UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELL TECHNOLOGIES INC. AND DELL INC.,
Petitioners,

v.

CLOUD BYTE LLC
Patent Owner.

Case No. IPR2025-01284
U.S. Patent No. 9,900,249

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBITS

EX2001	U.S. Pat. No. 10,917,334
EX2002	U.S. Pat. No. 9,185,166
EX2003	U.S. Pat. No. 9,819,573
EX2004	U.S. Pat. No. 9,807,001
EX2005	Dkt. 94 (Second Amended Scheduling Order)
EX2006	Docket Navigator Statistics from 1/1/20-9/18/25
EX2007	U.S. Court's median time-to-trial statistics for the Eastern District of Texas
EX2008	Dkt. 119 (Order Setting Markman Hearing)
EX2009	F3 - Shimizu Invalidity Claim Chart for the '249 Patent (F3)
EX2010	'249 Patent Obviousness References Claim Chart (Appendix F)
EX2011	Declaration of Dr. Paul Min in support of Patent Owner's Preliminary Response
EX2012	Lee & Orailoglu, "Application Specific Non-Volatile Primary Memory for Embedded Systems" (2008)

I. INTRODUCTION

For the reasons explained in Patent Owner's Request for Discretionary Denial, the Board should exercise its discretion to deny these petitions given the significant settled expectations and the impending trial in the parallel litigation.

However, there are also significant flaws with the merits of the Petition, in particular its reliance on Shimizu for certain limitations for both of the Petition's grounds. The Petition fails to establish that Shimizu renders obvious any challenged claim at least because: (1) Shimizu does not disclose that its memory is "non-transitory," and (2) Shimizu does not disclose adding "path or link information" because the added tags at best indicate the ***historical*** path, not the forwarding path.

II. GROUND 1: SHIMIZU DOES NOT RENDER OBVIOUS ANY CHALLENGED CLAIM

A. The Petition Fails to Establish that Shimizu Discloses "Non-Transitory Memory" (Claims 1, 6) [1]

[1] Although this argument only applies to some of the challenged claims, if the Board agrees with this argument, then the Petition should be denied as it would be an inefficient use of Board resources to institute a proceeding where most of the claims are unlikely to succeed at trial. *Zhuhai CosMX Battery Co., Ltd. v. Ningde Amperex Tech. ltd.*, IPR2025-00405, Paper 24 at 3 (Oct. 15, 2025) (Director Review).

Claims 1 and 6 each recite a ***non-transitory computer readable medium*** that stores a packet forwarding table. 2011, ¶¶36-38. "Non-transitory" refers to a type of medium that retains data when disconnected from power, as opposed to a "volatile" medium that requires power to retain data. As the Petition states, the "memory devices commonly used in switches before 2009" are "RAM, SDRAM, or similar memory devices." Pet. 21. The Petition incorrectly refers to "RAM, SDRAM, or similar memory devices commonly used in switches before 2009" as "non-transitory computer readable medium." RAM and SDRAM are volatile memory, *i.e.*, the memory device types that lose their contents when power is removed from them, and thus are transitory. The Petition fails to establish that Shimizu discloses a ***non-transitory*** medium. The Petition instead only cites to disclosures in Shimizu of a "memory," but Shimizu does not specify whether such memory is non-transitory. Pet. 21-22. Nor does Petitioner argue it would be obvious to use a non-transitory medium.

A POSITA would in fact understand that the term "memory" in the context of Shimizu's switches typically refers to a ***volatile*** medium. EX2011, ¶39. Indeed, Petitioner argues that Shimizu's "memory" refers to "RAM" or "SDRAM," which are common examples of a volatile medium, not non-transitory medium. Pet. 21; EX2011, ¶37. While Petitioner also argues that

"memory" could refer to "non-volatile flash memory" or "Non-Volatile Random Access Memory," Petitioner provides no evidence that switches before 2009 were known to use such memory. Indeed, non-volatile flash memory was substantially slower than those of the volatile memory, a well-known fact to a POSITA in 2009. EX2011, ¶¶40-41. For example, an article by K. Lee and A. Orailoglu states that "[w]hile SRAM/DRAM demonstrates highly superior access behavior both in the preload time and the transfer time, NAND flash memory demonstrates a significantly long access time in terms of both read and write for the predefined access unit of a page as can be seen in Table 1." EX2012, 32.

Table 1: Timing Characteristics of Memory Devices

Device	SRAM	DRAM	NAND FLASH	OneNAND™
Access Time (ns)	5	50	30000	25000
Read Bandwidth (MB/s)	2500	1000	17	108
Write Bandwidth (MB/s)	2500	1000	6.8	9.3

EX2012, 33.

A POSITA would have known that the use of non-volatile memory devices such as NAND flash memory would not have been an obvious choice of memory device for the network-based routing scheme disclosed in Shimizu, wherein the speed of performing read/write operations is a critical consideration in selecting the type of memory devices to be used. EX2011,

¶42. In any case, such non-volatile memory is not disclosed in Shimizu, whether expressly or inherently.

B. The Petition Fails to Establish that Shimizu Discloses "Add[ing]" "Path or Link Information" (all claims)

Each challenged claim requires that, if it is determined that a packet is not forwarded to an external network, "path or link information" is added to the packet. The Petition fails to show that Shimizu discloses adding "path or link information." EX2011, ¶¶43-44.

The Petition relies on Shimizu's teaching that switches can "add an inbound tag" to packets they receive which "indicat[e] the group/switch/port that received the frame." EX1005, ¶[0020]; Pet. 38-40. However, such inbound tags do not provide "path or link information" because they do not provide information about the ***forwarding*** path. Instead, they at best indicate the historical path that the packet took to get to the current node.

The language of the claims and the specification require that the "path or link information" provide information about the ***forwarding*** path, not the historical path. EX2011, ¶45. This is supported by the fact that most claims recite "***link[s]*** between nodes on a packet ***forwarding path***" and all claims recite "***forward[ing]*** the incoming packet by using a ***path or link***." Thus the plain language of the claims indicate that "path or link information" refers to the forwarding path and links therein. *Id.*

In addition, the specification is replete with examples where the terms "path" and "link" refer to the forwarding path, and does not ever discuss historical paths. EX1001, 4:21-27 ("According to a first aspect of the present invention, there is provided a communication system including: a path management server that ***configures forwarding path information*** by arranging identifiers for identifying communication interfaces provided in respective forwarding nodes in a ***forwarding path*** of a data transfer network or ***links extending between the respective forwarding nodes*** and neighboring nodes thereof"); 6:41-45 ("addition and removal of the header including the ***forwarding path*** information"); EX2011, ¶46.

Because Shimizu does not disclose adding forwarding path or link information to the packets, it fails to render obvious the challenged claims. EX2011, ¶47.

III. GROUND 2: SHIMIZU AND RFC-4271 DO NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

Ground 2 of the Petition relies on combining Shimizu and RFC-4271 to purportedly teach the determination of whether to forward the packet. However, Petitioner does not allege that RFC-4271 discloses any of the above limitations discussed above. EX2011, ¶48. Accordingly, Ground 2 fails for the same reasons as Ground 1.

IV. CONCLUSION

For the foregoing reasons, *inter partes* review should not be instituted.

Date: October 20, 2025

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CERTIFICATE OF SERVICE (37 C.F.R. §§ 42.6(E), 42.105(A))

The undersigned hereby certifies that the foregoing document was served in its entirety on October 20, 2025 upon the following parties via Electronic Mail:

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