA would have appreciated that Putzolu taught and suggested the use of a policy server (*i.e.*, policy decider) for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶ 162; Ex. 1007 at 1:34-44).

Claim 27[a] also includes the additional limitation wherein the policy decider is "housed within a network device on the communication network." Putzolu also disclosed this element. For example, Putzolu disclosed embodiments wherein the policy-based network management system is described as "control domain 10," which "includes a policy server 18 accessible through policy console 14" and where "policy server 18 maintains a policy database 20 containing policy specification information for established policies." (Ex. 1007 at 3:1-16, Fig. 1). Putzolu further taught that "[p]olicy server 18 is capable of communicating with a plurality of policy clients 22." (*Id.* at 3:18-20). Accordingly, a POSITA would have appreciated that Putzolu disclosed that the policy decider (*i.e.*, the PDP or policy server), would be

housed on a network device, *e.g.*, a "server" or other similar network element. (Ex. 1003 at ¶ 163; Ex. 1007 at Figs. 1 and 2, 3:29-31 ("Policy client 22 typically resides at a network device")).

Therefore, for the above reasons, Putzolu renders obvious element 27[a] of claim 27. (Ex. 1003 at ¶ 164).

c. Claim 27[b]: a policy enforcer housed within a network device on the communication network for communicating the request to the policy decider and enforcing a decision by the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

As discussed above in Section VII.B.1.c, Putzolu discloses these elements. (See supra § VII.B.1.c).

A POSITA would have appreciated that Putzolu disclosed a policy enforcer (*i.e.*, the PEP or policy client) for communicating the request to the policy decider (*i.e.*, the PDP or policy server), which enforces a decision received from the policy decider as to whether the request has been accepted or denied. (Ex. 1003 at ¶ 165; Ex. 1007 at 3:1-31, 3:38-41 ("[p]olicy server 18 determines whether to allow the access, and communicates the decision to policy client 22.")). A POSITA would have understood that the PEP would have implicitly notified the user if the request has been denied and by taking one or more actions consistent with the denied request,

or by taking one or more actions consistent with the accepted request, e.g., "allowing or disallowing the request." (Ex. 1003 at ¶ 165; Ex. 1007 at 3:26-28).

Claim 27[b] also includes the additional limitation wherein the policy enforcer is "housed within a network device on the communication network." Putzolu also disclosed this element. For example, Putzolu taught that "[p]olicy client 22 typically resides at a network device responsible for data forwarding, such as a LAN switch, a router, or a firewall." (Ex. 1007 at 3:28-31). Accordingly, a POSITA would have appreciated that Putzolu disclosed that the policy enforcer, *i.e.*, the PEP, would be housed on a network device. (Ex. 1003 at ¶ 166; Ex. 1007 at Figs. 1 and 2, 3:1-40).

Therefore, for the above reasons, Putzolu renders obvious element 27[b] of claim 27. (Ex. 1003 at ¶ 167).

* * *

Thus, for the above reasons, Putzolu rendered obvious claim 27. (Ex. 1003 at ¶ 168).

Additionally, to the extent Putzolu itself does not precisely disclose each of the claim limitations, a POSITA would have been motivated to modify its teachings to apply a distributed architecture for policy-based device access management in order to reduce the workload and complexity of network management for administrators and reduce memory requirements on individual devices. (Ex. 1003 at ¶ 181). Accordingly, any such modifications amount to no more than the design

choice between predictable and known solutions, wherein a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Putzolu's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Putzolu discloses a wide variety of policies, and there is nothing in Putzolu that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Putzolu does not disclose any limitation, Putzolu's modification would have required no more than the application of prior art devices (*i.e.*, communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 181).

3. Claim 33

a. Claim 33 Preamble: A system for managing in real-time a communication device used by a user on a communication network, comprising:

As discussed above in Sections VII.B.1.a and VII.B.2.a, to the extent the preamble is considered limiting, Putzolu disclosed these elements. (*See supra* §§ VII.B.1.a and VII.B.2.a).

A POSITA would have appreciated that Putzolu disclosed systems for controlling a communication device, e.g., through use of policy servers (i.e., policy

decision points) and policy clients (*i.e.*, policy enforcement points), that is used by a user and in real-time over a communication network. (Ex. 1003 at \P 170; Ex. 1007 at Figs. 1 and 2).

Therefore, for the above reasons, Putzolu renders obvious the preamble of claim 33. (Ex. 1003 at ¶ 171).

b. Claim 33[a]: a policy decider for storing a list of policies that control one or more features or functions associated with the communication device and for automatically deciding to accept or deny a request sent to or from the communication device to perform the features or functions based on one or more policies from the list of policies; and

As discussed above in Sections VII.B.1.b and VII.B.2.b, Putzolu discloses these elements. (*See supra* §§ VII.B.1.b and VII.B.2.b).

A POSITA would have appreciated that Putzolu taught and suggested the use of a policy server (*i.e.*, policy decider) for storing a list of policies that control one or more features or functions associated with the communication device, and which automatically decides to accept or deny a request sent to or from the communication device to perform the features or functions based on the list of policies. (Ex. 1003 at ¶ 172; Ex. 1007 at 1:34-44).

Therefore, for the above reasons, Putzolu renders obvious element 33[a] of claim 33. (Ex. 1003 at ¶ 173).

c. Claim 33[b]: a policy enforcer for communicating the request to the policy decider and enforcing a decision by

the policy decider as to whether the request has been accepted or denied by either notifying the user of the denied request and taking one or more actions consistent with the denied request or taking one or more actions consistent with the accepted request.

As discussed above in Sections VII.B.1.c and VII.B.2.c, Putzolu discloses these elements. (*See supra* §§ VII.B.1.c and VII.B.2.c).

A POSITA would have appreciated that Putzolu disclosed a policy enforcer (*i.e.*, the PEP or policy client) for communicating the request to the policy decider (*i.e.*, the PDP or policy server), which enforces a decision received from the policy decider as to whether the request has been accepted or denied. (Ex. 1003 at ¶ 174; Ex. 1007 at 3:1-31 ("policy client 22 enforces the decision by either allowing or disallowing the request"), 3:38-41 ("[p]olicy server 18 determines whether to allow the access, and communicates the decision to policy client 22.")). A POSITA would have understood that the PEP would have notified the user if the request has been denied and by taking one or more actions consistent with the denied request, or by taking one or more actions consistent with the accepted request, *e.g.*, "allowing or disallowing the request." (Ex. 1003 at ¶ 174; Ex. 1007 at 3:26-28).

Therefore, for the above reasons, Putzolu renders obvious element 33[b] of claim 33. (Ex. 1003 at ¶¶ 175).

* * *

Thus, for the above reasons, Putzolu rendered obvious claim 33. (Ex. 1003 at \P 176).

Additionally, to the extent Putzolu itself does not precisely disclose each of the claim limitations, a POSITA would have been motivated to modify its teachings to apply a distributed architecture for policy-based device access management in order to reduce the workload and complexity of network management for administrators and reduce memory requirements on individual devices. (Ex. 1003) at ¶ 181). Accordingly, any such modifications amount to no more than the design choice between predictable and known solutions, wherein a POSITA would have had a reasonable expectation of success. Indeed, an ordinary artisan would have expected success in modifying Putzolu's disclosure, for example, by designing and adjusting the type of policies that an administrator can implement, because Putzolu discloses a wide variety of policies, and there is nothing in Putzolu that suggests implementing certain policy types would be uniquely difficult. Thus, an ordinary artisan would have recognized that, to the extent Putzolu does not disclose any limitation, Putzolu's modification would have required no more than the application of prior art devices (i.e., communication devices, policy enforcers, and policy deciders), according to known methods of network connectivity and software to yield a predictable result of implementing policy-based control over communication devices. (Ex. 1003 at ¶ 181).

4. Putzolu is Analogous Art to the '438 Patent

It is proper for a POSITA to look to the teachings of Putzolu in assessing the obviousness of the claims as set forth above. As mentioned above, there are two tests for determining whether a reference qualifies as analogous art: "1) whether the art is from the same field of endeavor, *regardless of the problem addressed*, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *Innovation Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011) (emphasis added). Here, as with Choudhary, Putzolu qualifies as analogous art under both tests.

First, Putzolu identifies a similar problem – i.e., management of user behavior and/or access to network resources, as the one identified in the '438 patent. (Compare Ex. 1007 at 2:29-39, 2:46-48 with Ex. 1001 at 1:12-27; Ex. 1003 at ¶¶ 178-179). Further, a POSITA would have understood Putzolu is in the same field of endeavor as the '438 patent, i.e., the field of access control for a computing or networking device. (Ex. 1003 at ¶ 179; Compare Ex. 1001 at 1:12-15 with Ex. 1007 at 1:6-8). Therefore, Putzolu is analogous art. Airbus S.A.S. v. Firepass Corp., 941 F.3d 1374, 1379 (Fed. Cir. 2019).

Second, Putzolu qualifies as analogous art because it is reasonably pertinent to the particular problem with which the inventor was involved. For example,

Putzolu discloses managing access from a device through the use of elements such as a "policy enforcement point" and a "policy decision point," where, for example, "policy server 18 comprises a policy decision point and policy client 22 comprises a policy enforcement point." (Ex. 1007 at 4:63-65; Ex. 1003 at ¶ 180). These elements are identical both in structure, and in function, as the '438 patent's solution purports to effectuate control over user devices, *i.e.*, "[t]he PEP 28 is a logical element that ... is responsible for enforcing decisions by ... policy decision point 29." (Ex. 1001 at 8:20-27, 8:28-29 ("[t]he PEP 28 operates in conjunction with the policy decision point (PDP) 29"). Thus, Putzolu qualifies as analogous art under either test.

C. Secondary Considerations

Petitioner is not aware of any alleged evidence of secondary considerations that may support the patentability of the Challenged Claims or that any such evidence bears a nexus to the patented invention. Petitioner expressly reserves the right to respond to any allegations of secondary considerations that may be asserted by Patent Owner in this proceeding.

VIII. DISCRETIONARY DENIAL UNDER THE *FINTIV* FACTORS IS NOT APPROPRIATE

Discretionary denial under *Fintiv* is inappropriate in this case. A *Fintiv* analysis should only apply "where the district court has set a trial date to occur earlier

than the Board's deadline to issue a final written decision" Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 3 (PTAB Mar. 20, 2020) (precedential). Here, Fintiv analysis should not apply because the parallel Trend Micro Litigation has been stayed pending the outcome of an Inter Partes review proceeding involving the asserted and related '559 patent, and because Kajeet has not yet asserted the '438 patent in the parallel Litigation; only the related '559 patent is currently asserted against Trend Micro. While Kajeet has since filed a "conditional" motion to amend its complaint to add the '438 patent, Kajeet simultaneously moved to stay the *Trend* Micro Litigation pending the outcome of an Inter Partes review proceeding involving the related '559 patent, which was granted. (Ex. 1009; Ex. 1010); see NortonLifeLock Inc. v. Kajeet, Inc., IPR2022-00001 (Oct. 1, 2021). Consequently, the court in the *Trend Micro* Litigation has not yet considered Trend Micro's opposition to Kajeet's conditional motion or granted Kajeet leave to file any amended complaint asserting the '438 patent.

The Board balances six factors in considering denial under § 314. These factors strongly favor institution. The district court case is in its very early stages. Patent Owner submitted its original complaint April 21, 2021, but that complaint did not include any claims of infringement of the '438 patent. (*See* Ex. 1011). Although Kajeet filed a motion to amend its original complaint to add the '438 patent to the Litigation, the district court denied Kajeet's motion as moot based on the decision

to stay the Litigation pending the related *inter partes* review for the asserted '559 patent. Thus, the '438 patent has not yet been added to the case as an asserted patent, and this Petition is not subject to a one-year time bar pursuant to 35 U.S.C. § 315(b). Nevertheless, since Kajeet filed its conditional motion to amend its complaint, Petitioner has worked diligently to prepare this Petition.

A. Whether Evidence Exists that a Stay May be Granted if a Proceeding is Instituted

In the Litigation, the *Trend Micro* court granted Kajeet's motion to stay and vacated all current deadlines pending entry of a final written decision of *Inter Partes* review IPR2022-00001. (Ex. 1010); *Snap, Inc. v. SRK Technology LLC*, IPR2020-00820, Paper 15 at 9 (PTAB Oct. 21, 2020) (precedential) (recognizing "[t]he granting of a stay pending *inter partes* review has weighed strongly against exercising discretion to deny institution under *NHK*."). Thus, this factor weighs against discretionary denial.

B. Proximity of the Court's Trial Date to the Board's Projected Statutory Deadline for a Final Written Decision

Because the *Trend Micro* court granted Kajeet's motion to stay, all deadlines have been vacated until the entry of a Final Written Decision for the related '559 patent subject to IPR2022-00001. Because no trial date has been set (or even will be set in the foreseeable future), this factor weighs against discretionary denial. *See Sand Revolution II, LLC*, v. Continental Intermodal Group, IPR2019-01393, Paper

24 at 8-10 (PTAB Jun. 16, 2020) (panel granting institution on rehearing based on finding that uncertainty over district court's trial date weighed against discretionary denial).

C. Investments in the Parallel Proceeding by the Court and the Parties

The co-pending Litigation is in its early stages, and the '438 patent has not even been part of those proceedings. Accordingly, any investment by the parties in that Litigation has not been related to the challenged '438 patent. All of the deadlines have been vacated by way of the *Trend Micro* Court's order granting a stay. (Ex. 1010). Indeed, the parties have yet to take a single witness deposition, and as discussed above, the Litigation has been stayed. Thus, this factor weighs against discretionary denial.

D. Overlap Between Issues Raised in the Petition and in the Parallel Proceeding

To the extent the Board institutes trial, Petitioner will not assert in the copending Litigation the combination of references on which trial is instituted for the claims, to the extent Patent Owner is even permitted to assert the '438 patent against Petitioner. Instituting a proceeding will allow the Board to address the asserted prior art, and prospective issues will be narrowed in the co-pending Litigation due to the estoppel provisions of 35 U.S.C. § 315(e)(2).

Accordingly, there will be no overlap of prior art issues between this proceeding and the district court litigation between Petitioner and Patent Owner, and this factor weighs against discretionary denial.

E. Whether the Petitioner and the Defendant in the Parallel Proceeding are the Same Party

Petitioner is a defendant in the Litigation. (Ex. 1009; Ex. 1010). That is true of most Petitioners in IPR proceedings. While *Fintiv* indicates that a difference between the district court defendant and the petitioner may weigh against discretionary denial, nothing in *Fintiv* suggests that identity of the parties weighs in favor of discretionary denial. Accordingly, this factor is neutral and should not be a basis for denying institution.

F. Other Circumstances that Impact the Board's Exercise of Discretion, Including the Merits

As discussed in detail above, the prior art presented in this Petition renders the Challenged Claims unpatentable as obvious. The merits of Petitioner's arguments are strong, and this factor weighs against discretionary denial.

Furthermore, the '438 patent has been asserted in district court litigation in multiple different jurisdictions, and a decision by the PTAB on this Petition would potentially provide guidance regarding the validity of the Challenged Claims that would apply across multiple different pending cases.

As such, because the Fintiv factors are either neutral or weigh against

discretionary denial, and because this Petition was filed before any statutory bar date

would potentially even apply, institution should not be denied based on discretionary

factors.

THE PETITION SHOULD NOT BE DISCRETIONARILY DENIED IX.

UNDER 325(d)

The claims of the '438 Patent have not been considered in view of any of the

prior art relied upon in this Petition, or in view of the declaration of Dr. Madisetti.

Accordingly, the present Petition should not be discretionarily denied under 35

U.S.C. § 325(d). Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte

GmbH, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential).

X. **CONCLUSION**

Petitioner has established a reasonable likelihood that the Challenged Claims

are unpatentable.

Dated: November 10, 2022

Respectfully submitted,

/Charanjit Brahma/

BENESCH FRIEDLANDER COPLAN &

ARONOFF LLP

100 Pine Street, Suite 3100

San Francisco, CA 94111

Tel: (628) 600-2250

Attorney for Petitioner

68

CERTIFICATE OF COMPLIANCE

This Petition complies with the word count limits set forth in 37 C.F.R. § 42.24(a)(1)(i), because this Petition contains 13,997 words, excluding the parts of the Petition exempted by 37 C.F.R. § 42.24(a)(1) and determined using the word count provided by Microsoft Word, which was used to prepare this Petition.

Dated: November 10, 2022 Respectfully submitted,

/Charanjit Brahma/

BENESCH FRIEDLANDER COPLAN & ARONOFF LLP 100 Pine Street, Suite 3100 San Francisco, CA 94111 Tel: (628) 600-2250

Attorney for Petitioner

CERTIFICATE OF SERVICE

Under 37 C.F.R. §§ 42.6(e) and 42.105(a), this is to certify that on November 10, 2022, I caused to be served a true and correct copy of the foregoing "PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,899,438" and Exhibits 1001–1011 by Priority Mail Express® on the Patent Owner at the correspondence address of record for U.S. Patent No. 7,899,438:

Timothy D. Casey
BAKER HOSTETLER
2929 Arch Street Cira Centre, 12th Floor
Philadelphia PA 19104-2891

A courtesy copy of this Petition and supporting material was also served on litigation counsel for Patent Owner via email:

Jonathan T. Suder
Richard Wojcio
jts@fsclaw.com
wojcio@fsclaw.com
FRIEDMAN, SUDER & COOKE
604 East 4th Street, Suite 200
Fort Worth, TX 76102

/Charanjit Brahma/

BENESCH FRIEDLANDER COPLAN & ARONOFF LLP 100 Pine Street, Suite 3100 San Francisco, CA 94111 Tel: (628) 600-2250

Attorney for Petitioner