

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PALO ALTO NETWORKS, INC.,

Petitioner,

v.

TAASERA LICENSING LLC,

Patent Owner.

Patent No. 8,955,038

Filing Date: August 16, 2012

Issue Date: February 10, 2015

Inventors: Blair Nicodemus and Billy Edison Stephens

Title: METHODS AND SYSTEMS FOR CONTROLLING ACCESS
TO COMPUTING RESOURCES BASED ON KNOWN
SECURITY VULNERABILITIES

PATENT OWNER'S RESPONSE

Case No. IPR2023-00573

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EXHIBIT LIST

Exhibit No.	Description of Document
2001	Fifth Amended Docket Control Order, Dkt. 225, <i>In re: Taasera Licensing LLC, Patent Litigation</i> , No. 2:22-md-03042-JRG (E.D. Tex. May 19, 2023)
2002	Defendants' Joint Patent L.R. 3-3 Invalidity Contentions and Subject Matter Ineligibility Contentions, <i>In re: Taasera Licensing LLC, Patent Litigation</i> , No. 2:22-md-03042-JRG, served April 29, 2023
2003	Invalidity Contentions for U.S. Patent No. 8,955,038 Based on U.S. Patent No. 8,065,712 to Cheng et al. ("Cheng"), <i>In re: Taasera Licensing LLC, Patent Litigation</i> , No. 2:22-md-03042-JRG, served April 29, 2023
2004	Declaration of Eric Cole, Ph.D. ("Cole Decl."), dated November 9, 2023 and Exhibit A, Curriculum Vitae of Eric Cole, Ph.D.
2005	Deposition of John Black, taken in <i>Palo Alto Networks, Inc.. v. Taasera Licensing, LLC</i> , IPR2023-00573 on October 3, 2023. ("Black Depo.")

I. INTRODUCTION

The Board should issue a Final Written Decision finding all of the Challenged Claims of the U.S. Patent No. 8,955,038 Patent (Ex. 1001, “the ’038 Patent”) not unpatentable because Petitioner, Palo Alto Networks, Inc. (“Petitioner” or “PAN”), fails to show that U.S. Patent No. 8,065,712 to Cheng *et al.* (“Cheng”) discloses or render obvious the inventions of Claims 1-33.

Petitioner does not assert any grounds of anticipation, but only asserts one ground of obviousness. Cheng does not teach key claim elements of the ’038 Patent’s Challenged Claims, such as “providing a user interface, at a computing system remote from the end point, configured to allow configuration of a plurality of policies,” “maintaining the plurality of policies in a data store on the computing system,” “identifying, from the plurality of policies, a plurality of operating conditions on the endpoint to monitor,” “configuring one or more software agents on the endpoint to monitor the plurality of operating conditions,” “receiving, across a network, at the computing system, status information about the plurality of operating conditions on the endpoint gathered by the one or more software agents,” “determining, by the computing system, a compliance state of the endpoint based on the status information and a plurality of compliance policies in the data store,” and “initiating, by the computing system, based on the compliance state, an action identified in at least one rule in the data store, wherein the action is carried out by a

processor on the endpoint.” Petitioner also improperly conflates (i) “rules” and “policies” and (ii) “operating conditions” and “status information about the plurality of operating conditions,” resulting in nullifying the meaning of one term in each of these pairs.

Patent Owner respectfully submits that Petitioner’s deficient arguments, Patent Owner’s arguments presented herein, and the additional evidence submitted herewith, such as the Declaration of Eric Cole, Ph.D., and the deposition testimony of Dr. John Black, demonstrate that the Challenged Claims are patentable. Accordingly, the Board should issue a Final Written Decision finding all the Challenged Claims of the ’038 Patent not unpatentable.

II. THE ’038 PATENT

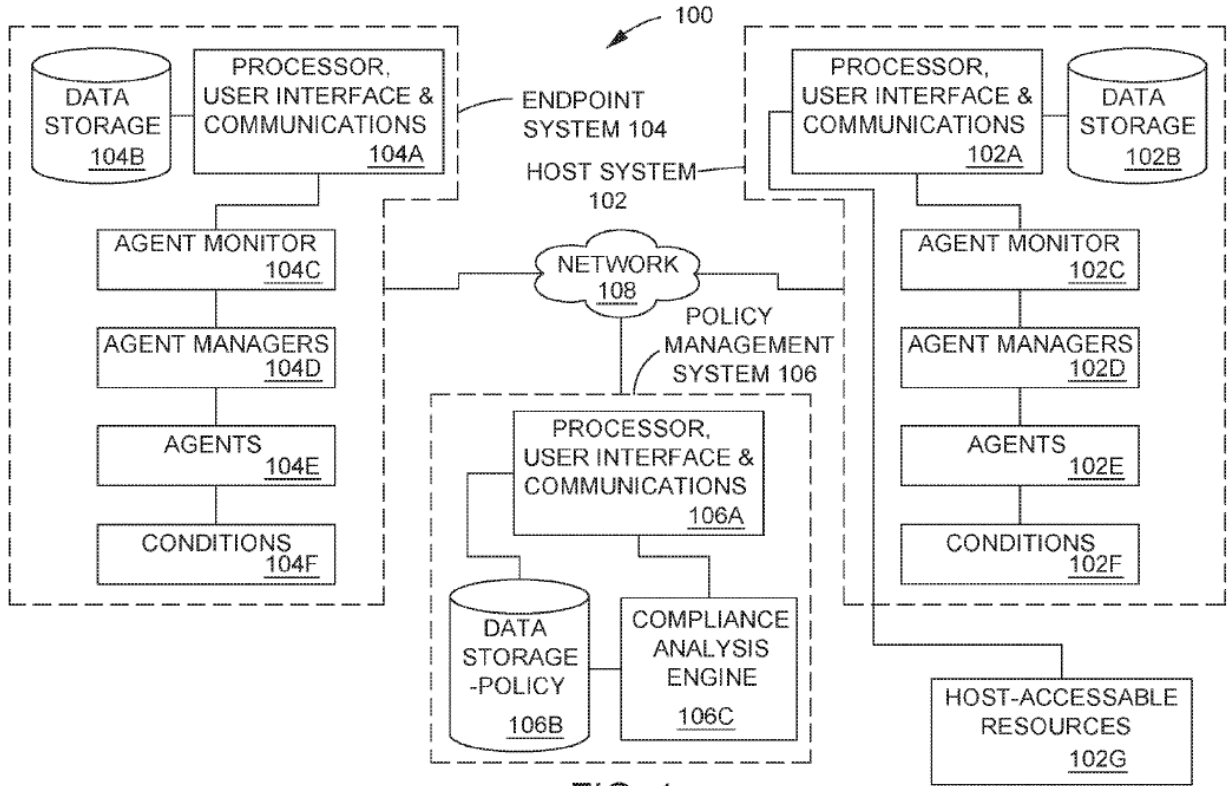
The ’038 Patent discloses methods and systems for fine tuning access control. ’038 Patent, Abstract.

The inventors of the ’038 Patent recognized that large networks of computers lacked adequate access control and compliance facilities. *Id.*, 3:1-32. In particular, prior art systems “lack[ed] the ability to form context-based access control decisions using as decision inputs state information provided by point solutions that are not context aware.” *Id.*, 3:1-5. Moreover, they lacked the “ability to collect endpoint state information from multiple point solutions, collect endpoint state information from the environment itself, . . . and integrate the collected information to form a

higher-level holistic and intelligent view of the overall endpoint state.” *Id.*, 3:5-10. Prior art solutions further “do not provide the ability to define conditional, parameter-based business logic with flexible compliance models. They lack the ability to define via configuration settings parameter values for different users and user groups, and further lack the ability to optionally and selectively notify an end user when access control restrictions are being enforced on their endpoint.” *Id.*, 3:20-26.

To solve these problems, the inventors created a system to flexibly manage corporate security policies. *Id.*, 3:36-38. In particular, the system is “for developing a compliance policy to control the access of an endpoint computing system to a resource in a host computing system.” *Id.*, 4:30-43.

The '038 patent describes a policy management system remote from the endpoint system, which consists of at least a user interface 106A, storage for policies 106B, and a compliance analysis engine 106C to determine the compliance state of the endpoint, while the endpoint system itself consists of at least several agents 104E that extract status information about operating conditions 104F on the endpoint that are identified by the policies stored on management system, as shown below:



Id. at Fig. 1. From the remote policy management system's perspective, there are several steps that occur in order to determine the compliance state of the endpoint and possibly initiate action steps identified in rules, such as remediation for the endpoint if not in compliance, as shown below:

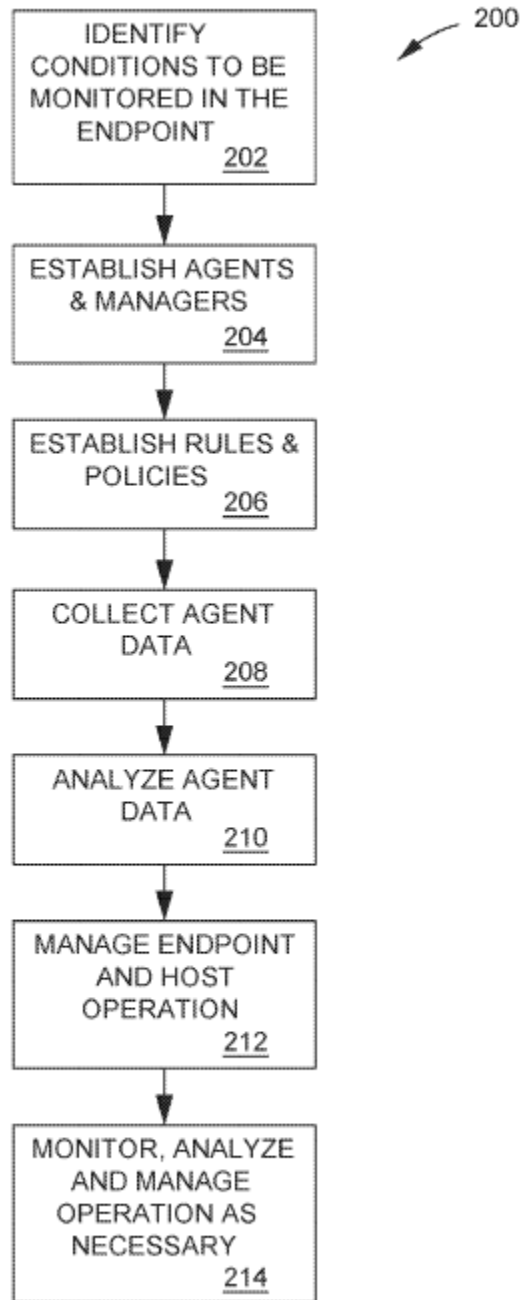


FIG. 2

Id. at Fig. 2.

III. CHENG

Cheng “generally relates to computer network management” and “relates more specifically to method and device for qualifying a client machine to access a network.” Ex. 1004, 1:22-25. Cheng describes rules, policy rules, or sets of policy rules (*i.e.*, policy rule sets) that are used interchangeably throughout its specification and are “typically defined to determine the posture of the client machine being assessed, including but not limited to, presence or absence of certain software, the runtime status of certain software, or whether a software module is up-to-date.” Ex. 1004, 8:30-34.

Cheng describes several formats that its policy rules can take for the aforementioned purpose of identifying standards for protective measures (*i.e.*, qualifications for a client machine to access a network) and identifying ways to find out device information responsive to those standards.

A policy rule set defines the tests that determine whether a client seeking access to the network has implemented particular protective measures.

...

Policy rule sets further set standards for adequacy for the particular protective measures.

...

Rules are typically defined to determine the posture of the client machine being assessed, including but not limited to, presence or absence of certain software, the runtime status of certain software, or whether a software module is up-to-date.

...

A policy rule set may include rules for interrogating a device attempting to access the network through optional client agent software resident on client machines. These policy rules may contain Boolean expressions of individual checks.

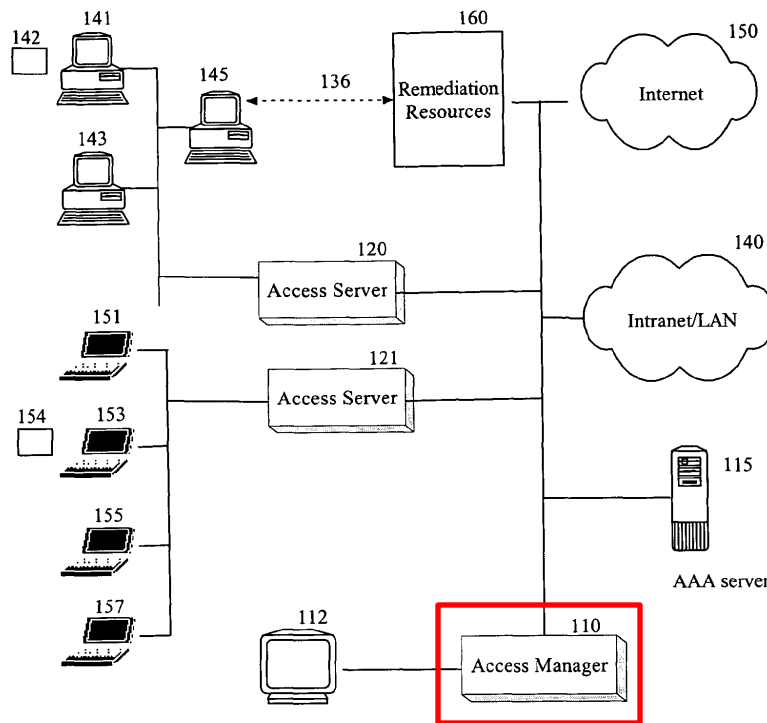
...

Rule sets may be constructed to provide different levels of network access requirements by including rules that have different qualification procedures, and/or including rules that have different standards of adequate protection.

Id., 8:12-59. Cheng uses an access manager to provide the policy rule sets applied by the client agent software and then actually perform the qualification determination.

Access manager **110** acts as a qualification authority. After successful authentication, access manager **110** may respond to a credentialed or authorized client, through an access server **120, 121** with procedures for making a qualification determination. In one embodiment, access manager **110** provides policy rule sets to be applied by the client agent software **142, 154** on client machines that have the client agent software installed.

Id. at 6:55-62. Cheng's representation of the access manager is shown below:



Id. at Fig. 1. The access manager can have a greater level of granularity by comprising a policy server and rules manager.

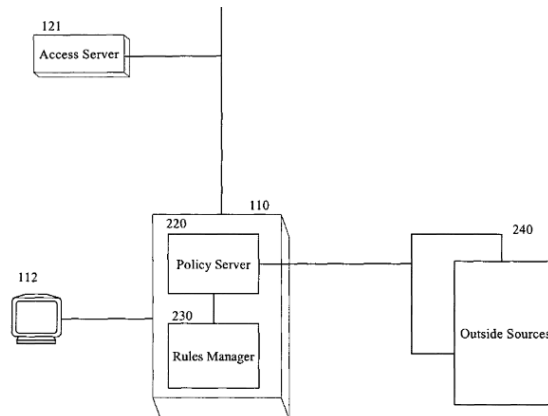


FIG. 2

Id. at Fig. 2. The presence of a separate Policy Server 220 and Rules Manager 230 does not imply, in any way, that Cheng differentiates between policies and rules. As

Cheng describes, the policy server and rules manager are merely functional (*i.e.*, not structural) components, and both are part of the access manager 110 related to management and updating of policy rule sets.

In one embodiment, the access manager **110** may be comprised of multiple functional components. FIG. 2 illustrates one embodiment of an access manager that includes a policy server **220** and a rules manager **230**.

Policy server **220** and rules manager **230** may run on separate servers, or separate server clusters, or they may run together on the same server or server cluster. Although only a single rules manager is shown in FIG. 2, a policy server may provide policy rule sets to many rules managers located in many different networks.

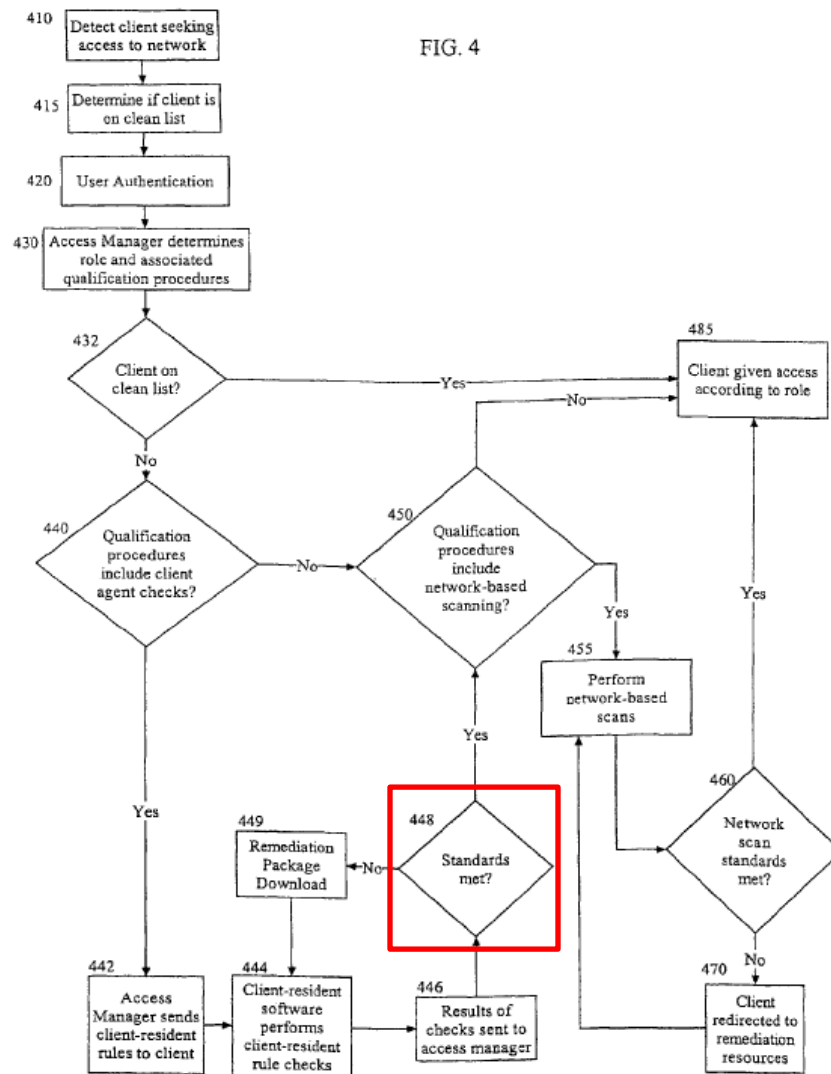
Id. at 7:23-31.

The rules manager **230** receives policy rule sets from the policy server **220**. The policy server may respond to electronic requests for the updated rule sets from the rules managers. Alternatively, the policy server may broadcast the availability of updated rule sets to rule managers. Alternatively, the policy server may respond to subscriptions for updated rule sets by pushing rule sets to subscribing rule managers.

Id. at 9:24-31.

The flow chart below shows that (i) Cheng's client agent software performs various checks 444; (ii) the check results are sent to access managers 446; (iii) if standards identified in policy rules are not met 448 (and 460), the endpoint downloads a remediation package 449; and (iv) if standards are met 448 (and 460),

the client should be given network access 485.

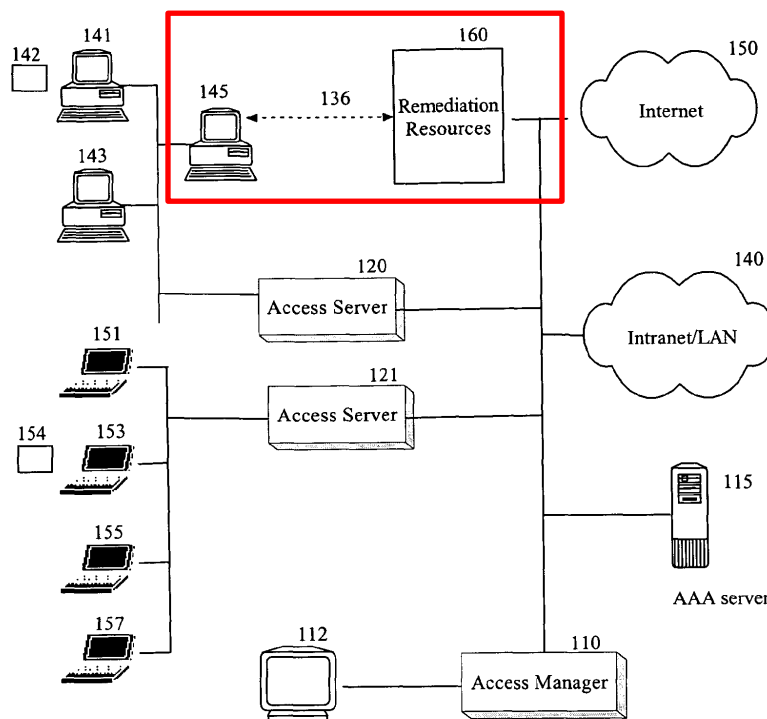


Id. at Fig. 4. Cheng describes that “Information provided by outside sources can be used to construct policy rule sets **and** remediation procedures.” The use of “and” indicates that “policy rule sets” and “remediation procedures” (*i.e.*, actions) are mutually exclusive. *Id.*, 8:12-13. Cheng further clarifies that remediation occurs

exclusively at the endpoint, and is not initiated by the computing system, since the endpoint always has access to the remediation resources via a logical path.

Remediation resources **160** also are indicated in FIG. 1. A logical path **136** between the client machine **145** and remediation resources **160** indicates limited access to resources that may be provided to a client machine.

Id., at 7:1-4.



Id. at Fig. 1.

IV. CLAIM CONSTRUCTION

37 CFR § 42.104 governs the required content of the petition. 37 CFR § 42.104(b)(3) specifically requires the Petitioner to point out “[h]ow the challenged claim is to be construed” and also “[w]here the claim to be construed contains a

means-plus-function or step-plus-function limitation as permitted under 35 USC § 112(f), the construction of the claim must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.” 37 CFR § 42.104(b)(3).

Despite the Parties not proposing any claim constructions during the Institution phase, Patent Owner highlights several terms that Petitioner has apparently construed informally and incorrectly.

- 1) Petitioner improperly construes “rule” and “policy” in the same way. *See infra* Section VII.A.1; Ex. 2004, ¶ 34.
- 2) Petitioner improperly construes “operating conditions” and “status information about the plurality of operating conditions” in the same way. *See infra* Sections VII.A.1 and VII.A.2; Ex. 2004, ¶ 35.

Petitioner’s constructions of these terms run contrary to the general assumption that different terms have different meanings, and therefore should be rejected. *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”); *Neville v. Found. Constructors, Inc.*, 972 F.3d 1350, 1357 (Fed. Cir. 2020) (rejecting argument that “end plate” can be an indistinguishable part of the “protrusion” where claimed protrusion extends outwardly from an end plate; “While

the ‘protrusion’ and ‘end plate’ structures must be connected in some fashion, the use of these ‘two terms in a claim requires that they connote different meanings.’”); *Apple Inc. v. Firstface Co.*, No. 2021-1001, 2021 WL 4156323, at *1–*2 (Fed. Cir. Sept. 13, 2021) (aff’g PTAB non-obviousness; that one claim uses both “perform” and “initiate” reinforces that “performing” (without additional user input) means full performance of the function (without additional user input) not just initiating it).

As a result of Petitioner’s improper construction of these term pairs, Patent Owner requests that the Board provide an express claim construction that (i) “rules” and “policies” are different; and that (ii) “operating conditions” and “status information about the plurality of operating conditions” are different.

V. LEVEL OF ORDINARY SKILL IN THE ART

Patent Owner utilizes Petitioner’s proposed level of skill in the art— a person of ordinary skill in the art (“POSITA”) would have had a bachelor’s degree in computer science, computer engineering, or electrical engineering and at least three years of experience in networking operating systems and cyber security, or a master’s degree in one of the foregoing and at least two years of experience in the aforementioned fields. Pet. at 3; Ex. 2004, ¶ 27. Someone with less or different technical education but more relevant practical experience, or more relevant education but less practical experience, could also be considered a POSITA. *Id.*

VI. REQUIREMENTS UNDER 35 U.S.C. § 103

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Failure to identify the differences between the claimed subject matter and the prior art is fatal to an obviousness challenge. *See Apple, Inc. v. Contentguard Holdings, Inc.*, IPR2015-00355, Paper 9 at 9-10 (P.T.A.B. June 26, 2015).

To arrive at obviousness, the Board must sufficiently explain and support the conclusions that the prior art references disclose all the elements recited in the Challenged Claims and a relevant skilled artisan not only could have made but would have been motivated to combine all the prior art references in the way the patent claims. *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017).

Even if all the claim elements are found across a number of references, an obviousness determination must consider whether a POSITA would have been motivated to combine those references. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1368 (Fed. Cir. 2016); *Los Angeles Biomedical Rsch. Inst. at Harbor-UCLA Med. Ctr. v. Eli Lilly Co.*, 849 F.3d 1049, 1067 (Fed. Cir. 2017).

The Supreme Court explained in *KSR Int'l Co. v. Teleflex Inc.* that “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” 550 U.S. 398, 418 (2007). This combination determination, as supported by an articulated motivation to combine, requires a plausible rationale as to why those prior art references would have worked together. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1335 (Fed. Cir. 2013). Additionally, “knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references.” *Innogenetics, N.V. v. Abbott Lab’ys.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008).

VII. PETITIONER HAS NOT PROVED INVALIDITY OF THE CHALLENGED CLAIMS BY A PREPONDERANCE OF THE EVIDENCE

As set forth below, and in view of both the Petition (“Paper No. 2” or “Pet.”) and the Board’s Institution Decision (“Paper No. 7” or “Inst.”), Petitioner has failed to demonstrate by a preponderance of the evidence that the Challenged Claims are obvious in view of the asserted prior art.

A. Cheng Does Not Render Claims 1, 2, 4, 6, and 11 Obvious

1. Cheng Does Not Render Obvious “*providing a user interface, at a computing system remote from the end point, configured to allow configuration of a plurality of policies,*” “*maintaining the plurality of policies in a data store on the computing system,*” “*identifying, from the plurality of policies, a plurality of operating conditions on the endpoint to monitor,*” and “*configuring one or more software agents on the endpoint to monitor the plurality of operating conditions,*” as Required by Claim 1

Claim 1 recites the limitations: “providing a user interface, at a computing system remote from the end point, configured to allow configuration of a plurality of policies,” “maintaining the plurality of policies in a data store on the computing system,” “identifying, from the plurality of policies, a plurality of operating conditions on the endpoint to monitor,” and “configuring one or more software agents on the endpoint to monitor the plurality of operating conditions.”

Petitioner alleges that the claimed “plurality of policies” is disclosed by Cheng’s *rules* (also called policy rules) that identify operating conditions: “*Rules* are typically defined to determine the posture of the client machine being assessed, including but not limited to, presence or absence of certain software, the runtime status of certain software, or whether a software module is up-to-date.” *See* Pet. at 17 (citing to Ex. 1004, 8:30-34); Ex. 2004, ¶ 36. But Cheng’s rules cannot be the claimed “plurality of policies” because claim 1 of the ’038 Patent clearly distinguishes between policies and rules. *Id.* The claimed “rules” identify actions

while the claimed “plurality of policies” identify “operating conditions on the endpoint to monitor” and, at least in Claim 1, a plurality of policies and rules are not related to each other. *See* ’038 Patent, Claim 1; *Neville*, 972 F.3d at 1357 (rejecting argument that “end plate” can be an indistinguishable part of the “protrusion” where the claimed protrusion extends outwardly from an end plate”: “While the ‘protrusion’ and ‘end plate’ structures must be connected in some fashion, the use of these ‘two terms in a claim requires that they connote different meanings.’”); *id.* While it is true that Claim 11, a dependent claim of the ’038 Patent, allows a policy to include a rule, it does not equate a plurality of policies with rules. *See* ’038 Patent, Claim 11 (“at least one policy that ***includes*** the at least one rule that identifies the action.”) (emphasis added); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed.Cir.2005) (*en banc*) (“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.”); Ex. 2004, ¶ 36. The ’038 Patent specification also delineates the difference between rules and policies. *See, e.g.*, ’038 Patent, 7:18-20 (“Policy management system 106 provides rules ***and*** policies concerning the connection of remote endpoint systems 104 to host system 102.) (emphasis added), 15:29-36 (“Establish Rules & Policies;” “there are next established rules ***and*** policies for controlling the access to local resources on the endpoint system.) (emphasis added); Ex. 2004, ¶ 36.

Even if a POSITA reading Cheng assumes, according to Petitioner, that a “plurality of policies” is disclosed by Cheng’s “rules,” a POSITA would then conclude that Claim 11’s limitation that “at least one policy that includes the at least one rule” is not met because a policy cannot include a rule if it is the rule. Ex. 2004, ¶ 37. As Petitioner’s expert describes, “[u]sually in computer science a rule is formed as an if-then. A rule says, if this condition is met, then this action is taken. That’s ... sort of the common understanding.” Ex. 2005 (Deposition of Dr. Black), at 21:18-23; Ex. 2004, ¶ 37. This “common understanding” is reflected in the claims of the ’038 Patent, but not in Cheng, where there is only one concept of “policy rules” used “interchangeably” with other equivalent terms throughout Cheng’s specification. Ex. 2004, ¶ 37. Petitioner’s expert Dr. Black agrees that Cheng only describes one concept and does not differentiate between policies and rules. Ex. 2005, 61:24-62:17 (“I think [Cheng] uses ‘policy,’ I think it uses ‘rule,’ I think it uses ‘policy rules,’ and I think it uses ‘policy rule set,’ and I don’t recall any basis for differentiating. I think they’re just using those terms interchangeably.”); 63:23-24 (“I don’t know that, in Cheng, the word ‘policy’ necessarily is different from ‘policy rules.’); Ex. 2004, ¶ 37.

As a result, if Cheng’s rules or policy rules disclose the claimed “plurality of policies,” it cannot disclose the claimed “rules.” Ex. 2004, ¶ 38. As explained in further detail below, Cheng also does not disclose *rules that identify actions*, and

for this additional reason, Cheng cannot render Claim 1 obvious. *See infra* Section VII.A.4; *id.*

Claim 1 is also not obvious because Cheng does not disclose the claimed “operating conditions” identified from the plurality of policies. Petitioner incorrectly asserts that “Cheng discloses [] a plurality of operating conditions on the endpoint (i.e., *the assessed posture of the client machine, as determined based on the standards for adequacy for particular protective measures that are met*, such as a standard of adequate protection for anti-virus protection, operating system update installation, worms, spyware, malware and/or adware on the client machine).” Pet. at 17-18 (emphasis added); Ex. 2004, ¶ 39. But the claimed operating conditions cannot be the assessed posture of the client machine when an assessment of the endpoint (or the “determining” claim limitation) has not even occurred yet. *Id.* Claim 1 is clear that the compliance state of the endpoint (*e.g.*, any assessed posture of the endpoint) is “determin[ed], by the computing system, ... based on the status information [about the plurality of operating conditions] and a plurality of compliance policies in the data store.” ’038 Patent, Claim 1; Ex. 2004, ¶ 39. Put simply, the compliance state or any assessed posture of the client machine is determined based, in part, on the status information about the plurality of operating conditions, and cannot be the operating conditions itself. *Id.* In view of Petitioner’s failure to show that Cheng discloses, teaches, or motivates the claimed “plurality of

operating conditions,” Cheng cannot render Claim 1 obvious.

2. Cheng Does Not Render Obvious “receiving, across a network, at the computing system, status information about the plurality of operating conditions on the endpoint gathered by the one or more software agents,” as Required by Claim 1

Claim 1 recites the limitation “receiving, across a network, at the computing system, status information about the plurality of operating conditions on the endpoint gathered by the one or more software agents.”

Since Petitioner fails to show how Cheng discloses, teaches, or suggests “identifying, from the plurality of policies, a plurality of operating conditions,” it therefore cannot disclose, teach, or suggest “receiving...status information about the plurality of operating conditions.” *See supra* Section VII.A.1; Ex. 2004, ¶ 40. For this reason alone, Claim 1 is not rendered obvious by Cheng.

Petitioner also argues that Cheng’s “results or sum evaluation of the checks” disclose the claimed “status information about the plurality of operating conditions.” Pet. at 20; Ex. 2004, ¶ 41. This position does not make sense in view of Petitioner’s previous allegation that “operating conditions” are “*the assessed posture of the client machine*” (Pet. at 17-18) (emphasis added) because Cheng’s “results or sum evaluation of the checks” *are* the “assessed posture of the client machine.” Ex. 2004, ¶ 41. Cheng explicitly says that checks *are* posture evaluation elements or at the very least are “elements” of the “assessed posture of the client machine.”

Checks are atomic posture evaluation elements typically implemented through registry checks (presence/absence of registry keys, values of keys, etc.), file attribute checks, application status checks, service status checks, etc.

Ex. 1004, 8:39-42; Ex. 2004, ¶ 41. This conflation is emblematic of Petitioner's arguments with respect to this claim limitation. Petitioner's own expert, Dr. Black, confirms that Petitioner failed to differentiate between the two terms "status information" and "operating conditions" by asserting that "status information is more or less synonymous with operating condition":

Q. Yeah, I mean, just to clarify that more, you're saying the -- in the example you gave, are you saying that the operation condition, you know, is that [antivirus] version number, for example?

A. All the measurements taken by the client software I would call, you know, operating conditions in this context.

Q. And each of the measurements would be an operating condition -- an operating condition?

A. I think that's fair."

Q. And just to really clarify that, so in the example you gave, the [antivirus] version is the operating condition; The status information is whether that version meets a threshold. Is that right?

...

A. No, I would say status information is also more or less synonymous with operating condition. The status information includes the measurements taken by the client endpoint.

Ex. 2005, 54:4-22; Ex. 2004, ¶ 41. As with the difference between "rule" and

“policy” described above, Petitioner’s constructions of “operating conditions” and “status information about the plurality of operating conditions” run contrary to the general assumption that different terms have different meanings. *CAE Screenplates*, 224 F.3d at 1317 (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”).

Petitioner’s expert acknowledges that Cheng’s client software (*i.e.*, software agents) only take measurements instead of actively derive status information from operating conditions, as the claim requires. *See* Ex. 2005, 45:25-46:9 (“I wouldn’t characterize the client software as determining the compliance state, because, as I said a moment ago, Cheng describes situations where it may be possible to determine the compliance state, but also situations where the client software really is kind of just a dumb service that's saying, I took some measurements, here they are, and it doesn’t really try and ascertain what the ultimate determination is going to be based on those measurements.”); Ex. 2004, ¶ 42. This “dumb service” of Cheng is exactly what the ’038 patent describes as inadequate prior art:

Today's access control solutions still lack significant functions and capabilities. As one example, they lack the ability to form context-based access control decisions ***using as decision inputs state information provided by point solutions that are not context aware.***

'038 Patent, 3:1-5; Ex. 2004, ¶ 42. Like the prior art discussed in the '038 Patent specification, Cheng's client agents are "point solutions that are not context aware" and do not pull status information about operating conditions, but, at most, only the operation conditions themselves. *Id.* This distinction is made even clearer in the '038 Patent specification, which shows that software agents must be context aware because status information is another level of data "subsequent to" the plurality of policies identifying operation conditions:

Subsequent to identifying the various conditions to be monitored within endpoint system **104** (step **202**), the various 55 agents **104E** and agent managers **104D** and agent monitor(s) **104C** are identified and configured for monitoring those various conditions (step **204**). For example an agent manager **104D** may be configured to query a vendor-specific API exposed by a third party antivirus agent, may be configured to 60 query an operating system service periodically to determine if the endpoint has an active network interface and if so, the IP address of that interface, etc.

'038 Patent, 14:53-67; Ex. 2004, ¶ 42. Petitioner's ignorance of the difference between the claimed "status information" and "operating conditions" cannot render obvious this claim limitation.

3. Cheng Does Not Render Obvious “*determining, by the computing system, a compliance state of the endpoint based on the status information and a plurality of compliance policies in the data store*” as Required by Claim 1

Claim 1 recites the limitation “determining, by the computing system, a compliance state of the endpoint based on the status information and a plurality of compliance policies in the data store.” By its plain language, this limitation requires the computing system to determine a compliance state based on (i) received status information about the plurality of operating conditions; and (ii) a plurality of (*i.e.*, at least two) compliance policies in the data store.

Since Petitioner fails to show how Cheng discloses, teaches, or suggests a “plurality of policies,” it therefore cannot disclose, teach, or suggest “determining, by the computing system, a compliance state of the endpoint based on ... a plurality of compliance policies in the data store.” *See supra* Section VII.A.1; Ex. 2004, ¶ 43. For this reason alone, Claim 1 is not rendered obvious by Cheng.

Since Petitioner fails to show how Cheng discloses, teaches, or suggests “receiving, across a network, at the computing system, status information about the plurality of operating conditions on the endpoint gathered by the one or more software agents,” it therefore cannot disclose, teach, or suggest “determining, by the computing system, a compliance state of the endpoint based on the status information.” *See supra* Section VII.A.2; Ex. 2004, ¶ 44. For this reason alone,

Claim 1 is not rendered obvious by Cheng.

4. Cheng Does Not Render Obvious “*initiating, by the computing system, based on the compliance state, an action identified in at least one rule in the data store, wherein the action is carried out by a processor on the endpoint*” as Required by Claim 1

Claim 1 recites the limitation “initiating, by the computing system, based on the compliance state, an action identified in at least one rule in the data store, wherein the action is carried out by a processor on the endpoint.”

Since Petitioner fails to show how Cheng discloses, teaches, or suggests “rules” generally, it therefore cannot disclose, teach, or suggest “initiating, by the computing system, based on the compliance state, an action identified in at least one rule in the data store.” *See supra* Section VII.A.1; Ex. 2004, ¶ 45. For this reason alone, Claim 1 is not rendered obvious by Cheng.

The rules described in Cheng are inapposite because Cheng’s rules either do not identify actions or only identify actions that not “initiat[ed]...based on the compliance state” in contradiction to the claim language. Ex. 2004, ¶ 46. For example, Cheng describes that “Information provided by outside sources can be used to construct policy rule sets *and* remediation procedures.” *Id.* The use of “and” indicates that “policy rule sets” and “remediation procedures” (*i.e.*, actions) are mutually exclusive. Ex. 1004, 8:12-13; *id.* Similarly, Cheng describes several formats that rules can take and none of them identify actions:

A policy rule set defines the tests that determine whether a client seeking access to the network has implemented particular protective measures.

...

Policy rule sets further set standards for adequacy for the particular protective measures.

...

Rules are typically defined to determine the posture of the client machine being assessed, including but not limited to, presence or absence of certain software, the runtime status of certain software, or whether a software module is up-to-date.

...

A policy rule set may include rules for interrogating a device attempting to access the network through optional client agent software resident on client machines. These policy rules may contain Boolean expressions of individual checks.

...

Rule sets may be constructed to provide different levels of network access requirements by including rules that have different qualification procedures, and/or including rules that have different standards of adequate protection.

Ex. 1004, 8:12-59; Ex. 2004, ¶ 46. In short, Cheng's rules identify standards for protective measures and ways to find out device information responsive to those standards. These are not actions, such as remediation. Ex. 2004, ¶ 46.

Petitioner is altogether silent regarding the claimed "at least one rule in the data store." Pet. at 24-26; Ex. 2004, ¶ 47. Petitioner's expert confirms that both he and Petitioner ignored this aspect of the claim language and only discussed "data stores" in the context of data stores for the plurality of policies:

Q. Do you opine about the claim rule in the data store in

your declaration here in this section?

MR. LIN: Objection, form.

A. If you'll give me a moment just to read through it.

[Document review.]

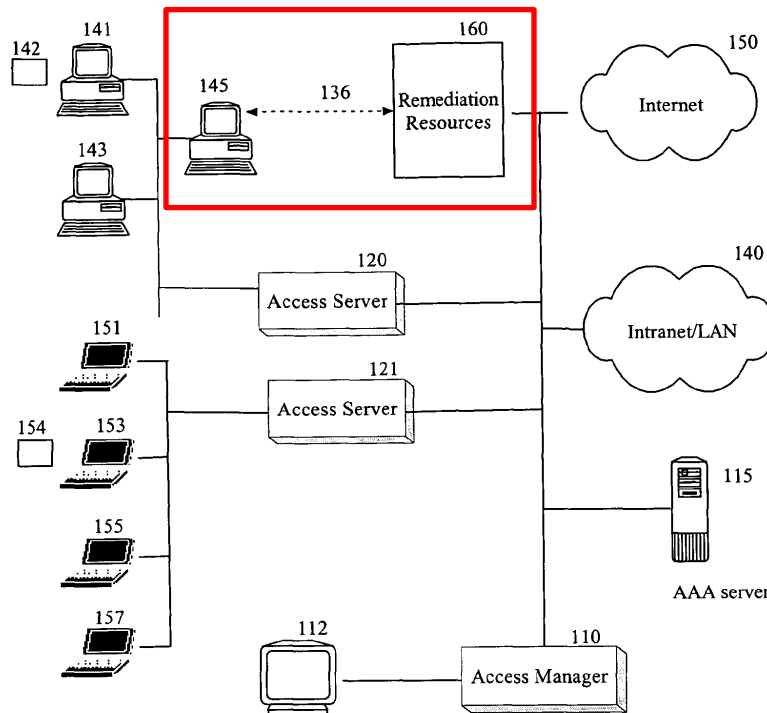
A. So I do reference the policy rule set, which is the rules that are in the data store. I don't know that I verbatim say the words "data store" in these paragraphs. I think I say it elsewhere in the report.

Ex. 2005, 56:15-25; Ex. 2004, ¶ 47.

This claim limitation is also not rendered obvious by Cheng because Cheng does not disclose, teach, or suggest “*initiating, by the computing system*, based on the compliance state, an action.” Ex. 2004, ¶ 48. As above, the example action provided by Petitioner is “remediation.” *Id.* Yet, Cheng is clear that remediation occurs exclusively at the endpoint, and not initiated by the computing system.

Remediation resources **160** also are indicated in FIG. **1**. A logical path **136** between the client machine **145** and remediation resources **160** indicates limited access to resources that may be provided to a client machine.

Ex. 1004, at 7:1-4; Ex. 2004, ¶ 48.



Id. at Fig. 1; Ex. 2004, ¶ 48. Referring to item 145 in Fig. 1 of Cheng above, Petitioner's expert confirms that the endpoint exclusively initiates and carries out the action.

Cheng describes various possible actions that can be taken. ...[B]asically ***the endpoint is put on notice*** that it needs to bring its operating conditions or state up to snuff before it will be allowed full access to the network.

Q. And what exactly -- what component in Cheng brings the endpoint up to snuff?

...

A. Well, in the example that I was talking about, like if we look at Figure 1 of Cheng?

...

A. ***The endpoint depicted here, 145***, there is a dotted, double-headed arrow to remediation resources, indicating that this computer does have access to remediation resources. ***It can download the latest patches and bring***

itself to a better security state, at which point it can produce new measurements that will then be evaluated by access manager 110, and hopefully, for the endpoint's sake, be in compliance, and then receive full access to the access servers for everything.

Q. And the remediation would occur on the endpoint itself, correct?

A. Yeah, the interaction with 160. But how that -- you know, *the repairing and patching and updating, that would occur on the endpoint*.

Ex. 2005, 65:23-67:9 (emphasis added); Ex. 2004, ¶ 48. Because Cheng does not disclose, teach, or suggest any rules generally, rules that identify actions, a rules data store, or initiating actions on the computing system, Petitioner fails to show how Cheng renders obvious Claim 1.

5. Cheng Does Not Render Obvious “*wherein the action comprises controlling access of the endpoint to computing resources*” as Required by Claim 2

Claim 2 recites the limitation “wherein the action comprises controlling access of the endpoint to computing resources.” Since Petitioner fails to show how Cheng discloses, teaches, or suggests “an action identified in at least one rule in the data store,” it therefore cannot disclose, teach, or suggest “wherein the action comprises controlling access of the endpoint to computing resources.” *See supra* Section VII.A.4; Ex. 2004, ¶ 49. For this reason alone, Claim 1 is not rendered obvious by Cheng.

6. Cheng Does Not Render Obvious “*requesting, at the computing system, the status information on a periodic basis*” as Required by Claim 4

Claim 4 recites the limitation “requesting, at the computing system, the status information on a periodic basis.”

Since Petitioner fails to show how Cheng discloses, teaches, or suggests “receiving, across a network, at the computing system, status information about the plurality of operating conditions on the endpoint gathered by the one or more software agents,” it therefore cannot disclose, teach, or suggest “requesting, at the computing system, the status information on a periodic basis.” *See supra* Section VII.A.2.; Ex. 2004, ¶ 50. For this reason alone, Claim 4 is not rendered obvious by Cheng.

Cheng does not show receiving status information on a periodic basis. Ex. 2004, ¶ 51. Petitioner’s only cited portion of Cheng relates to receiving periodic information that has nothing to do with the claimed status information. For example, that portion of Cheng describes that “[m]ost or all the *information needed regarding protective measures* can be automatically retrieved by the policy server *from the outside sources*. The policy server regularly receives up-to-date information from outside sources. The policy server may pull the information on a periodic or event-driven basis.” Ex. 1004, 7:58-8:3; Ex. 2004, ¶ 51. Petitioner’s expert confirms that the pulled information from Petitioner’s citation refers only to protective measures

that are received from outside sources:

Q. Thank you. So what you just read refers to information from outside sources; is that correct?

...

A. This -- yeah, information needed regarding protective measures, it says can be retrieved from the outside resources 240.

Q. Okay. And as you just mentioned, it's fair -- is it fair to say that this information from outside sources is in regards to protective measures?

A. Information needed regarding protective measures is exactly what Cheng says in that passage, yes.

Ex. 2005, 70:24-72:4; Ex. 2004, ¶ 51. Protective measures from outside sources is not relevant to the claimed “status information on a periodic basis.” *Id.*

Petitioner’s motivation to combine Cheng with the knowledge of a POSITA at the time of invention is also not persuasive because Petitioner simplistically suggests that the inquiry is whether “[r]equesting status information on a periodic basis was well-known as of the priority date of the ’038 patent.” Pet. at 29; Ex. 2004, ¶ 52. Petitioner is not correct because it strips the claimed term, “status information” of its meaning within the claim as status information about the plurality of operating conditions. *Id.* Without that meaning, Petitioner merely suggests that because a POSITA would have known to send any information periodically, there is motivation combine. Pet. at 29-30; Ex. 2004, ¶ 52. However, as described above in

Section VII.A.2, the '038 Patent describes prior art systems where “status information” is not context aware. Ex. 2004, ¶ 52. These are the only systems a POSITA would have been aware of at the time of the '038 Patent's invention. Section VII.A.2 (citing '038 Patent, 3:1-5); Ex. 2004, ¶ 52.

Because the only portion of Cheng that describes periodicity is inapposite and there is no motivation to combine Cheng with the knowledge of a POSITA at the time of invention, Petitioner fails to render obvious Claim 4.

7. Cheng Does Not Render Obvious “*wherein the one or more software agents comprise at least one service provided by the operating system of the endpoint,*” as Required by Claim 6 or “*wherein the one or more software agents comprise at least one application running on the endpoint,*” as Required by Claim 7

Claim 6 recites the limitation “wherein the one or more software agents comprise at least one service provided by the operating system of the endpoint” and Claim 7 recites “wherein the one or more software agents comprise at least one application running on the endpoint.” Since Petitioner fails to show how Cheng discloses, teaches, or suggests “configuring one or more software agents on the endpoint to monitor the plurality of operating conditions,” it therefore cannot disclose, teach, or suggest “wherein the one or more software agents comprise at least one service provided by the operating system of the endpoint” or “wherein the one or more software agents comprise at least one application running on the

endpoint.” *See supra* Section VII.A.1; Ex. 2004, ¶ 53. For this reason alone, Claims 6 and 7 are not rendered obvious by Cheng.

8. Cheng Does Not Render Obvious “*wherein the conditions comprise at least one hardware condition,*” as Required by Claim 8 or “*wherein the conditions comprise at least one software condition,*” as Required by Claim 9

Claim 8 recites the limitation “wherein the conditions comprise at least one hardware condition” and Claim 9 recites the limitation “wherein the conditions comprise at least one software condition.” Since Petitioner fails to show how Cheng discloses, teaches, or suggests “operating conditions,” it therefore cannot disclose, teach, or suggest “at least one hardware condition” or “at least one software condition.” *See supra* Sections VII.A.1. and VII.A.2; Ex. 2004, ¶ 54. For this reason alone, Claims 8 and 9 are not rendered obvious by Cheng.

9. Cheng Does Not Render Obvious “*wherein the plurality of policies includes at least one policy that includes the at least one rule that identifies the action,*” as Required by Claim 11

Claim 11 recites the limitation “wherein the plurality of policies includes at least one policy that includes the at least one rule that identifies the action.” Since Petitioner fails to show how Cheng discloses, teaches, or suggests “rules” generally or “an action identified in at least one rule in the data store,” it therefore cannot disclose, teach, or suggest “the plurality of policies includes at least one policy that includes the at least one rule that identifies the action.” *See supra* Sections VII.A.1

and VII.A.4; Ex. 2004, ¶ 55. Specifically, Cheng’s “rules” cannot be the claimed plurality of policies and rules at the same time because Cheng’s rule cannot include itself, and Cheng does not show that its rules identify actions. *Id.* Therefore, Claim 11 is not rendered obvious by Cheng.

B. Cheng Does Not Render Claims 2, 3, 5, and 10 Obvious

Claims 2, 3, 5, and 10 are dependent upon Claim 1, and are therefore not obvious over Cheng for at least the same reasons as Claim 1. Ex. 2004, ¶ 56.

C. Cheng Does Not Render Claims 12-33 Obvious

Claims 12-22 and 13-33 are respectively “non-transitory computer readable medium containing computer instructions” and “system” analogues to the method claims of Claims 1-11. Ex. 2004, ¶ 57. Therefore, Claims 12-22 and Claims 13-33 are each, respectively, not obvious over Cheng for at least the same reasons as Claims 1-11. Ex. 2004, ¶ 57.

VIII. CONCLUSION

Petitioner’s combinations fail to render obvious any Challenged Claim. The Board should issue a Final Written Decision finding the Challenged Claims not unpatentable.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S RESPONSE specified in 37 C.F.R. § 42.24 has 6,807 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word for Office 365.

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CERTIFICATE OF SERVICE

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