UNITED STA —	TES PATENT AND TRADEMARK OFFICE
BEFORE TH	E PATENT TRIAL AND APPEAL BOARD
	CISCO SYSTEMS, INC.,
	Petitioner,
	- vs. –
	ORCKIT IP, LLC,
	Patent Owner.
	Case IPR2023-00554
	U.S. Patent No. 10,652,111

PETITIONER'S REPLY TO PATENT OWNER RESPONSE

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I. INTRODUCTION

The Petition demonstrated Claims 1-9, 12-24 and 27-31 of the '111 Patent are unpatentable as obvious over Lin and Swenson (Ground 1) or Shieh and Swenson (Ground 2). Paper 1. Patent Owner ("PO") is unable to overcome the evidence presented by Petitioner. Instead, the Patent Owner Response ("POR") resorts to mischaracterizing the prior art and making unsupported arguments that require more from the art than is disclosed in the '111 Patent itself. These arguments cannot withstand scrutiny, and they must fail. Petitioner respectfully requests that the Board find the Challenged Claims unpatentable.

II. CLAIM CONSTRUCTION

PO submits the term "controller" should be construed consistent with a preliminary construction in the District Court Case, which was "an entity that is capable of controlling deep packet inspection." Paper 22 at 16-17. However, Petitioner's construction of controller (i.e., an entity configured to perform deep packet inspection on packets) is the correct construction because it more closely aligns with the disclosure in the '111 Patent. EX1015, ¶¶11-13. For example, the '111 Patent explains that "the central controller 111 is **configured to perform deep packet inspection on designated packets** from designated flows or TCP sessions." EX1001, Col. 4:5-7 (emphasis added); *see also id.*, Col. 4:8-18, 4:49-50. In addition, the Patent states that "the central controller 111 includes a DPI flow detection



module 311, a DPI engine 312, and a memory 313, and a processing unit 314." EX1001, Col. 5:33-36; *see id.*, Cols. 5:40-59, 8:1-5, 9:67-10:1, Figures 3, 6. PO's proposed construction of "an entity that is capable of controlling deep packet inspection" is not as consistent with these disclosures from the '111 Patent. Paper 22 at 17; EX1015, ¶13.

Regardless of whether the Board adopts either Party's proposed constructions, or provides no claim constructions, the analysis of the unpatentability of the Challenged Claims remains the same. EX1015, ¶14.

III. THE CHALLENGED CLAIMS ARE OBVIOUS.

- A. <u>Ground 1</u>: Lin and Swenson Render Claims 1-9, 12-24 and 27-31 Obvious.
 - 1. Lin and Swenson Disclose or Render Obvious the Claimed Controller.

PO incorrectly asserts that neither Lin nor Swenson discloses the claimed controller. POR at 19-38; EX1015, ¶¶7-8, 10, 15-42. Lin discloses that its SDN switch is under the control of a "SDN controller" that is external to the SDN switch, and the SDN controller "provides a logically centralized framework for controlling the behavior of the SDN computer network 600." EX1005, Col. 4:8-31; *see id.*, Col. 3:51-52, Figures 1, 6-8; EX1015, ¶17; Paper 1 at 8-10. Lin teaches a security service 630 that performs DPI and that "[t]he security service 630 may be connected to the SDN switch 620 by a physical link (i.e., using a wire), a virtual link (i.e., in a



virtualized environment), or by a software tunnel." EX1005, Cols. 3:11-12, 5:51-58; EX1015, ¶18. A POSA would have understood these disclosures in Lin to teach that the security service 630 could have been implemented using the same hardware or software as the controller, and connected to the SDN switch 620 in the same way as the controller. EX1015, ¶18; Paper 1 at 18-19.¹ As such, a POSA would have understood that one of the limited number of design options would have been to implement the security service as part of a controller configured to perform DPI analysis on packets, and a POSA would have had a reasonable expectation that the controller would have been successful in performing DPI analysis. EX1015, ¶18; Paper 1 at 18-19.

Further, Swenson teaches the use of a controller configured to perform DPI. EX1015, ¶19. Swenson discloses that "the flow analyzer 312 of the network controller 140 performs a deep flow inspection to determine if the flow is worth bandwidth monitoring and/or user detection." EX1007, ¶[0059]; see id., ¶[0060], Figures 1, 4A-4B. A POSA would have understood that a "flow" is a series of packets having a specific signature. EX1015, ¶19. Thus, a POSA would have known that the reference to "deep flow inspection" in Swenson refers to performing DPI on

¹ The Parties agree on the definition of a POSA and the priority date for the '111 Patent to be used in this proceeding. EX1015, ¶¶5-6; EX1016 at 54:16-55:24.



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