

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**PALO ALTO NETWORKS, INC.,**  
*Appellant*

v.

**FINJAN, INC.,**  
*Appellee*

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2017-2314, 2017-2315

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Appeals from the United States Patent and Trade-  
mark Office, Patent Trial and Appeal Board in Nos.  
IPR2015-01979, IPR2016-00151, IPR2016-00919,  
IPR2016-01071.

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Decided: November 19, 2018

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ORION ARMON, Cooley LLP, Broomfield, CO, argued  
for appellant.

JAMES R. HANNAH, Kramer Levin Naftalis & Frankel  
LLP, Menlo Park, CA, argued for appellee. Also repre-  
sented by PAUL J. ANDRE.

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Before REYNA, SCHALL, and STOLL, *Circuit Judges*.

REYNA, *Circuit Judge*.

In this consolidated appeal, Appellant-Petitioner Palo Alto Networks, Inc. challenges the Patent Trial and Appeal Board’s Final Written Decisions upholding the patentability of U.S. Patent No. 8,141,154 in two *inter partes* review proceedings.<sup>1</sup> For the reasons below, we affirm the Board’s decision in IPR2015-01979. We vacate the decision in IPR2016-00151 and remand for proceedings consistent with the Supreme Court’s decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018).

## BACKGROUND

### I. The ’154 Patent

Finjan, Inc. (“Finjan”) owns U.S. Patent No. 8,141,154 (“the ’154 patent”), entitled “System and Method for Inspecting Dynamically Generated Executable Code.” The ’154 patent is broadly directed toward computer virus protection against dynamically generated malicious code and conventional viruses that are statically generated.

The ’154 patent describes a system that inspects function inputs in content received over a network for potentially malicious behavior and halts execution or modifies the input if deemed unsafe. An embodiment of the system claimed by the ’154 patent contains a gateway computer, a client computer, and a security computer. ’154 patent col. 8 ll. 45–47. The gateway computer receives content from a network, such as the Internet, over a communication channel; the content may be in the form of HTML pages, XML documents, Java applets, and other content renderable on a web browser. *Id.* col. 8 ll. 48–51. A content modifier modifies original content received by the

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<sup>1</sup> Symantec Corporation, an original appellant, settled and withdrew as a party after this appeal was filed.

gateway computer to produce content that includes a layer of protection to combat dynamically generated malicious code. *Id.* col. 9 ll. 13–16.

The '154 patent has four independent claims (1, 4, 6, and 10), each reciting a system or software program that executes a substitute function. The substitute function inspects the input to an original function to determine if executing the original function with the input violates a security policy. Claim 1 is illustrative:

1. A system for protecting a computer from dynamically generated malicious content, comprising:

a content processor (i) for processing content received over a network, the content including a call to a first function, and the call including an input, and (ii) for invoking a second function with the input, only if a security computer indicates that such invocation is safe;

a transmitter for transmitting the input to the security computer for inspection, when the first function is invoked; and

a receiver for receiving an indicator from the security computer whether it is safe to invoke the second function with the input.

'154 patent col. 17 ll. 31–44.

In the language of the '154 patent, the “first function” is the inspection step in which the content is assessed for safety, and the “second function” is when, having been deemed safe, the content is actually run.

## II. Proceedings Before the Board

Palo Alto Networks, Inc. (“Palo Alto”) filed petitions for *inter partes* review (“IPR”) in IPR2016-00151 (“the -00151 IPR”) and IPR2015-01979 (“the -01979 IPR”),

challenging the validity of various claims of the '154 patent under 35 U.S.C. § 103.

#### A. The -00151 IPR

In the -00151 IPR, Palo Alto petitioned for IPR of claims 1–8, 10, and 11 of the '154 patent as obvious under 35 U.S.C. § 103 over U.S. Patent Application Pub. No. 2007/0113282 A1 (“Ross”), and claims 9 and 12 as obvious under § 103 over Ross and U.S. Patent Application Pub. No. 2002/0066022 A1 (“Calder”). J.A. 3358–3409. The Board instituted review of claims 1–8, 10, and 11 under § 103 over Ross, but declined to institute claims 9 and 12. J.A. 3497.

The Board issued a Final Written Decision concluding that Ross disclosed every limitation in the asserted claims except a “call to a first function,” and thus concluded that the instituted claims had not been shown to be unpatentable under § 103. *Palo Alto Networks, Inc. v. Finjan, Inc.*, IPR2016–00151, 2017 WL 1040254, at \*5–7, \*10 (P.T.A.B. Mar. 15, 2017) (“-00151 IPR FWD”). Palo Alto moved for rehearing, arguing that the Board should construe the term “call to a first function” the same way in the -01979 and -00151 IPRs. J.A. 3967. The Board agreed that the construction for “a call to a first function” must be consistent across the IPRs, and updated its -00151 IPR FWD to adopt the construction from the -01979 IPR. *Palo Alto Networks, Inc. v. Finjan, Inc.*, IPR2016–00151, 2017 WL 2211715, at \*1 (P.T.A.B. May 19, 2017). The Board concluded that the new construction did not expand the scope of the term, and on that basis did not update its analysis and conclusions of the patentability of the '154 patent in the -00151 IPR FWD. *Id.* at \*1–2.

#### B. The -01979 IPR

In the -01979 IPR, Palo Alto petitioned for IPR of claims 1–5 of the '154 patent as obvious under 35 U.S.C. § 103 over U.S. Patent Application Pub. No. 2005/0108562

(“Khazan”) in view of Sirer,<sup>2</sup> and claims 6–8, 10, and 11 as obvious under § 103 over Khazan in view Sirer and U.S. Patent No. 7,437,362 (“Ben-Natan”). J.A. 234. The Board subsequently instituted on all of the petitioned claims and grounds. J.A. 362.

i. Khazan

Khazan is the only prior art reference relevant to the -01979 IPR on appeal. Khazan discloses a system for detecting malicious code by performing both static and dynamic analysis. Khazan, Abstract. In the static analysis phase, Khazan’s instrumentation process wraps (i.e., surrounds) calls to original/target functions contained in an executable application, such that the calls are intercepted by a wrapper function. More specifically, during the static analysis portion of the system, to intercept potentially malicious function activity, Khazan’s system replaces the first line of code in the original function with a jump command. *Id.* ¶¶ 88, 90–91. Once the program is run, the jump command transfers control of the program to a wrapper function to verify the safety of the original function input. *Id.* ¶ 82. Khazan’s system saves the first instruction of the original function, replaced by the jump command, to be executed after the program is verified to be safe. *Id.* ¶ 88. In the language of the ’154 patent, Khazan’s wrapper function is the “first” or substitute function and the original or target function is the “second” function.

ii. Final Written Decision in the -01979 IPR

In the -01979 IPR, the Board construed two terms of the ’154 patent: “content” and “call to a first function.”

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<sup>2</sup> Emin Gün Sirer, et al., *Design and Implementation of a Distributed Virtual Machine for Networked Computers*, 33 ACM SIGOPS Operating Systems Review 202 (Dec. 5, 1999) (“Sirer”).

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