

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
AUSTIN DIVISION**

PROVEN NETWORKS, LLC,

Plaintiff,

v.

DELL TECHNOLOGIES, INC., DELL, INC.  
EMC CORPORATION.

Defendants.

Case No. 6:20-CV-202-ADA

**JURY TRIAL DEMANDED**

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT  
AGAINST DELL TECHNOLOGIES, INC., DELL, INC., EMC CORPORATION**

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. §1 *et seq.*, in which Plaintiff Proven Networks, LLC (“Plaintiff” or “Proven Networks”) makes the following allegations against Defendants Dell Technologies, Inc., Dell Inc., and EMC Corporation. (collectively, “Defendants”):

**INTRODUCTION**

1. This complaint arises from Defendants’ unlawful infringement of the following United States patents owned by Proven Networks, each of which generally relate to data networking technology: United States Patent Nos. 8,018,852 (“852 Patent”), 8,165,024 (the “024 Patent”), 8,812,454 (the “454 Patent”), and 7,450,507 (the “507 Patent”) (collectively, the “Asserted Patents”).

2. The management and optimization of data flow in networking systems is essential in modern society. Not only do computers, smartphones, and home automation devices operating via the Internet generate data traffic, but basic technology such as voice services and file transfers

do as well. The enormous increase in multimedia content, such as videos, has greatly increased data traffic without proportional increases in data bandwidth. One problem caused by the large consumption of high-bandwidth multimedia content is that more important data, including relatively low-bandwidth services such as voice services and data transfers (e.g., financial data), can suffer due to lack of bandwidth, resulting in dropped calls and incomplete file transfers. Optimization of data traffic in data networks has become even more important in order to navigate the bandwidth limitations.

3. Another modern trend is greater use of cloud-based data services. One advantage is that companies can reduce their capital expenses by migrating their enterprise data to these data centers. However, data centers charge their enterprise customers by both the amount of data stored and the amount of data accessed—where the costs vary among different data storage providers depending on bandwidth, storage demand, and even time of day. The ability to manage the storage of data based on parameters such as data size and storage duration, is essential to manage the associated cost.

4. The Asserted Patents originated from telecommunications and wireless networking research from Alcatel-Lucent. The inventors were keenly aware of the increase of high-bandwidth applications such as video, especially in wireless and mobile networks, and sought to develop technology to maintain acceptable performance for as many users, for as long as possible, under varying and adverse data traffic conditions. Further, the inventors sought to managing the costs associated with the storage and access of such data in cloud-based data services.

5. For example, the '852 Patent teaches methods to augment routing decisions in networking equipment by using techniques based on “equal cost” paths to optimize data traffic. The '024 Patent teaches the use of a “deep packet inspection” device, especially in wireless

networks, to examine the characteristics of data packets passing through the network in order to provide classification data to the data packets for downstream application-specific processing. The '454 Patent teaches methods to manage the storage of data based on a determined storage duration time and a probability density function, in order to reduce the amount of unnecessary data in storage. The '507 Patent teaches a rate-limiting hierarchy method to control the bandwidth usage of different classifications of data traffic with provisions for exceeding the designated bandwidth by borrowing excess bandwidth from other classifications of data traffic under configurable conditions.

### **PARTIES**

6. Plaintiff Proven Networks, LLC is a company organized under the laws of the State of California. Proven Networks is the sole owner by assignment of all right, title, and interest in the Asserted Patents.

7. On information and belief, Defendant Dell Technologies Inc. is a corporation organized under the laws of the State of Delaware, with its principal place of business at One Dell Way, Round Rock, Texas 78682.

8. On information and belief, Defendant Dell Inc., a subsidiary of Dell Technologies Inc., is a corporation organized under the laws of the State of Delaware, with its principal place of business at One Dell Way, Round Rock, Texas 78682.

9. On information and belief, Defendant EMC Corporation, a subsidiary of Dell Technologies Inc., is a corporation organized under the laws of the State of Massachusetts, with a principal place of business at One Dell Way, Round Rock, Texas 78682.

**JURISDICTION AND VENUE**

10. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§1331 and 1338(a).

11. This Court has personal jurisdiction over Defendants in this action because Defendants have committed acts within this District giving rise to this action, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice. Defendants, directly and through subsidiaries or intermediaries, have committed and continue to commit acts of infringement in this District by, among other things, making, using, importing, offering to sell, and selling products that infringe the Asserted Patents.

12. Venue is proper in this District under 28 U.S.C. §1400 (b). Defendants are registered to do business in Texas, and upon information and belief, Defendants have transacted business in this District and have committed acts of direct and indirect infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the Asserted Patents. Defendants have a regular and established place of business in the District, including a shared corporate office at One Dell Way, Round Rock, Texas 78682. *See* Exhibits 10-12.

**COUNT I**

**INFRINGEMENT OF U.S. PATENT NO. 8,018,852**

13. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

14. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 8,018,852, titled “Equal-Cost Source-Resolved Routing System and Method.” The ’852 Patent

was duly and legally issued by the United States Patent and Trademark Office on September 13, 2011. A true and correct copy of the '852 Patent is attached as Exhibit 1.

15. On information and belief, Defendants make, use, offer for sale, sell, and/or import certain products (“Accused Products”), such as the Dell Networking OS (versions 10, 9.9, 9.8, 9.7, 9.2, 9.0.2.0, 8.3.19.0, 8.3.11.1, 8.3.10.0, 8.1.1.0) and network devices running Dell Networking OS such as S4048-ON, S6000-ON, Z9500, S6000, S4820T, Z9000, S4810, E-Series ExaScale, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–18 of the '852 Patent.

16. Since the date of the filing and service of the Original Complaint, Defendants have also knowingly and intentionally induced infringement of claims 1–18 of the '852 Patent in violation of 35 U.S.C. § 271(b). Defendants have knowledge of the '852 Patent and the infringing nature of the Accused Products based on the filing and service of the Original Complaint. Despite this knowledge of the '852 Patent, Defendants continue to actively encourage and instruct their customers and end users (for example, through user manuals and online instruction materials on their website) to use the Accused Products in ways that directly infringe the '852 Patent. Defendants do so knowing and intending that their customers and end users will commit these infringing acts. Defendants also continue to make, use, offer for sale, sell, and/or import the Accused Products, despite their knowledge of the '852 Patent, thereby specifically intending for and inducing their customers to infringe the '852 Patent through the customers' normal and customary use of the Accused Products.

17. The Accused Products satisfy all claim limitations of claims 1–18 of the '852 Patent. A claim chart comparing independent claim 1 of the '852 Patent to the representative Accused Product, Dell Networking OS 9.9, is attached as Exhibit 2.

18. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendants have injured Plaintiff and are liable for infringement of the '852 Patent pursuant to 35 U.S.C. §271.

19. As a result of Defendants' infringement of the '852 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

## **COUNT II**

### **INFRINGEMENT OF U.S. PATENT NO. 8,165,024**

20. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

21. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 8,165,024, titled "Use of DPI to Extract and Forward Application Characteristics." The '024 Patent was duly and legally issued by the United States Patent and Trademark Office on April 24, 2012. A true and correct copy of the '024 Patent is attached as Exhibit 3.

22. On information and belief, Defendants make, use, offer for sale, sell, and/or import certain products ("Accused Products"), such as the VMware NXS-T Data Center and SonicWALL Reassembly-Free Deep Packet Inspection (RFDPI) engine and security appliances running RFDPI engine, such as SonicWall TZ Series and SonicWall NSA series, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–25 of the '024 Patent.

23. Since the date of the filing and service of the Original Complaint, Defendants have also knowingly and intentionally induced infringement of claims 1–25 of the '024 Patent in violation of 35 U.S.C. §271 (b). Defendants have knowledge of the '024 Patent and the infringing

nature of the Accused Products based on the filing and service of the Original Complaint. Despite this knowledge of the '024 Patent, Defendants continue to actively encourage and instruct their customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '024 Patent. Defendants do so knowing and intending that their customers and end users will commit these infringing acts. Defendants also continue to make, use, offer for sale, sell, and/or import the Accused Products, despite their knowledge of the '024 Patent, thereby specifically intending for and inducing their customers to infringe the '024 Patent through the customers' normal and customary use of the Accused Products.

24. The Accused Products satisfy all claim limitations of claims 1–25 of the '024 Patent. Claim charts comparing independent claim 1 of the '024 Patent to representative Accused Products, VMware NXS-T Data Center and SonicWALL RFDPI, are attached as Exhibits 4-5.

25. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendants have injured Plaintiff and are liable for infringement of the '024 Patent pursuant to 35 U.S.C. §271.

26. As a result of Defendants' infringement of the '024 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

### **COUNT III**

#### **INFRINGEMENT OF U.S. PATENT NO. 8,812,454**

27. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

28. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 8,812,454, titled “Apparatus and Method for Managing Storage of Data Blocks.” The ’454 Patent was duly and legally issued by the United States Patent and Trademark Office on August 19, 2014. A true and correct copy of the ’454 Patent is attached as Exhibit 6.

29. On information and belief, Defendants make, use, offer for sale, sell, and/or import certain products (“Accused Products”), such as the Dell vSAN and infrastructure appliances running vSAN such as Dell EMC VxRail and VMware ESXI, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–21 of the ’454 Patent.

30. Since the date of the filing and service of the Original Complaint, Defendants also knowingly and intentionally induced infringement of claims 1–21 of the ’454 Patent in violation of 35 U.S.C. §271 (b). Defendants have knowledge of the ’454 Patent and the infringing nature of the Accused Products based on the filing and service of the Original Complaint. Despite this knowledge of the ’454 Patent, Defendants continue to actively encourage and instruct their customers and end users (for example, through user manuals and online instruction materials on their website) to use the Accused Products in ways that directly infringe the ’454 Patent. Defendants do so knowing and intending that their customers and end users will commit these infringing acts. Defendants also continue to make, use, offer for sale, sell, and/or import the Accused Products, despite their knowledge of the ’454 Patent, thereby specifically intending for and inducing their customers to infringe the ’454 Patent through the customers’ normal and customary use of the Accused Products.

31. The Accused Products satisfy all claim limitations of claims 1–21 of the ’454 Patent. A claim chart comparing independent claim 8 of the ’454 Patent to the representative Accused Product, Dell vSAN, is attached as Exhibit 7.



32. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendants have injured Plaintiff and are liable for infringement of the '454 Patent pursuant to 35 U.S.C. §271.

33. As a result of Defendants' infringement of the '454 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

#### **COUNT IV**

#### **INFRINGEMENT OF U.S. PATENT NO. 7,450,507**

34. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

35. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,450,507 titled "Hierarchal Rate-Limiting at a Network Node that Utilizes an Infinity Rate-Limit Check." The '507 Patent was duly and legally issued by the United States Patent and Trademark Office on November 11, 2008. A true and correct copy of the '507 Patent is attached as Exhibit 8.

36. On information and belief, Defendants make, use, offer for sale, sell, and/or import certain products ("Accused Products"), such as VMware SD-WAN by VeloCloud and VMware vSphere, including Dell network routers and switches that operate VMware SD-WAN (VeloCloud) and VMware vSphere, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–20 of the '507 Patent.

37. Since the date of the filing and service of the Original Complaint, Defendants have also knowingly and intentionally induced infringement of claims 1–20 of the '507 Patent in violation of 35 U.S.C. §271 (b). Defendants have knowledge of the '507 Patent and the infringing

nature of the Accused Products based on the filing and service of the Original Complaint. Despite this knowledge of the '507 Patent, Defendants continue to actively encourage and instruct their customers and end users (for example, through user manuals and online instruction materials on their website) to use the Accused Products in ways that directly infringe the '507 Patent. Defendants do so knowing and intending that their customers and end users will commit these infringing acts. Defendants also continue to make, use, offer for sale, sell, and/or import the Accused Products, despite their knowledge of the '507 Patent, thereby specifically intending for and inducing their customers to infringe the '507 Patent through the customers' normal and customary use of the Accused Products.

38. The Accused Products satisfy all claim limitations of claims 1–20 of the '507 Patent. A claim chart comparing independent claim 1 of the '507 Patent to the representative Accused Product, the VMware SD-WAN, is attached as Exhibit 9.

39. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendants have injured Plaintiff and are liable for infringement of the '507 Patent pursuant to 35 U.S.C. §271.

40. As a result of Defendants' infringement of the '507 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Defendants has infringed, either literally and/or under the doctrine of equivalents the '852 Patent, '024 Patent, '454 Patent, and '507 Patent;

b. A judgment and order requiring Defendants to pay Plaintiff its damages, costs, expenses, and pre-judgment and post-judgment interest for Defendants' infringement of the '852 Patent, '024 Patent, '454 Patent, and '507 Patent; and

c. A judgment and order requiring Defendants to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest;

d. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. §285 and awarding to Plaintiff its reasonable attorneys' fees against Defendants; and

e. Any and all other relief as the Court may deem appropriate and just under the circumstances.

**DEMAND FOR JURY TRIAL**

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: June 15, 2020

Respectfully submitted,

/s/ Reza Mirzaie

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