NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

ARISTA NETWORKS, INC.,
Appellant

v.

CISCO SYSTEMS, INC.,
Cross-Appellant

2017-2336, 2017-2347

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2016-00303.

Decided: November 9, 2018

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Before PROST, *Chief Judge,* SCHALL and CHEN, *Circuit Judges.*

PROST, *Chief Judge.*

In this *inter partes* review, Arista Networks, Inc. ("Arista") challenged the validity of claims 1, 2, 7–10, 12–16, 18–22, 25, and 28–31 of U.S. Patent No. 6,377,577 ("the '577 patent"). The Patent Trial and Appeal Board ("Board") held all but one of the challenged claims invalid. We affirm.

I

Transmission of data packets between devices in a computer network may be restricted using access control techniques. One technique is to use access control lists ("ACLs") that include "access control specifiers" describing which devices are permitted to send packets to which other devices. '577 patent col. 1 ll. 9–21.

The '577 patent generally relates to methods for performing access control using access control specifiers from an ACL that are recorded in a content-addressable memory ("CAM"). *Id.* at col. 2 ll. 38–44, col. 4 ll. 34–36. The specification describes an "access control element" that determines whether to allow transmission of a particular data packet. *Id.* at col. 3 ll. 36–38. When a data packet arrives at the access control element, certain information from the packet is compared with each access control specifier in the CAM. *Id.* at col. 4 ll. 34–47. For each access control specifier, a "priority encoder" receives an indicator as to whether that access control specifier matched the packet's information. *Id.* at col. 4 ll. 48–51.

The priority encoder then selects the access control specifier with the highest priority and provides an indicator of that access control specifier to an output port. *Id.* at col. 4 ll. 48–55. The indicator provided to the output port indicates whether the packet may be transmitted from its source device to its intended destination device. *Id.* at col. 4 ll. 57–60.

Claim 1 of the patent is representative and states:

1. A method, including the steps of maintaining a set of access control patterns in at least one associative memory;

receiving a packet label responsive to a packet, said packet label being sufficient to perform access control processing for said packet;

matching matchable information, said matchable information being responsive to said packet label, with said set of access control patterns in parallel, and generating a set of matches in response thereto, each said match having priority information associated therewith;

selecting at least one of said matches in response to said priority information, and generating an access result in response to said at least one selected match; and

making a [r]outing-decision in response to said access result.

Id. at claim 1. Meanwhile, claim 2 recites:

2. A method as in claim 1, including the step of performing at least two of said steps of receiving, matching, selecting, and making a routing decision, in parallel using a pipeline technique.

Id. at claim 2.

The Board held all challenged claims, except claim 2, invalid as obvious based on the combination of U.S. Patent No. 5,467,349 ("Huey") in view of the ATM User-Network Interface Specification, Version 3.0, Sept. 10, 1993 ("ATM UNI Specification"). *Arista Networks, Inc. v. Cisco Sys., Inc.*, IPR2016-00303, 2017 WL 2304429, at *16 (May 25, 2017) (Paper 53) ("*Final Written Decision*"). Arista timely appealed the Board's decision upholding the validity of claim 2. Cisco timely cross-appealed with respect to the invalidated claims. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II

Obviousness is a question of law based on underlying factual inquiries. *In re Applied Materials, Inc.*, 692 F.3d 1289, 1294 (Fed. Cir. 2012). We review the Board's obviousness determination de novo, and we review its factual findings for substantial evidence. *Id.*

A

Arista's appeal seeks to overturn the Board's decision upholding the validity of claim 2. Specifically, Arista contends that the Board's analysis of the "in parallel using a pipeline technique" limitation of claim 2 was flawed.

Arista first argues that the Board erred by reading this limitation to require that the relevant steps be performed on the *same* packet at the same time, rather than on *different* packets at the same time. Appellant's Br. 27–34. But there was no dispute between the parties on this issue before the Board. *See Final Written Decision*, at *14 ("Patent Owner does not appear to suggest that the relevant steps must occur on the *same* packet at the same time." (emphasis added)). Moreover, there is no indication that the Board's analysis required the steps to be performed on the *same* packet. To the contrary, immediately after the statement Arista takes issue with, the

Board concluded that Arista's argument that steps must occur at the same time for *different* packets was "irrelevant" given that Cisco did not raise an argument to the contrary. *Id.* In short, there is simply no reason to believe that the Board's analysis required the steps to be performed on the *same packet* at the same time. We therefore decline to address this issue further. And to the extent Arista disputes the Board's factual findings with respect to whether Huey and the ATM UNI Specification disclose this limitation under the understanding that steps are performed on *different* packets at the same time, there is substantial evidence to support the Board's findings.

Arista next argues that the Board did not sufficiently consider two pieces of evidence related to this limitation: (1) certain deposition testimony of Arista's expert, Dr. Chao; and (2) a book titled "The Architecture of Pipelined Computers" by Peter Kogge ("Kogge"). Appellant's Br. 35–40. In Arista's view, this evidence demonstrated that one of ordinary skill would have understood Huey and the ATM UNI Specification as satisfying the "in parallel using a pipeline technique" limitation of claim 2. But Arista raised both pieces of evidence for the first time in its reply brief before the Board. Moreover, the Board explained why Kogge did not support Arista's position, and there is substantial evidence to support the Board's analysis. *See Final Written Decision*, at *14–15. We find no error in the Board's treatment of this evidence.

B

In its cross-appeal, Cisco challenges the merits of the Board's patentability analysis as well as the Board's refusal to apply the doctrine of assignor estoppel. Although Cisco attempts to frame its patentability arguments as claim construction disputes, the arguments appear to be directed to the Board's factual analysis of the prior art, which we review for substantial evidence.

First, Cisco contends that the Board erroneously concluded that the claims of the '577 patent allow for some steps to be performed via software. Cross-Appellant's Br. 64–69. Although the parties appear to agree that the claims incorporate at least one hardware element (the CAM), and that certain claimed steps necessary to implement access control (namely, the "maintaining" and "matching" steps) are performed in that hardware element, nothing in the claim language limits the remaining steps to being performed on hardware.

Cisco's remaining patentability arguments are also unpersuasive. There is substantial evidence to support the Board's finding that Huey's virtual channel and virtual path addresses, which are stored in CAM arrays in the address handler, satisfy the "access control patterns" limitation of the claims. *Final Written Decision*, at *6, *10–11. Likewise, substantial evidence supports the Board's finding that Huey's cell policer satisfies the claim limitation requiring an access result to be generated "in response to" a match. *See id.* On this point, the Board found that no cell in Huey is discarded by the cell policer unless that cell has first been matched by the address handler. *Id.* at *11. And, as the Board noted, there is simply no requirement in the claims that access control patterns be directly used in making the ultimate routing decision. *Id.*

Finally, as to the overarching issue of assignor estoppel, this court held in a concurrently issued opinion that assignor estoppel does not apply in *inter partes* review proceedings. *Arista Networks, Inc. v. Cisco Sys., Inc.*, No. 17-1725, slip. op. at 17–23 (Fed. Cir. Nov. 9, 2018). Cisco's argument regarding assignor estoppel is therefore unavailing.

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III

For the reasons above, we affirm the decision of the Board with respect to Arista's appeal and Cisco's cross-appeal.

AFFIRMED

COSTS

The parties shall bear their own costs.