

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.
Petitioner,

v.

UMBRA TECHNOLOGIES LTD.
Patent Owner.

Case No. IPR2024-00270

U.S. Patent No. 11,108,595

PATENT OWNER'S RESPONSE

Under 37 C.F.R. § 42.120

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Exhibit	Description
2001	Dr. A.L. Narasimha Reddy Deposition Transcript, dated Nov. 13, 2024
2002	Declaration of Dr. Micah Beck in Support of Patent Owner's Response

I. INTRODUCTION

Patent Owner UMBRA Technologies Ltd. (“Patent Owner”) hereby Responds to Petitioner Cisco Systems, Inc.’s (“Petitioner”) Petition for *Inter Partes* Review seeking to find the Challenged Claims of U.S. Patent No. 11,108,595 (“’595 patent”) invalid. For the reasons stated below, Patent Owner respectfully asks that the Board ***reject*** the Petition’s assertions that the ’595 patent’s Challenged Claims 15-20 are unpatentable.

The primary reference in the challenge of claims 15-20, Hankins, fails to teach or suggest the claimed elements reciting “receiving requests for,” “dynamically ordering,” and “transmitting ordered lists of access point servers to endpoint devices.” The Petition maps Hankins’ “tunnel servers” to the claimed “access point servers” but then never demonstrates any claimed “list” activities related to those tunnel servers. To attempt to cover for this deficiency, the Petition impermissibly uses the ’595 inventive teachings themselves as a stand-in for missing prior art teachings.

With regard to the dynamic ordering of an access server list based on records associated with the endpoint device needing to connect to the overlay network, Petitioner is faced with the difficulty of having a primary reference (“Hankins”) that doesn’t generate such lists at all. Petitioner offers no reference where endpoint tunnel connections to a virtual overlay network are managed using lists of access point servers, as is required by the challenged claims. Petitioner thus resorts to the

use of non-analogous art (“Kommula”) in the Domain Name Service (“DNS”) server field. As is well-known, DNS servers have nothing to do with transport networks at all, their sole function being to merely provide IP addresses for application servers identified by a Uniform Resource Locator. (Ex. 2002, Expert Declaration in Support of Patent Owner’s Response, at ¶ 31.) Petitioner attempts to shoehorn an imagined DNS-like “service” into a reference describing an intermediate transport portion of a private network which never suggests a need for such a service. Moreover, the resort to non-analogous DNS art (i.e., outside of transport networks entirely) in order to make such an argument indicates a lack of any reasonable motivation to combine.

Finally, the Board should take note that large portions of the Petition are factually unsupported, to compensate for Hankins’ failure to disclose major claim limitations. These unsupported factual assertions should not only be disregarded, but also indicate how fatally weak Petitioner’s grounds for invalidity are.

II. TECHNOLOGY BACKGROUND

Claims 15-20 describe a novel network system for managing a global virtual network composed of access point servers (“SRV_APs”) connected to endpoint devices (“EPDs”) via tunnels, as directed by control servers (“SRV_CNTRL”).¹

FIG. 27 of the ’595 Patent is illustrative of an embodiment:

¹ Ex. 1001, 2:43-46 (“Having a secure tunnel between an end point device (EPD) and an access point server (SRV_AP) linked to the broader GVN global network offers many advantages.”); 7:31-38 (“A GVN is a combination of a hardware (HW) End Point Device (EPD) with installed software (SW), databases (DB) and other

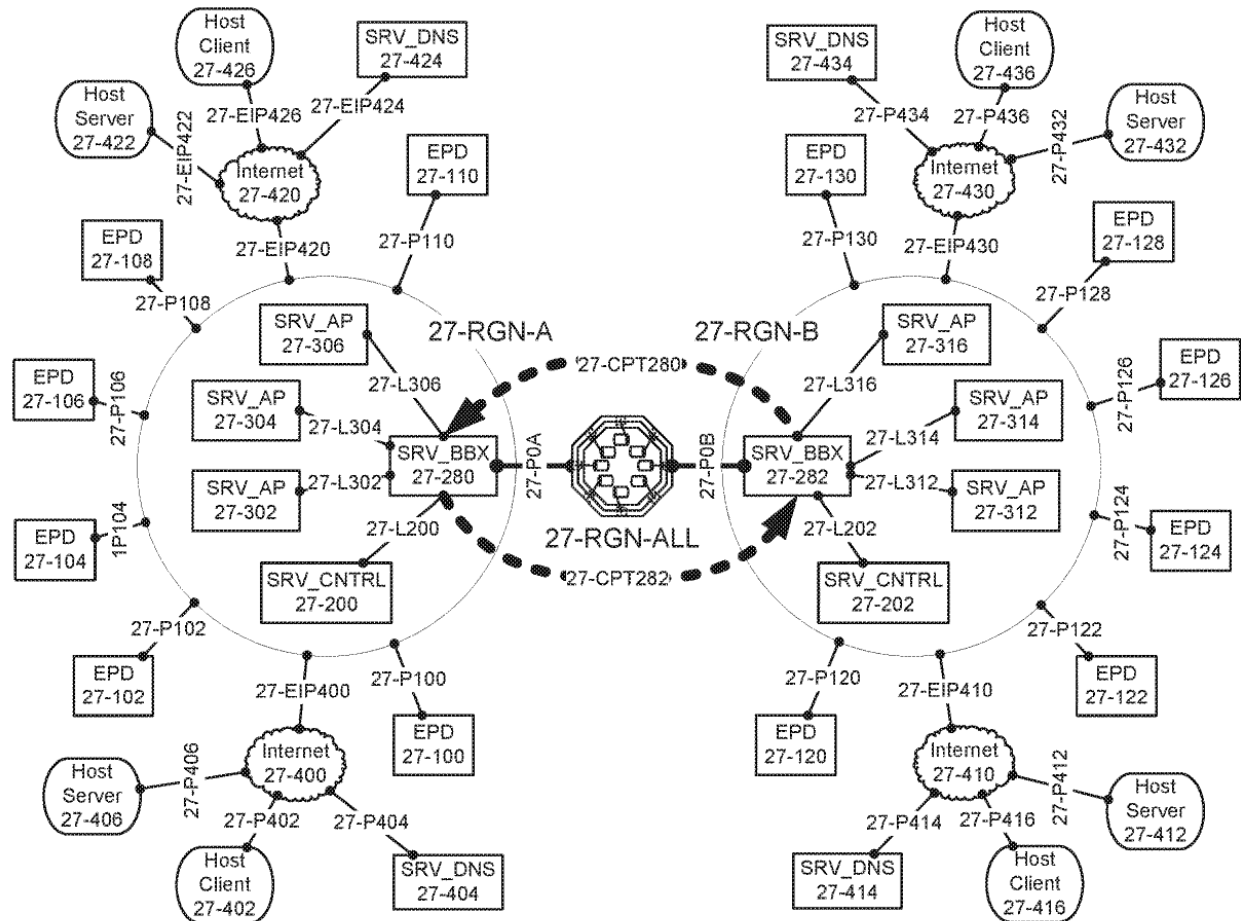


FIG. 27

(Ex. 1001 at Fig. 27.)

The inventors of the '595 Patent appreciated that, with numerous EPDs needing to access the overlay transport network, and with multiple potential SRV_APs providing such access, a novel solution was needed to optimize the transport network. (Ex. 1001 at 2:30-36.) A system utilizing the claimed solution will satisfy this need by supplying each EPD with a dynamically customized list of SRV_APs for use to tunnel into the overlay network, thus controlling not only the

automated modules of the GVN system . . . which connect the EPD to distributed infrastructure devices such as access point server (SRV_AP) and central server (SRV_CNTRL) within the GVN.”)

first-choice connection of each EPD but also its second, third, etc. failover choices. (See Ex. 2002 at ¶ 31; see also Ex. 1001 at claim 15.) This not only provides an optimization of the “sunny weather” operation of the overlay network, but also preemptively directs the EPDs as to what to do next when their primary tunnel connection goes awry, such that network disruptions may quickly and automatically repair themselves in a way that avoids follow-on issues. (See Ex. 2002 at ¶ 31.) This and many other advantages are described in the specification, and are largely repeated at pages 8-10 of the Petition. (See Ex. 1001 at 11:2-26; 14:46-48 and 15:43-67.)

III. APPLICABLE LEGAL PRINCIPLES

A patent is invalid for anticipation under 35 U.S.C. § 102 only “if a single prior art reference discloses *each and every*² limitation of the claimed invention.” *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citing *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987)). A prior art reference may anticipate without disclosing a feature of a claimed invention only when that missing characteristic is necessarily present—or inherent—in the single reference. *Id.* at 1377.

To make a *prima facie* showing of obviousness under 35 U.S.C. § 103, the Petition must, among other requirements, fulfill the requirements set forth in

² Unless otherwise indicated, all emphasis in this brief is added.

Graham v. John Deere Co., 383 U.S. 1 (1966), including demonstrating that the cited references disclose each element of a challenged claim. *In re Magnum Oil Tools Int'l.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016).

Petitioner also has the burden to show that there would have been sufficient motivation to combine the asserted prior art, and that the proposed combination would render the patented claims obvious. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Even if individual modifications or choices were obvious, a petition must explain why making all of the changes at once would have been obvious at the time of the patented invention. *Apple Inc. v. Contentguard Holdings, Inc.*, IPR2015-00442, Paper 9 at 16-17.

The Federal Circuit has found that, even for an obviousness challenge based on a single reference in view of the knowledge and skill of a person of ordinary skill in the art, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination. *In re Stepan Co.*, 868 F.3d 1342, 1345-46 (Fed. Cir. 2017). In other words, when a gap in a single prior art reference requires filling with, for example, the knowledge of one of ordinary skill, there must be a further showing that the skilled artisan would arrive at the claimed invention without anything other than the artisan's skill and the teachings of the reference.

Hindsight analysis is inappropriate; obviousness must be measured "at the time the invention was made." *Ortho-McNeil Pharm. v. Mylan Labs*, 520 F.3d 1358,

1364 (Fed. Cir. 2008) (emphasis original). The petition must demonstrate a rationale to combine prior art references without relying on the patent disclosure itself. *Apple Inc. v. Contentguard Holds.*, IPR2015-00442, Paper 9 at 15, 17 (P.T.A.B. July 13, 2015); *see also P&G v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 995 (Fed. Cir. 2009). The petitioner must not use the patent as a roadmap. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007); *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011).

IV. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner offers the following credentials for a person of ordinary skill in the relevant art (“POSA”) at the time of the priority date of the ’595 patent:

familiar with using cloud based resources offered on top of regular Internet connections to provide virtual networks and the formation of tunnels and the associated protocols as demonstrated by the prior art references and description in the State of the Art below. . . . A POSITA would have gained knowledge of these concepts through a mixture of training and work experience, such as by having a Bachelor’s degree in computer science and two years of experience; or by obtaining a Master’s degree in computer science, but having only one year of experience; or by having no formal education but experience in storage systems of at least four years.

(Petition at 14-15.) Patent Owner does not dispute this characterization of a POSA.

V. PETITIONER HAS FAILED TO SHOW THAT THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Petitioner Improperly Conflates a Non-Claimed General Request for “*Services*” with the Claimed and Distinct Specific Request for “*a List of Available Servers*”

At a minimum, the Petition fails with respect to claim element “[15.3]”³ (as labeled by Petitioner), for which the Petition relies solely on the teachings of Hankins. (Pet. at 45-47.) Petitioner makes the incorrect assertion that the ’595 patent’s claimed “*request for a list of available servers ... including the access point server,*” (Ex. 1001 at claim 15), is the same as the unspecified disclosure of a “*request [for] services*” of “another logical broadcast domain” as recited in Hankins, (Pet. at 46, citing Ex. 1005 at 12:9-16). There is no factual or technical basis in the record to conclude that the claimed “request for a list of available servers ... including the access point server” is the same as the Hankins disclosure of a “request [for] services available via network devices” from one logical broadcast domain to another.⁴ This conflation error is fatal to the Petition.

³ Element [15.3] recites: “wherein the control server is configured to: receive a request for a list of available servers from a first endpoint device among the one or more endpoint devices, the list of available servers including the access point server;” (Ex. 1001, 34:13-16.)

⁴ The Petition paraphrases (rather than quote) Hankins, which actually recites: “use of a network device, for example, may allow network devices communicating via their respective logical broadcast domains, for example, to discover and/or request services available via network devices of another logical broadcast domain while still communicating via their respective logical broadcast domains” (Ex. 1005 at 12:9-16.)

The Petition’s reliance on Hankins fails in the context of the claimed “*list*”, “*request*”, “*server*”, and “*endpoint device*”. Petitioner does not even attempt to argue that any of the three uses of the word “*list*” in Hankins is relevant to the claimed “*list*”. (See, e.g., Ex. 1005 at 3:3; 35:31; 37:66.) Petitioner fails to point to any disclosure in Hankins to suggest that “request[ing] services” from one broadcast domain to another yields “a list of available servers including the access point server.” (Cf. Pet. at 46 (citing Ex. 1005 at 12:9-16) with Ex. 1001, claim 15.) Instead, the Petition merely attempts to make a flawed comparison to a disclosure in Hankins, wherein a gateway, e.g., 311, (not necessarily the claimed “endpoint device”) “*may request services available*” from another gateway, e.g. 321, at “another logical broadcast domain,” including (for example) tunnel servers, e.g., 360 and 370. (Pet. at 45-47 (citing, e.g., Ex. 1005 12:9-16; 25:45-55)). The tunnel servers—which, by Petitioner’s own admission, lie in the “mobility domain” (i.e., transport network) *between* broadcast domains—cannot be available “services” in a broadcast domain *behind* a gateway server. (Pet. 15.) Petitioner’s argument is nonsensical. There is no logical basis to suggest that Hankins’ gateways (again, not necessarily the claimed “endpoint device”) would make a request for a “list” of anything, let alone a list of available servers (such as available tunnel servers) that will be dynamically ordered and transmitted to a requesting gateway. In fact, the gateways that Petitioner points to in Hankins for this claim element—“gateway 311” and “gateway 321”—do not utilize a “list of available servers” but are instead

instructed by “controller 350” as to the tunnel server with which to communicate.⁵
(Pet. at 46)

The Petition attempts to further confuse the issue by naming two tunnel servers that “can be used to establish communications between gateway 311 and 321.” (Pet. at 46.) Hankins never discloses a controller-provided option to select from *either* “tunnel server one 360” *or* “tunnel server two 370,” as Petitioner implies. Rather, the first mention in Hankins of “tunnel server two 370” explains that this server 370 is connected later and *in addition to—not instead of*—a preexisting connection to server 360:

A path or channel for communications may potentially be enhanced by controller 350 provisioning an additional tunnel server Controller 350 may provision tunnel server two 370 Controller 350 may therefore initiate instructions to gateway devices 311, 321, 331, and 341 to additionally initiate communications with tunnel server two 370, while also continuing to be in communication with tunnel server one 360

Ex.1005 at 25:15-26.

⁵ See, e.g., Ex. 1005 at 24:53-57 (“Controller 350 may initiate instructions to gateway devices 311, 321, 331, and 341 to communicate with tunnel server one 360. Gateway devices 311, 321, 331, and 341 may therefore initiate communications, such as via signal packet transmissions, for example.”); 25:19-26 (“Controller 350 may provision tunnel server two 370. For example, in an embodiment, provisioning a tunnel server may be accomplished via execution of one or more software applications. Controller 350 may therefore initiate instructions to gateway devices 311, 321, 331, and 341 to additionally initiate communications with tunnel server two 370, while also continuing to be in communication with tunnel server one 360, for example.”).

The distinction between the '595 patent's claimed request by an endpoint device for an access server "*list*" and what Petitioner points to in Hankins is not trivial. The "*list*" is repeatedly referenced throughout claim 15 of the '595 patent. (See, e.g., Ex. 1001 at 34:13, 34:15, 34:17, 34:20, and 34:23.) It is the subject of the request that is "*receive[d]*" by the control server from a "first endpoint device". It is what is "*retrieve[d]*" by that control server. It is what is "*dynamically order[ed]*" by that control server. And it is, once ordered, what is "*transmit[ted]*" by that control server back to the first endpoint device issuing the initial request for the list. (Ex. 1001 at 34:12-24.) One could not simply substitute the word "*services*" in place of the claimed "*list of available servers*" in claim 15 of the '595 patent and yield a claim that would make any reasonable sense.

Petitioner also fails to support its bald assertion—without actual support—that a POSA would equate a request for "*services*" with a request for "*a list of available servers*".

Thus, a POSITA understood that a request from gateway 311 for services available from gateway 321 is a request for available tunnel servers that can provide a tunnel between gateway 311 and 321. This is consistent with the disclosure of the '595 Patent that when a device makes a request to a server, what it is really asking for is a list of available servers, and specifically an IP and port which it could utilize to in the build a tunnel.

(Pet. at 46.) To begin with, as explained in greater detail below, the teachings of the '595 patent cannot be used as a roadmap to reconstruct the prior art.

Further, Petitioner’s expert explains the ‘*available server list request*’ in the context of ’595 patent as a: “custom-made ***list*** of IP addresses and ports . . . [which] are contextually designed to provide ***best options*** for endpoint devices to utilize.” Ex. 1003 at ¶ 48 (citing EX-1001 27:20-31). By contrast, Hankins defines “***services***” very generally as: “. . . ***provisioning*** a capability for use, such as via a particular private network, which may, for example, include provisioning of resources and/or applications for use.” EX-1005 16:11-15.

More significantly, however, Petitioner’s expert agreed during his deposition that a “server” and a “service” are distinct concepts within the context of the technology at issue in the ’595 patent:

Q. The access point server in claim 3 of the 595 patent is a service. Is that your opinion?

Dr. Reddy: ***So a server provides a service. Server can provide multiple services*** and one server could have, as I mentioned before, a domain name service, firewall service, access point service, bunch of things rolled together into one. Service could be provided by hardware or software depending on implementation. ***So a server could provide multiple services.***

. . .

Q. But it is not a service itself. Is that correct?

Dr. Reddy: ***A server provides a service.***

(Ex. 2001, Transcript of the Deposition of Dr. Reddy, at 47:16-48:15.) Dr. Reddy therefor agreed, unequivocally and repeatedly, that a “server” and a “service” are not interchangeable terms in the context of the ’595 patent. Dr. Reddy’s opinion

therefore directly contradicts Petitioner’s assertion that a POSITA would equate a request for “services” with a request for “a list of available servers.”

Petitioner therefore provides no rationale for equating the claimed “request” for options via a “*list of available servers*” with the Hankins request for provisioning “*services*” from a server. In sum, there is no factual or technical basis in the record to conclude that the ’595 patent’s claimed “*request for a list of available servers*” is the same as Hankin’s “*request [for] services*.” This conflation error, alone, warrants dismissing the Petition and finding the ’595 patent claims not unpatentable.

B. Petitioner Improperly Relies on the Teachings of the ’595 Patent as a Roadmap to the Claimed Invention

The Petition’s conflation of “*list of available servers*” with “*services*” stems from yet another error made by Petitioner. Petitioner asserts that the unspecified “*request [for] services*” recited in Hankins necessarily constitutes “*a request for a list of available servers*.” (Pet. at 46 (“This is consistent with the disclosure of the ’595 Patent that when a device makes a request to a server, what it is really asking for is a list of available servers”))

Based on this unsupportable argument, the Board was misled into drawing the same flawed conclusion that misquotes the ’595 patent. (See Paper 9 at 18 (“This conclusion is directly supported by the ’595 patent’s statement that, when “a device makes a request to a server, what it is really asking for is a list of available servers.”).)

In fact, *the ’595 patent makes no such statement.*

It is impermissible to use the teachings of the '595 patent itself “as a roadmap to reconstruct the claimed invention using disparate elements from the prior art.” *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019) (citations omitted). *Second*, the Institution Decision inaccurately quotes the '595 patent, which actually says: “[w]hen a device makes ***a request to the server availability module***, what it is really asking for is a list of available servers” (Ex. 1001 23:17-19.) A “***server availability module***”—a special module within a control server as disclosed in the '595 patent—is a component for which the Petition offers no analogue in the prior art. The '595 patent gives this characterization of the list generated by this module:

FIG. 14 illustrates, in accordance with certain embodiments of the disclosed subject matter, ***the importance of a server availability list*** and how IP addresses and ranges are assigned for various devices.

(Ex. 1001 at 15:43-46.) Again, Petitioner’s own expert recognizes the special functionality associated with the “***server availability module***” when summarizing the '595 patent with respect to this component:

. . . the server availability module’s main benefit is ***to catalog*** the resources usage, IP addresses and ports of access point servers and to ***look at which devices***, such as end point devices that ***would like to connect to server access points*** to build tunnels with them. The server availability module ***calculates and compiles a custom-made list*** of IP addresses and ports which are contextually designed ***to provide best options*** for endpoint devices to utilize.

(Ex. 1003 at ¶ 48 (citing Ex. 1001 at 27:20-31).) Petitioner does not even assert—and therefore provides no support for the non-assertion—that a “*server availability module*” was a term of art, let alone a concept, known to a POSITA prior to its disclosure in the ’595 patent.

There is no factual or technical basis in the record to conclude that Hankins’ unspecified “*request [for] services*” is the same as the special *server availability list* request disclosed and claimed in the ’595 patent.

C. The Petition Fails to Show the Prior Art Dynamically Ordering a List of Available Servers for the First Endpoint Device Based on the One or More Records Associated with That Device

The Petition argues that the element it identifies as “[15.5]”⁶ is taught by either Hankins or Kommula. (Pet. at 48-52.) Neither teaches a control server configured to “dynamically order the list of available servers” as set forth in this claim element.

With respect to Hankins, all aspects of element [15.5] are missing. As noted above, Hankins fails to disclose a “list of available servers”. (*Supra*, Sect. V.A.) Without a list of available servers, there is nothing to “order”, let alone “dynamically order”. And there is and certainly no dynamic list ordering “based on one or more records associated with the network device.” Here, Petitioner argues that Hankins

⁶ Element [15.5] recites: “dynamically order the list of available servers for the first endpoint device based on the one or more records associated with the network device;” (Ex. 1001, 34:20-22.)

discloses a gateway afforded the option to select between “primary” route tunnel server one 360 and tunnel server two 370, “as a secondary route”. (Pet. at 48-49.) Hankins does not state that the transmission via tunnel server two 370 instead of tunnel server one 360 is based on a dynamically ordered list requested and received by an endpoint device, as would be required to meet the elements of Claim 15. The Petition sidesteps the lack of disclosure in Hankins by merely making a series of false/unsupported statements (see section E below), sprinkled with immaterial statements about how different tunnel servers could be better (if a controller were to try to order them).

With respect to Kommula, the facts are clear and admitted by Petitioner. Kommula is in the DNS server art, not the transport network art. (Pet. at 20-21.) The “tunnel” configuration required by the claims of the ’595 patent is directed to a “transport network.” (Ex. 2002 at ¶ 34.) In response to a DNS request from a local DNS server 30 to DNS proxy 12 (Fig. 1), Kommula orders the IP addresses for different host servers that could serve an application request. (Id. at 34.) This list will *never* include an access point server for an overlay network as required by claim 15, as DNS servers merely resolve URLs for application servers. Claim 15, however, requires a “tunnel” configuration through which access is provided to the network via access point servers. (Ex. 2002 at ¶ 34.) The DNS list is merely a list of application server IP addresses, with no instruction as to *how* a network access should be performed to reach those servers.

Furthermore, the Kommula DNS list is not based on one or more stored records associated with the first endpoint device.⁷ Most of Kommula’s ranking strategies have nothing to do with the endpoint device itself, and it does not “store records associated with each of the one or more endpoint devices” as required by claim 15. At best, Kommula may rank application servers based on a “proximity table indexed by network neighborhood” that averages round trip times to a server from a general locality of a client device. (Ex. 1004 at [0135].) Again, the particular identity of whatever device is hoping to access an application server is not important to Kommula and is not stored—Kommula is merely trying to serve DNS requests to distribute accesses to a group of servers. (*Id.*) This is quite different from claim 15, where the control server is trying to manage a virtual transport network by enabling tunnel connections between specific endpoint devices (that it tracks in detail) and specific access point servers.

In conclusion, Hankins fails to dynamically order any access server lists based on stored records associated with a requesting endpoint device. Kommula fails to address transport networks—which, as noted above, is the “tunnel” configuration of claim 15—or access point servers at all and does not store information for endpoints, but makes ordered lists of application servers in data centers. There is simply no

⁷ Patent Owner notes a typographical error in element 15.5, which nevertheless clearly refers back to the immediately preceding limitation “retrieve the one or more records associated with the first endpoint device.”

reason, absent hindsight gleaned from the '595 Patent, to take a DNS server reference and use it to heavily modify a private network reference that has nothing to do with DNS and suggests no dynamic ordering of anything.

D. The Petition Fails to Show that the Additional Elements of Dependent Claims 19-20 are Obvious in View of the Prior Art

Claims 19-20 recite further improvements in managing global virtual networks. These improvements place claims 19 and 20 even further beyond the ambit of Hankins and Kommula.

Claim 19 recites: “[t]he network system of claim 15, [*sic*] the one or more records are retrieved based on a unique device identity associated with the first endpoint device.” (Ex. 1001, 34:39-41; *see also* 27:45-48 (“The Db of IP address assignments 40-120 provides the information to be used by the internal subnet manager 40-300. The DEPAC clusters 40-250 have member devices 40-210 and each device has an identity 40-212 unique to it.”).) While claim 19 requires that the one or more records retrieved by the control server are “retrieved based on a unique device identity associated with the first endpoint device,” the Petition cites to no such stored records. (Pet. at 53.) Instead, the Petition merely refers to the discussion of claim 7. (*Id.*) This discussion refers only to Kommula, and specifically to paragraph [0135]—a paragraph that specifically states that Kommula’s DNS proxy only stores average round trip times for various network neighborhoods based on IP prefixes, not unique identities. (Pet. at 33.) The Petition inexplicably argues that

despite Kommula containing an extremely clear teaching to this effect, Petitioner's POSITA would ignore the IP prefix teaching and average RTT teaching and implement something entirely different, *i.e.*, more like claims 7 and 19. *Id.* A DNS server simply has no need to track client identities. (See Ex. 2002 at ¶ 35.) Kommula is no different in this respect. (See Ex. 2002 at ¶35.) The Petition fails to provide any factual basis to support a finding of obviousness for claim 19.

Claim 20 recites: “[t]he network system of claim 15, wherein the control server receives tunnel information associated with the one or more first tunnels via the global virtual network, and wherein dynamically ordering the list of available servers is further based on the tunnel information.” (Ex. 1001 at 34:42-46; *see also*, 27:13-19 (“Server Availability 40-260 looks at the tunnels 40-270, their IP and port use 40-276, reviews connectivity test 40-158, both current and historical, calculates port availability based on usage per IP Address, the IP addresses assigned to servers 40-122, devices 40-210, and other factors to manage how server resources are utilized and assigned.”))

The Petition also fumbles as to claim 20, merely referring to its prior discussion of claim 4. (Pet. at 54.) This discussion on claim 4 doesn't even use the word tunnel, and refers only to Kommula, which also fails to use the word tunnel. (*Id.*) Petitioner provides no reason as to why claim 20 should be found unpatentable.

E. The Board Should Disregard Each of Petitioner's Statements That Attribute Its Own Arguments to Hankins/Kommula

The Petition is peppered with unsupported attorney argument. For example, the Petition includes many arguments missing a citation to the relevant exhibit or any expert support whatsoever. (See, e.g., Pet. at 47 (“Hankins discloses that controller [sic] retrieves a list of available tunnel servers based on the stored configuration of the broadcast domain of a gateway (retrieve the one or more records associated with the first endpoint device).”), id. at 47 (“Gateway devices 311, 321, 331, and 341 may generate broadcast configurations for their respective logical broadcast domains which may be used by controller to identify a list of available tunnel servers.”), id. at 47 (“In addition, Hankins discloses retrieving more than one tunnel server to create multiple tunnels between gateways.”), id. at 47-48 (“Additional tunnel servers can be identified based on a variety of factors or considerations...”), id. at 48 (“Hankins discloses dynamically ordering a list of available tunnel servers for the gateway based on the one or more records associated with the gateway that provide contextual information.”), id. at 49 (“Hankins describes that the provisioning of tunnel servers may be generated based on the capability of the tunnel servers and thus a POSITA understood that Hankins orders the availability of the tunnel servers on the needs of the gateways in the broadcast domains.”), id. at 49 (“A POSITA would be motivated to modify the teaching of Hankins to identify available tunnel servers based on contextual information by including dynamically ordering the

available servers as taught by Kommula because it results in a more efficient use of network resources.”), *id.* at 50 (“Kommula disclose dynamically ordering a list of available servers to provide a communication path between network devices based on contextual information.”), *id.* at 51 (“Moreover, it was known that ranking of tunnel servers can be established as a network policy, as taught by Kommula.”), *id.* at 52 (“Hankins in combination with Kommula discloses [transmitting the ordered list of available servers to the first endpoint device].”

The Petition includes still further arguments that are supported by citations that do not support the Petitioner’s allegation. Applicant’s expert merely identifies the statements that bear most particularly on the greatest differences between Hankins/Kommula and claim 15 and provides a conclusory explanation for why these many assertions are wrong. (See, e.g., Pet. at 38 (“Hankins identifies the same contextual problem identified in the ‘595 Patent—that prior art tunnel controllers did not take into consideration contextual information regarding the network, such as the location of a tunnel server’s locations relative to the gateways.”), *id.* at 38 (“Like the ‘595 Patent, Hankins discloses that the controller may generate a list of available tunnel servers”), *id.* at 39 (“The tunnels are selected by the controller 350 (orange) using information obtained from the network devices (gateway, tunnel servers, etc.).”), *id.* at 45-46 (“Hankins discloses that the controller receives a request from a gateway 311 (*endpoint device*) for a list of available servers including tunnel servers (*access point server*).”), *id.* at 46 (“The controller identifies potential tunnel

servers that are available to provide a tunnel between gateway 311 to gateway 321.”), id. at 46 (“Thus, a POSITA understood that a request from gateway 311 for services available from gateway 321 is a request for available tunnel servers that can provide a tunnel between gateway 311 and 321.”), id. at 46 (“This [statement above] is consistent with the disclosure of the ‘595 Patent that when a device makes a request to a server, what it is really asking for is a list of available servers, and specifically an IP and port which it could utilize to build a tunnel.”), id. at 47 (“Hankins discloses a controller 350 that receives domain configuration information and identifies tunnel servers associated with one of the paths or channels for communications between the gateway devices.”), id. at 47 (“For example, in addition to identifying tunnel server one 360, controller may identify tunnel server two 370 which is more physically proximate to local broadcast domain c 330 and logical broadcast domain D 340.”), id. at 47 (“For example, gateway 311 is provided with a list of tunnel servers such as tunnel server one 360 and tunnel server two 370, based on information obtained from the network devices (gateway, tunnel servers, etc.) such as proximity of gateway device to tunnel server 360.”), id. at 49 (“A POSITA understood that providing a load balancing and fault tolerance means that a list of tunnel services would be provided in preference or order.”), id. at 49 (“A POSITA would be motivated to modify the identification of available tunnel servers as taught by Hankins to include dynamically ordering as taught by Kommula in order to make more efficient use of network resources.”), id. at 49 (“Hankins and Kommula are

analogous art. Both Hankins and Kommula are directed to identifying available servers to provide a communication path through a network.”), id. at 51 (“Hankins further describes that the provisioning of tunnel servers are reconfigurable in real time.”), id. at 51 (“Hankins discloses that the available tunnel servers are provided to gateway 311.”).)

Such unsupported and conclusory attorney argument is insufficient to support the Grounds asserted in the Petition and the Petitioner should therefore be denied.

VI. CONCLUSION

For all the reasons stated above, Patent Owner respectfully requests that the Board deny the Petition and find the Challenged Claims of the ‘595 patent not unpatentable.

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing PATENT OWNER'S RESPONSE UNDER 37 C.F.R. § 42.120 was served on December 11, 2024, in its entirety by filing this document through the Patent Trial and Appeal Case Tracking System (P-TACTS) as well as providing a courtesy copy via e-mail to the following attorneys of record for the Petitioner listed below:

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