

Patent Owner's Preliminary Response
IPR2025-01362 (U.S. Patent No. 8,782,282)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CIENA CORPORATION,
Petitioner,

v.

K.MIZRA LLC,
Patent Owner.

Case IPR2025-01362
Patent 8,782,282

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 35 U.S.C. §§ 311-19 AND 37 C.F.R. § 41.100, ET SEQ.**

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PATENT OWNER'S EXHIBIT LIST

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2001	USPTO's February 28, 2025 bulletin
2002	APJ Boalick's March 24, 2025 Memorandum
2003	First Amended Complaint (Dkt. 34)
2004	Oct. 21, 2025 Hearing Transcript
2005	Hausman Declaration
2006	Unified Patents <i>Ex Parte</i> Re-examination Request
2007	Re-examination Order
2008	March 26, 2025 Stewart Memorandum
2009	2025-11-06 Printout of Patent Maintenance Fees of US8782282
2010	FAQs for Interim Processes No. 22
2011	NDGA Statistics
2012	Excerpted USPTO Reexam Statistics

I. INTRODUCTION

Patent Owner K.Mizra LLC (“K.Mizra” or “Patent Owner”) respectfully requests that the Director deny institution of this Petition for *inter partes* review because the Petition fails to demonstrate a reasonable likelihood that Petitioner will succeed in carrying its burden to show that the challenged claims of K.Mizra’s U.S. Patent No. 8,782,282 (Ex. 1001 or the “’282 Patent”) are unpatentable. The Petition asserts a single ground: that claims 1-22 are obvious over *Secer* (Ex. 1004) in light of *Dinker* (Ex. 1005). However, Petitioner fails to properly account for every claim limitation in the challenged claims. Accordingly, no proceeding need be instituted, and the Petition should be denied.

II. THE CHALLENGED PATENT—U.S. PATENT NO. 8,782,282

A. Overview

The ’282 Patent, entitled *Network management system*, teaches novel systems and methods for improving scalability and efficiency in handling large volumes of events occurring in the network and network management tasks. A network management system (NMS) “refers to a system responsible for managing a network, and facilitates the communication between a carrier’s OSS [operations support systems] and NEs [network elements] in the network.” Ex. 1001 (’282 Patent) at 2:37-40. In contrast with the inventions disclosed in the ’282 Patent, conventional prior art NMSs faced several challenges as the size of data communications networks

grew and became more complex. As networks expanded, NMSs required increased processing power to manage network performance, identify and fix problems or malfunctions in the network, and plan for further network growth without becoming overwhelmed by the number of events occurring in the network that are generated by various network nodes and elements. *See* Ex. 1001 at 1:17-22.

Embodiments of the inventions disclosed in the '282 Patent provide, *e.g.*, systems and methods for a scalable and robust NMS architecture that can efficiently manage increasing network demands by implementing server clusters, load balancing, and distributed gateway and/or adapter systems. *Id.* at 7:65-8:2. This allows for incremental addition of network management resources without interrupting network operations, thereby optimizing performance and scalability. *Id.*

The '282 Patent teaches “a network management system that is robust, scalable, and capable of efficiently handling a growing network.” *Id.* at 1:23-25. Specifically, the inventors achieved, *e.g.*, “[h]igh scalability ... by using server clustering and distributed adapter architecture, with the load balancing scheme to connect the server cluster and NB and SB adapters in northbound and southbound directions respectively.” *Id.* at 7:65-8:2. In this distributed architecture, “multiple instances of such application servers can run simultaneously to distribute a workload and protect each other [where] [e]ach server instance by itself is a complete

functioning NMS server that runs independently[.]” Ex. 1001 at 8:12-15. An embodiment of the '282 Patent is shown below:

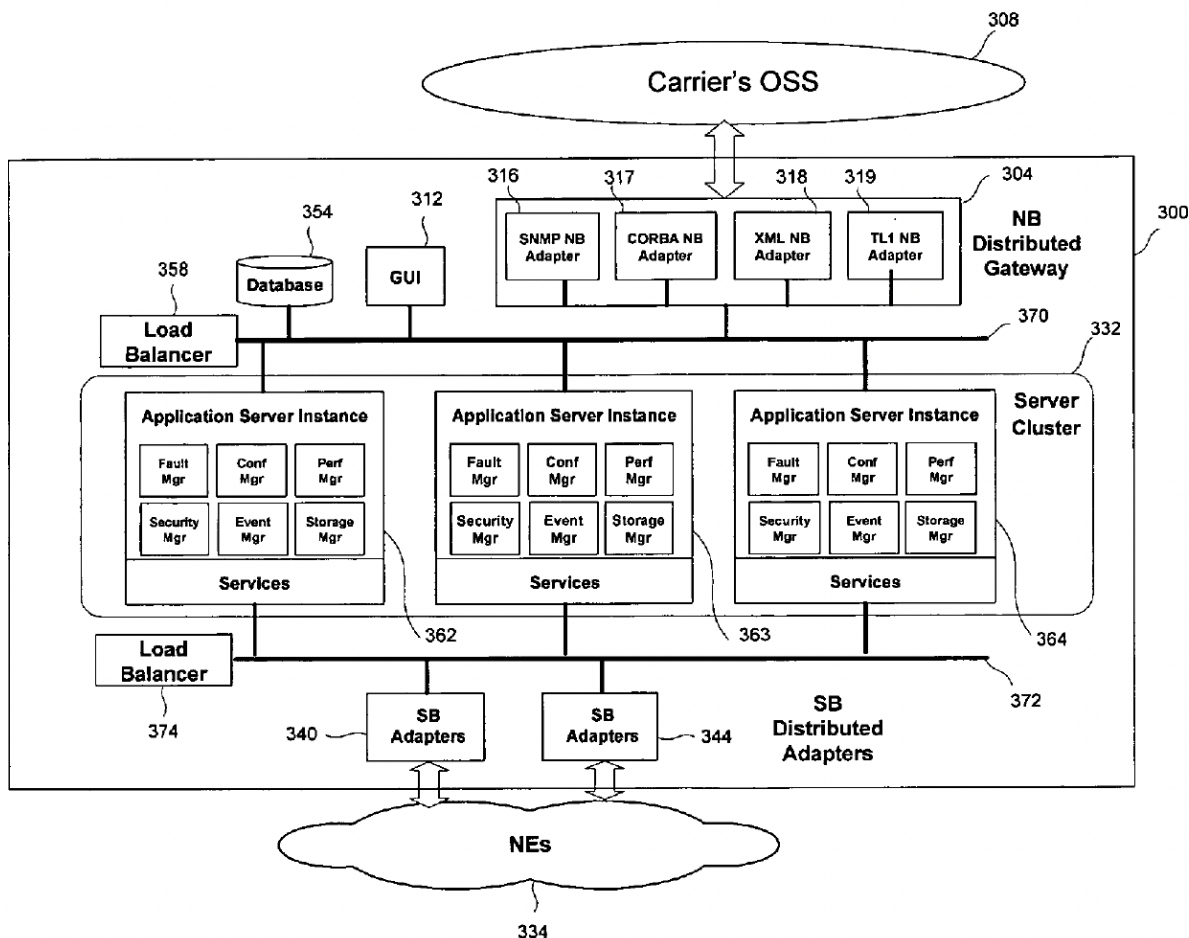


FIG. 3A: NB distributed gateway, SB distributed adapters, server cluster, & load balancers

Id. at FIG. 3A. Some of the benefits of the '282 Patent's distributed architecture include increased modularity (*see, e.g., id.* at 9:39-44 (“With this architecture of an NB gateway decoupled from NMS application servers, multiple NB gateways, each of which includes a certain number of NB adapters, can be designed and distributed

on different workstations for scalability and performance optimization.”)); reliability (*see, e.g., id* at 9:58-65 (“An instance of the server can also be shut down for any reason without interrupting the server functionality as a whole. When a server is shutdown, its associated software modules (NB gate way 304, GUI 312, or SB adapters 340 or 344) automatically re-establish the association with another server instance (one of existing servers 362-364 or a standby server) based on certain criterion, such as selecting the lightest loaded server.”)); and flexibility (*see, e.g., id.* at 9:67-10:2 (“[T]he distributed SB adapter-based NMS architecture can support a flexible network partitioning to manage different management domains based on the amount of management traffic in each domain in a large scale network.”)).

The inventors of the '282 Patent specifically contemplated how such a system would handle information flowing between the different components. For example, Figure 3B of the '282 Patent describes the downlink flow of information from the OSS as the originator:

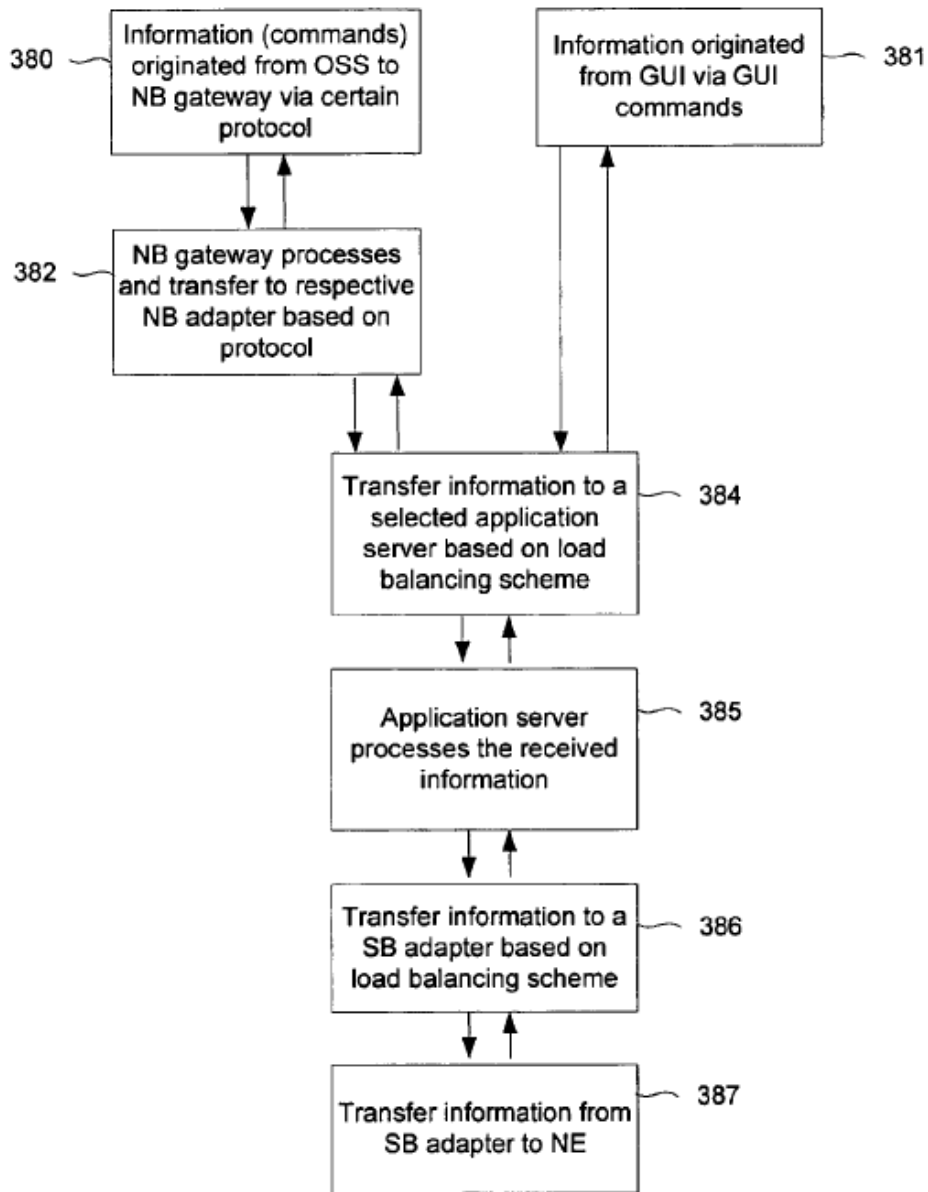


FIG. 3B: Downlink information flow (OSS or GUI as originator)

Figure 3C similarly depicts the flow of information in the uplink direction with the network elements as the information originator:

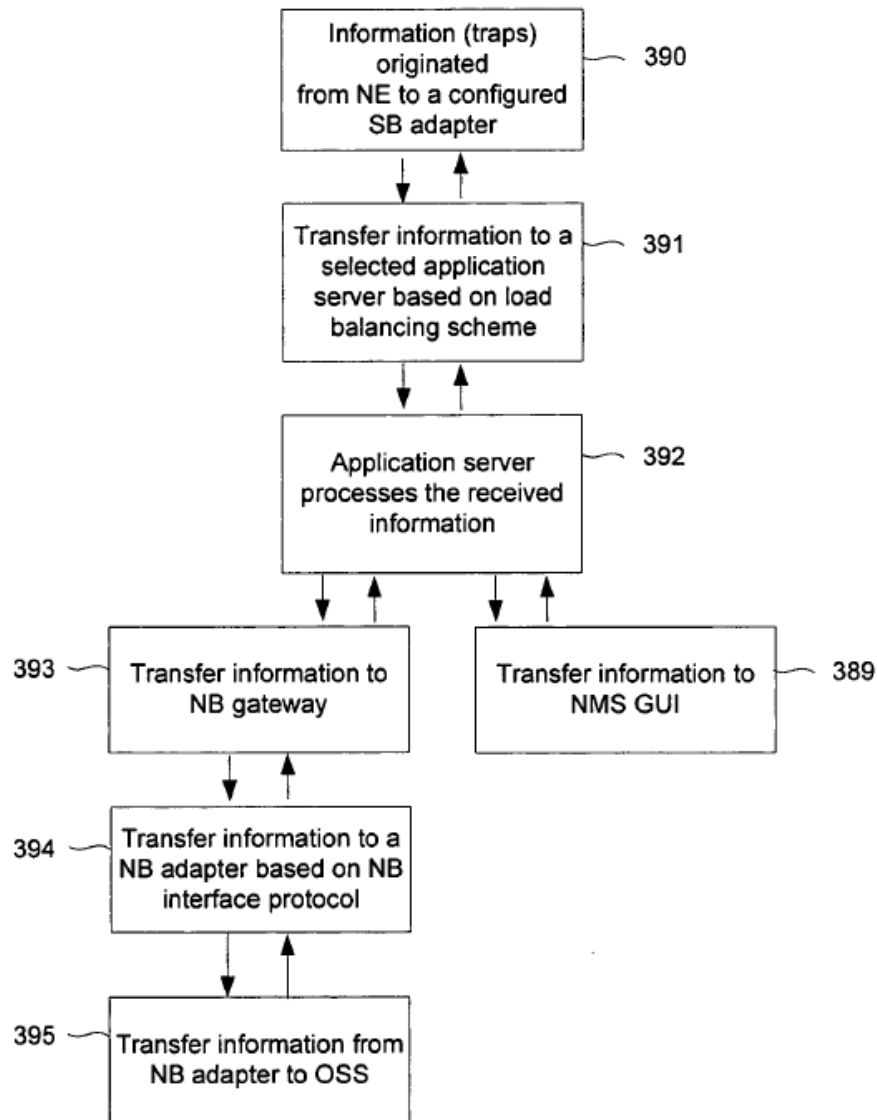
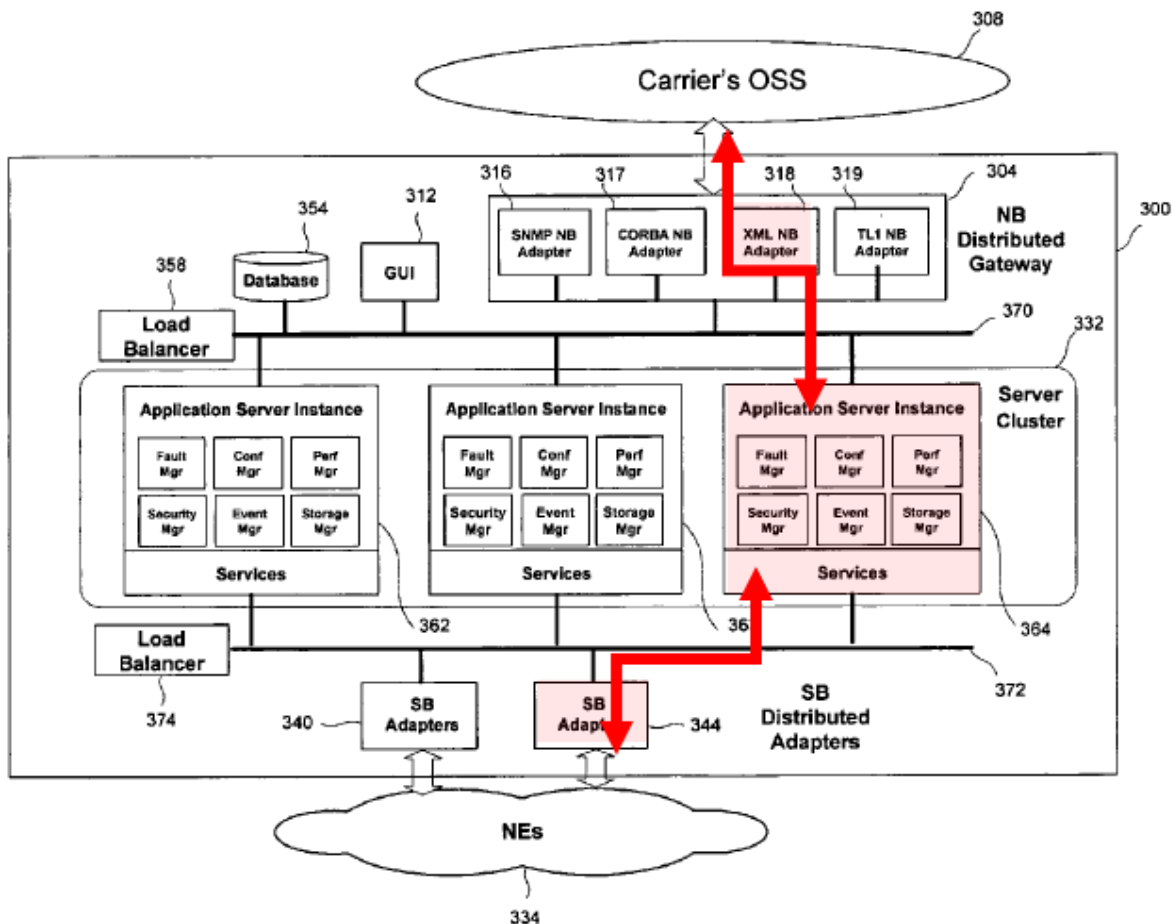


FIG. 3C: Uplink information flow (NE as originator)

Using annotated Figure 3A of the '282 Patent, an example of the paths depicted in Figures 3B and 3C can be visualized as follows, with the highlighted components denoting the elements of the NMS through which the information passes:

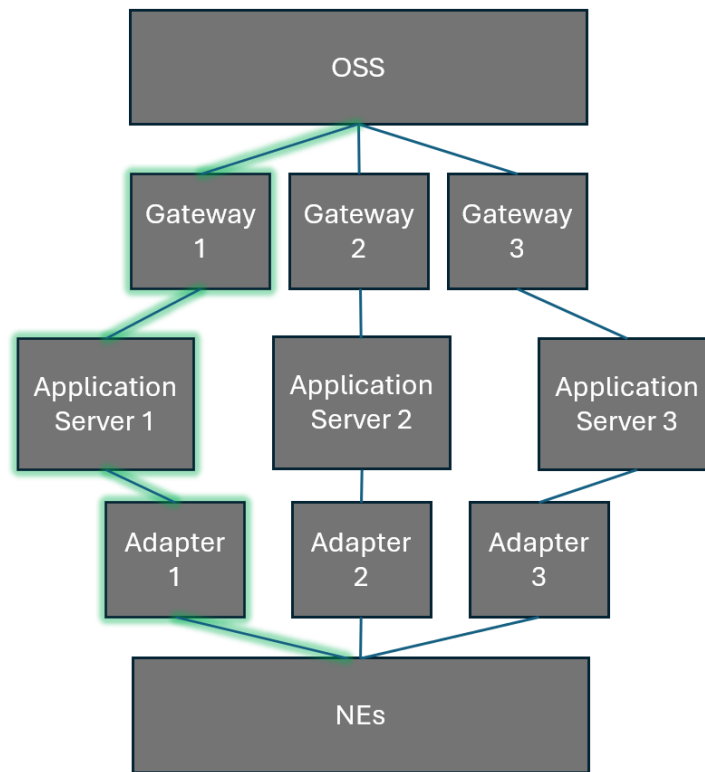


In the above non-limiting example, information flows from OSS 308 through the NB Distributed Gateway 304 using, for instance, the XML NB Adapter 318 to reach Application Server Instance 364 of Server Cluster 332 before reaching SB Adapter 344. Under the above example, data would also flow from the NEs 334 to OSS 308 along the same path.

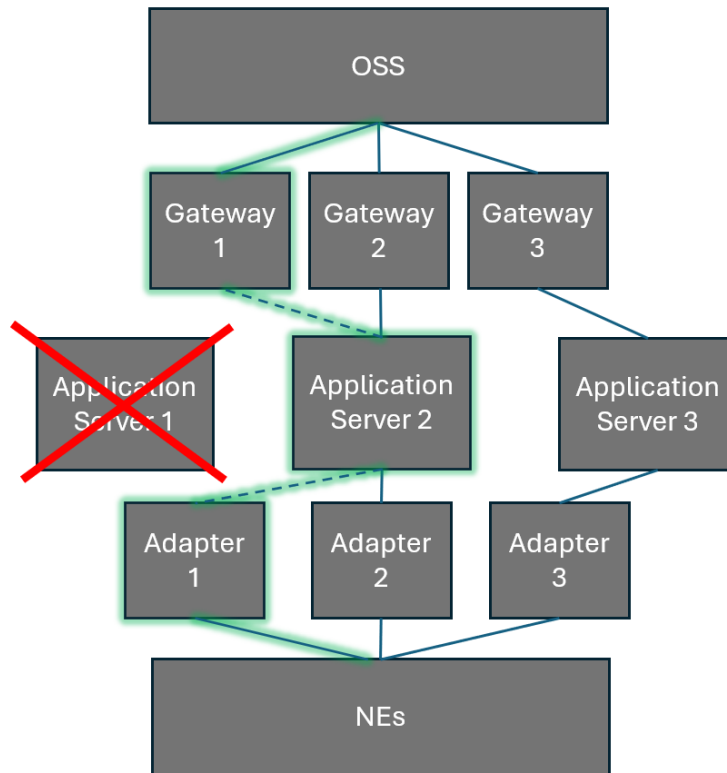
The '282 Patent's inventions are not limited to single-gateway situations, however: the "NB gateway design may be distributed so that multiple NB gateways, each of which includes a certain number of NB adapters, can be logically or

physically distributed over different workstations.” *See, e.g.*, Ex. 1001 at 2:17-21.

Thus, the '282 Patent teaches NMS operations in multi-gateway, multi-application server environments. An embodiment of that system is diagrammed below:



In the above example, which depicts a system with three gateways, three application servers, and three adapters between the OSS on the northbound side and the NEs on the southbound side, the green highlighted path on the left denotes a data stream passing from the OSS through Gateway 1, Application Server 1, and Adapter 1 to the NEs. If Application Server 1 encounters an error (as depicted below), becomes disconnected, or otherwise fails, the connections between Application Server 1 and Gateway 1 and Adapter 1 also cease to function.



In order for the system to resume operation and ensure reliable communications, another application server, Application Server 2, needs to be connected to Gateway 1 and Adapter 1 to carry on operations.

B. Claims of the '282 Patent

Petitioner challenges Claims 1-22 of the '282 Patent, which includes two independent claims, Nos. 1 and 3. Claim 1, a method claim, is representative and recited below:

1[pre] A method, comprising:

- [1.1]** receiving, at a first application server instance selected from a plurality of application server instances based on a load balancing process, first adapter processed information from a first adapter,

wherein the first adapter processed information comprises event information received by the first adapter from a network element and processed by the first adapter based on a first communication protocol;

- [1.2] processing, by the first application server instance, the first adapter processed information based on an event management service to produce application processed information;
- [1.3] sending, by the first application server instance, the application processed information to a gateway device, wherein the gateway device is one of a plurality of gateway devices respectively associated with the plurality of application server instances and is configured to transfer the application processed information to a second adapter of a plurality of second adapters configured to process the application processed information based on a second communication protocol to produce second adapter processed information and transfer the second adapter processed information to an operation support system device; and
- [1.4] in response to determining that the first application server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and between the gateway device and the second application server instance.

Ex. 1001 at 10:58-11:22.

Claim 3 essentially restates the method of Claim 1 as a system. Claim 3 is reproduced below:

3[pre] A system, comprising:

- [3.1] a first application server instance configured to receive first adapter processed information from a first adapter process the first adapter

processed information based on an event management service to yield application processed information, and send the application server processed information to a gateway device, wherein the first adapter processed information comprises event information from a network element that has been processed by the first adapter based on a first communication protocol; and

- [3.2] a load balancing component configured to select the first application server instance from a plurality of application server instances based on a load balancing process;
- [3.3] wherein the gateway device is one of a plurality of gateway devices respectively associated with the plurality of application server instances and is configured to transfer the application server processed information to a second adapter of a plurality of second adapters configured to process the application server processed information based on a second communication protocol to yield second adapter processed information, and send the second adapter processed information to an operation Support system device, and;
- [3.4] wherein, the first adapter and the gateway device are further configured to, in response to disablement of the first application server instance, establish an association with a second application server instance of the plurality of application server instances.

Ex. 1001 at 11:25-11:54. Of relevance here are claim elements [1.4] and [3.4].

Claims 2 and 4-14 depend on Claim 1 while Claims 15 through 22 depend on Claim 3.

C. Notice of Allowance of the '282 Patent

The '282 Patent's application was filed on December 19, 2003. Ex. 1002 at 0458-0494 (Application). Ultimately, the examiner granted allowance because the

closest prior art references “do not sufficiently teach or disclose all of the recited limitations of the amended independent claims, and claim 1 in particular, including the recited feature of ‘in response to determining that the first application server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and between the gateway device and the second application server instance” Ex. 1002 at 0025.

III. PERSON OF ORDINARY SKILL IN THE ART (POSITA)

Petitioner identifies a person of ordinary skill in the art (“POSITA”) as of December 19, 2003 as a person “knowledgeable and familiar with computer network management systems ... [who] would have gained knowledge of these concepts through a mixture of training and work experience, such as by having at least a bachelor’s degree in electrical engineering, computer science or related field, and at least two to three years of training or additional work experience in the domain of computer network management systems, or a related field.” Pet. at 11-12. Further, Petitioner states that “[t]he knowledge and skill of a POSITA is further reflected in the prior art references themselves, as well as the State of the Art.” *Id.* at 12. For purposes of this Preliminary Response, Patent Owner does not dispute this identification.

IV. CLAIM CONSTRUCTION

Petitioner asserts that “each claim term in the Challenged Claims be given its plain and ordinary meaning in this proceeding, and that no specific construction of any claim term is required.” Pet. at 11. For purposes of this Preliminary Response, Patent Owner does not dispute that the plain and ordinary meaning should apply to each claim term of the Challenged Claims. 37 C.F.R. § 42.100(b).

V. THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD OF PREVAILING ON THE SINGLE ASSERTED GROUND OF UNPATENTABILITY

Petitioner raises one ground of unpatentability: Petitioner alleges that Challenged Claims 1-22 are obvious over *Secer* (Ex. 1004) in view of *Dinker* (Ex. 1005). Pet. at 29-87. As detailed below, this single Ground fails to show a reasonable likelihood of success as to any of the Challenged Claims 1-22. Specifically, Petitioner has failed to “specify where each element of the claim is found in the prior art patents or printed publications relied upon.” See 37 C.F.R. § 42.104(b)(4). As detailed above, in addition to the preamble, independent Claims 1 and 3 each contain four limitations (*see* § II.B *supra*). But for Ground 1, Petitioner fails to show that its allegedly invalidating prior art references disclose element [1.4] of Claim 1—“in response to determining that the first application server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and

between the gateway device and the second application server instance.” *See* Ex. 1001, cl. lim. [1.4]. Petitioner similarly fails to show that its allegedly invalidating prior art references disclose and corresponding limitation [3.4] in Claim 3. *Id.*, cl. lim. [3.4]. Accordingly, because the asserted combinations of prior art references do not teach or disclose these limitations—which are part of each of the challenged claims—Petitioner fails to demonstrate a reasonable likelihood of success.

A. Legal Standard for Obviousness

A claim is unpatentable for obviousness under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

Where allegations of obviousness are premised upon multiple references, petitioners are required to demonstrate a reason to combine references. When multiple prior art references are combined, a claimed invention is not obvious unless a person having ordinary skill in the art would have been motivated to combine the references. *KSR Int’l Co.*, 550 U.S. at 418. Claiming that two references are similar or relate to the same industry or technology is not enough. *Heart Failure Techs., LLC v. Cardiokinetix, Inc.*, No. IPR2013-00183, Paper 12 at 9 (PTAB July 31, 2013); *see also William Wesley Carnes, Sr., Inc. v. Seaboard Int’l Inc.*, No.

IPR2019-00133, Paper 10 at 18-19 (PTAB May 8, 2019) (“[A] statement of similarity, however, does not constitute an articulated reasoning with rational underpinning as to why a POSITA would combine elements of one reference with another, and why a POSITA would modify the teachings of the references to arrive at the claimed invention.”); *Sipnet EU S.R.O. v. Straight Path IP Group, Inc.*, No. IPR2013-00246, Paper No. 11 at 20 (PTAB Oct. 11, 2013). For instance, in *Heart Failure Technologies*, the PTAB held that it was not obvious to combine several references merely because they all related to heart repair devices:

The fact that [the references] all concern human heart repair is not in itself sufficient rationale for making the combination. Many heart repair devices exist. That fact alone would not make it obvious to combine their features. Petitioner must show some reason why a person of ordinary skill in the art would have thought to combine particular available elements of knowledge, as evidence by the prior art, to reach the claimed invention.

No. IPR2013-00183, Paper 12 at 9. The law requires that Petitioner show some reason why a POSITA would have thought to combine the references identified in Ground 1 beyond the mere allegation that they both generically relate to networks.

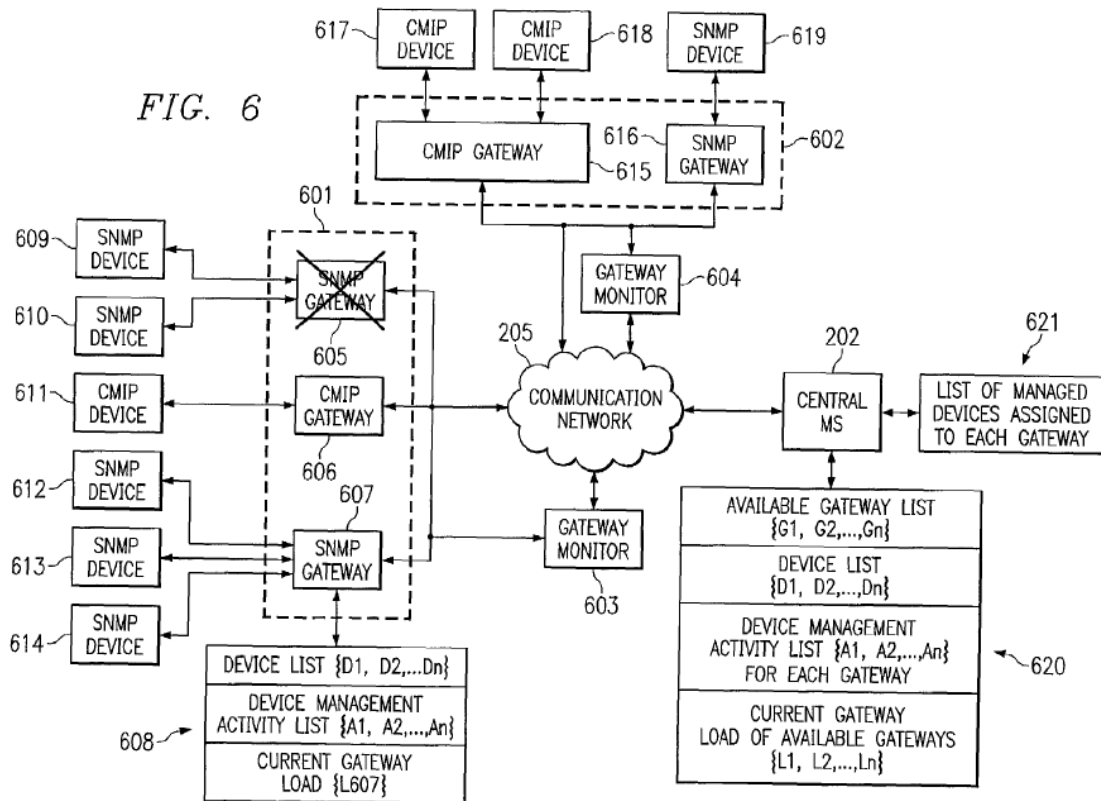
B. Ground 1: Petitioner Does Not Show That Challenged Claims 1-22 Are Obvious over *Secer* in View of *Dinker*

1. Overview of Asserted Prior Art

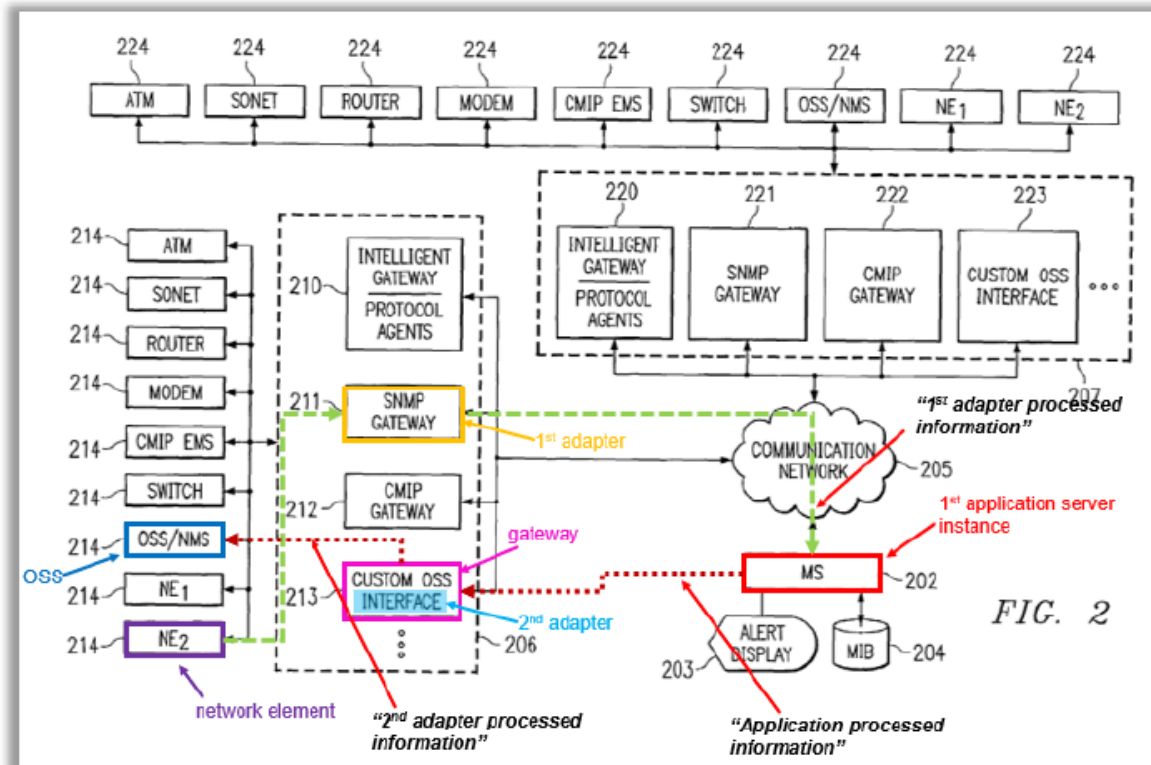
a) U.S. Patent No. 7,209,968 to Secer (“Secer”) (Ex. 1004)

Secer, filed on May 29, 2001, and granted April 24, 2007, is directed to a “[s]ystem and method for recovering management of network element(s) responsive

to failure of a distributed gateway.” Ex. 1004 at Title. As the title suggests, *Secer* is concerned with solving the problem of a gateway failure in a multi-gateway environment by detecting such failures and managing network resources to “balance[] the operational load placed on such available gateways.” *Id.* at Abstract; *see also id.* 4:15-22 (“[F]ailure of one of the distributed gateways may be efficiently detected, and responsive to detection of a failed gateway, management of the network element(s) for which such failed gateway had management responsibility may be efficiently recovered by assigning management responsibility to at least one other of the plurality of distributed gateways.”); Pet. at 29 (discussing *Secer*). Reproduced below is Figure 6 of *Secer*, which is “an exemplary implementation of one embodiment of [*Secer*] for detecting failure of a distributed gateway and recovering management of network elements for which such failed gateway had management responsibility” (Ex. 1004 at 6:8-12) that depicts a failure of SNMP Gateway 605:



Using Figure 2 of *Secer*, Petitioner identified the various gateways of *Secer* as a “first adapter” and a “gateway”, and the MS 202 as a “first application server instance.” Pet. at 30-31. According to Petitioner, “the gateways (each a *first adapter*) processed communications from network elements, converted the communications to the correct protocol, and sent the converted communication to central MS 202 for further processing.” *Id.* (citing in part to Ex. 1004 at 9:22-25) (italics in original).



Pet. at 30 (annotating Fig. 2 of *Secer*).

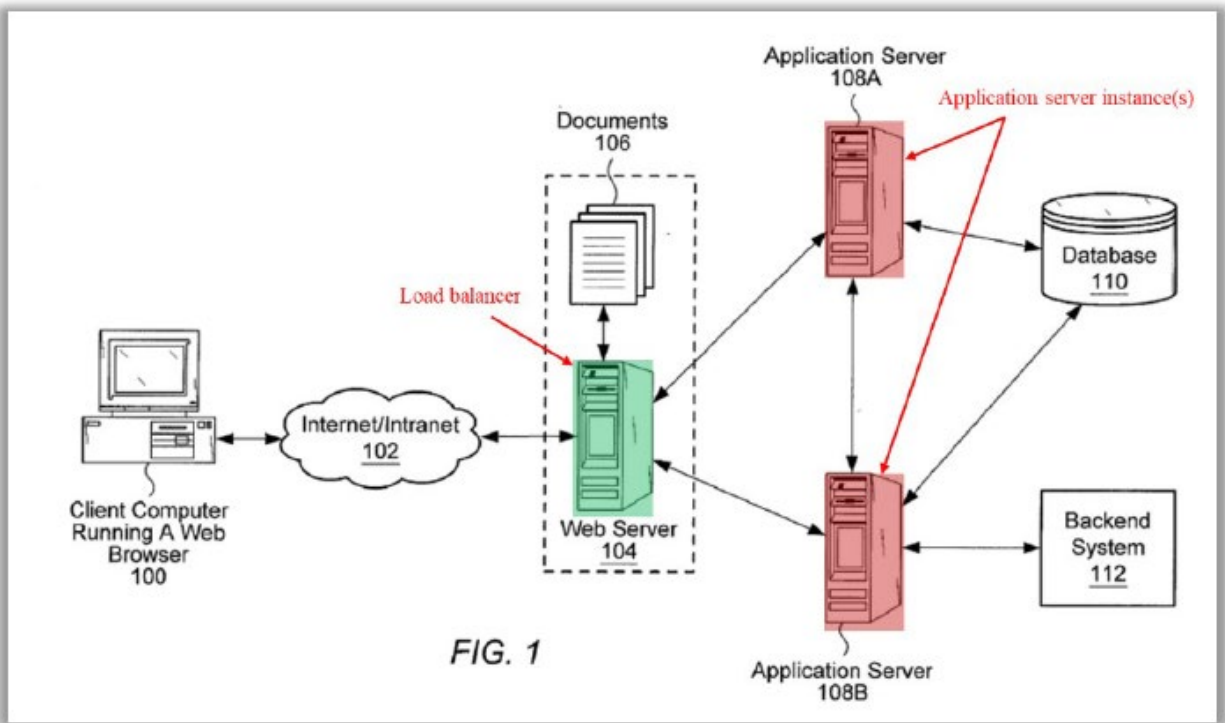
Petitioner further characterized *Secer*'s MS 202 as “identif[y]ing] and push[ing] the management behavior object to the ‘appropriate gateways.’” *Id.* at 32 (citing to Ex. 1004 at 10:4-11). And though Petitioner argues that *Secer*'s failure detection and recovery techniques may be utilized for devices other than gateways, Petitioner acknowledges that *Secer*'s gateway failover mechanism for devices other than gateways is not described. Pet. at 32-33. In addition, even with regard to gateways, *Secer* teaches only that an undisclosed failover mechanism forces the load of the failed gateway to a secondary gateway to ensure network reliability by

connecting a different, working gateway and a different, working adapter to the single application server instance, which has not failed. *Id.*

b) U.S. Patent Application Publication No. 2003/0177411 to Dinker et al. ("Dinker") (Ex. 1005)

U.S. Patent Application Publication No. 2003/0177411 to *Dinker et al.* was filed March 12, 2002 and published on September 18, 2003. Ex. 1005. *Dinker* was directed to a "system and method for enabling failover for an application server cluster." Ex. 1005 at Title. Specifically, *Dinker* discloses a system where backup application server computers exist to provide redundancy in the event of a primary application server failure. *Id.* at Abstract ("When the primary application server itself becomes unavailable (e.g., due to a failure of the computer system or network), one or more of the backup application servers may be promoted to the role of primary application server.)"

Petitioner identified *Dinker's* Web Server 104 as equivalent to the '282 Patent's load balancer and *Dinker's* Application Servers 108A and 108B as application server instances and annotated *Dinker's* Figure 1 accordingly (Petitioner's annotations reproduced below).



Pet. at 34. Though, according to Petitioner, *Dinker* purportedly “disclosed various failover procedures for sever clusters, including a ‘backup operational mode in which the functions of a system component (such as a processor, server, network, or database, for example), are assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time’” (Pet. at 34-35) *Dinker* does not disclose what happens when an application server instance fails in a *multi-gateway* environment.

2. *Secer* in Combination with *Dinker* Fails To Render Obvious At Least Claim Limitations [1.4] and [3.4] of the Challenged Independent Claims

Petitioner fails to make out a prima facie case of obviousness because the asserted references do not teach or disclose limitation [1.4] of Claim 1—*i.e.*, “in

response to determining that the first application server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and between the gateway device and the second application server instance,” and the corresponding limitation [3.4] in Claim 3.

All '282 Patent claims challenged under Ground 1 contain the above or equivalent language that requires the second application server instance to establish an association with the first adapter and *the gateway device* to which the first application server instance was previously connected upon failure of the first application server instance. *Compare* Ex. 1001, cl. lim. [1.4] and [3.4]; *see also* Pet. at 69 (relying on same arguments for both limitations). In other words, claim limitations [1.4] and [3.4] each require two things upon failure of an application server instance: (1) an association must be established between the first adapter and the second application server instance; and (2) an association must be established between the gateway device and the second application server instance.

Petitioner acknowledges that *Secer* alone fails to disclose limitations [1.4] and [3.4]. Pet. at 61, 69. Petitioner also acknowledges that *Secer* fails to disclose a plurality of application server instances. *See, e.g., id.* at 47 (“*Secer* did not expressly disclose that its MS (a first application server instance) was ‘selected from *a plurality of application server instances* based on a load balancing process.’”) (emphasis added).

Although *Secer* teaches what happens when a **gateway** failure occurs, it does not teach what happens when an **application server instance** fails. *See, e.g., id.* at 29, 47; Ex. 1004 at 1:25-35 (disclosing failure of a gateway). In the event of a gateway failure, *Secer* teaches that a failover mechanism forces the load of the failed gateway to a secondary gateway to ensure network reliability by connecting a different, working gateway and a different, working adapter to the single application server instance, which has not failed. *See, e.g., Pet.* at 30-33; Ex. 1004 at 10:31-52.

Accordingly, *Secer* fails to disclose both requirements of claim limitations [1.4] and [3.4]: (1) *Secer* does not disclose establishing an association between the first adapter and the second application server instance because there is no second application server instance in *Secer*; and (2) *Secer* does not disclose the establishment of an association between the gateway device and the second application server instance once again because there is no second application server instance, and further because the first gateway in *Secer* has failed.

Petitioner's second reference, *Dinker* (Ex. 1005) does not remedy this deficiency. Petitioner argues that *Dinker* discloses a primary and backup server instance. *Pet.* at 64. Petitioner acknowledges that *Dinker's* disclosure is limited to a load balancer operating in a **single-gateway**, multi-application server instance environment wherein an application server instance fails. *See, e.g., Pet.* at 47-50. *Dinker* does not disclose any adapters and so does not teach establishing a

connection between a second application server instance and an original adapter. *See, generally*, Ex. 1005. And because *Dinker* discloses only a single gateway through which all of the application server instances are already connected, there is no need to *establish an association* between the only gateway and the second application server instance because that connection already exists and there is no such connection to establish when the first application server becomes disabled. *See, e.g.*, Ex. 1005 at 0049. Accordingly, *Dinker* does not cure the deficiencies of *Secer*.

Because neither of the references of Ground 1 disclose the claim limitation [1.4] “in response to determining that the first application server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and between the gateway device and the second application server instance,” and corresponding language in limitation [3.4], Petitioner cannot rely on either *Secer* or *Dinker* to fill that gap. Accordingly, Petitioner cannot demonstrate a prima facie case of obviousness under Ground 1.

VI. CONCLUSION

Petitioner has failed to establish a reasonable likelihood that it will prevail on the single Ground advanced in its Petition to establish unpatentability of Claims 1-22 of the '282 Patent because none of Petitioner's asserted prior art references disclose the limitation [1.4] of “in response to determining that the first application

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server instance has become disabled, facilitating establishing an association between the first adapter and a second application server instance of the plurality of application server instances and between the gateway device and the second application server instance,” and corresponding language in limitation [3.4]. Thus, the Director should decline to institute *inter partes* review.

Respectfully Submitted,

Dated: December 11, 2025

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CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for all portions of the foregoing Patent Owner's Preliminary Response totals 3,912 words per Microsoft Word, which complies with the requirement of 14,000 words allowed under 37 C.F.R. § 42.24(d).

Dated: December 11, 2025

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CERTIFICATE OF SERVICE

As authorized by Patent Owner's Mandatory Notice, I hereby certify that on December 11, 2025, a copy of this document has been served in its entirety by electronic mail on Petitioner's lead and backup counsel.

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