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EXHIBIT D

US 11,539,663

As used herein and with respect to the '663 Patent, the term “Accused '663 Products” means:

- (a) PAN products that incorporate, rely upon, interact with, or otherwise utilize Broker Virtual Machine, (“Broker”);
- (b) any other products that utilize the libraries, applications, scripts, packages, or other modules that implement the functionality described below in a manner not materially different with respect to the claims charted below;
- (c) any other products that infringe the asserted claims for analogous reasons to those described below; and,
- (d) Palo Alto Networks (“PAN”) products that practice one of more claims of the '663 Patent.

This claim chart for the '663 Patent covers all Accused '663 Products. The theory of infringement described below in connection with the Asserted Claims is analogous to the theory of infringement for all the Accused '663 Products.

I. Claim 1

<p>1. A system for ingestion of data into a cloud-based service from an external network, comprising:</p>	<p>The Accused '663 Products include a system for ingestion of log data into a cloud-based service from an external network.</p> <p>For example, PAN's documentation explains that Broker is a system for ingestion of log data into a cloud-based service, such as PAN's Cortex:¹</p> <p>The Palo Alto Networks Broker VM is a secured virtual machine, integrated with Cortex XDR, that bridges your network and Cortex XDR. By setting up the Broker VM, you establish a secure connection in which you can route your endpoints, collect logs, and forward logs and files for analysis.</p> <p>Cortex XDR can leverage the Broker VM to run different services separately using the same Palo Alto Networks authentication. After you complete the initial setup, the Broker VM automatically receives updates and enhancements from Cortex XDR, providing you with new capabilities without having to install a new VM or manually update the existing VM.</p>
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¹ Palo Alto Networks, *What is the Broker VM?*, available at <https://docs-cortex.paloaltonetworks.com/r/Cortex-XDR/Cortex-XDR-Documentation/What-is-the-Broker-VM> [hereinafter *What is the Broker VM?*].

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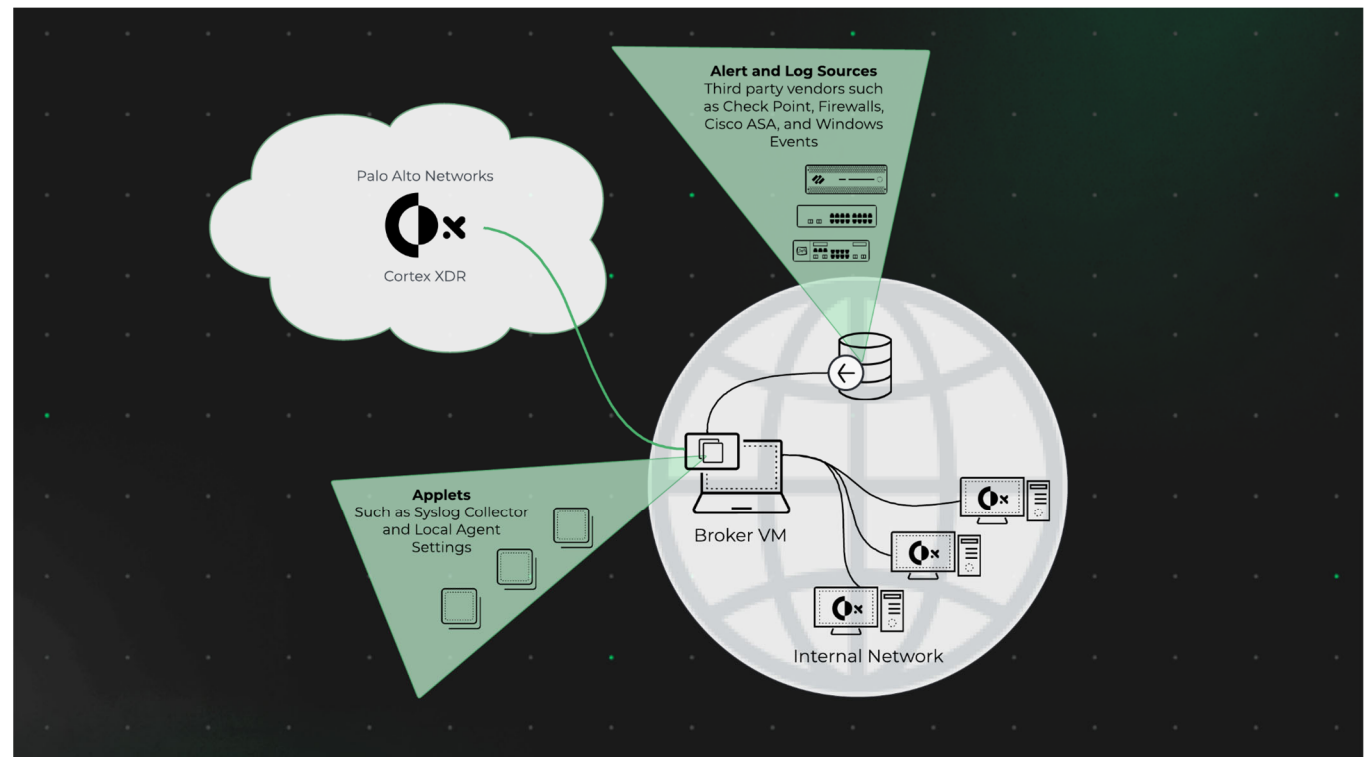
	<p>The virtual machine runs on a computer system and requires at least a processor and a memory to set up and run, as seen, for example, in the following excerpt of PAN’s documentation:³</p> <p>Hardware</p> <hr/> <p>For standard installation, use a minimum of a 4-core processor, 8 GB RAM, and 512 GB disk.</p> <ul style="list-style-type: none">• If you only intend to use the Broker VM for the agent proxy, you can use a 2-core processor.• If you intend to use the Broker VM for the agent installer and content caching, you must use a minimum of an 8-core processor and increase the disk space allocated for data storage to 1024 GB. For more information, see Increase Broker VM storage allocated for data caching. <p>The computer system’s memory stores programming instructions that, when operating on the processor, cause the processor to perform the steps further discussed below.</p>
automatically install a virtual appliance software application,	<p>The programming instructions of the Accused ’663 Products cause the processor to automatically install a virtual appliance software application.</p> <p>For example, PAN’s documentation explains that Broker “automatically receives updates and enhancements from Cortex XDR, providing you with new capabilities without having to install a new VM or manually update the existing VM”:⁴</p>

³ *Id.*

⁴ *Id.*

	<div> <h2>Edit Broker VM Configuration</h2> </div> <div> </div> <div> <p>After configuring and registering your Broker VM, you can edit existing configurations and define additional settings in the Broker VMs page in the Brokers tab. When you have a high availability (HA) cluster configured, you can also edit any Broker VM nodes configurations in the Clusters tab from the Broker VMs table under the Cluster.</p> </div> <div> <p>Perform the following procedures in the order listed below.</p> </div> <div> <p>Task 1. Open the Configurations page for the Broker VM</p> </div> <div> <ol style="list-style-type: none"> 1. Select Settings → Configurations → Data Broker → Broker VMs. 2. In the Broker VMs table, locate your Broker VM, right-click, and select Configure. </div> <div> <p>If the Broker VM is disconnected, you can only View the configurations.</p> </div>
<p>establish a secure network connection to an external network;</p>	<p>The programming instructions of the Accused '663 Products cause the processor to establish a secure network connection to an external network.</p>

For example, PAN's documentation explains that Broker uses the Secure Sockets Layer ("SSL") security protocol to establish a secure network connection to the cloud.⁷ The secure network connection is further shown in the following conceptual diagram:⁸



⁷ Palo Alto Networks, *Set up and configure Broker VM*, available at <https://docs-cortex.paloaltonetworks.com/r/Cortex-XSIAM/Cortex-XSIAM-Docmentation/Set-up-and-configure-Broker-VM> [hereinafter *Configure Broker VM*].

⁸ *What is the Broker VM?*

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	PAN's documentation explains that "[b]y setting up the Broker VM, you establish a secure connection in which you can route your endpoints, collect logs, and forward logs and files for analysis." ⁹
receive data over a local network from a plurality of computing devices;	<p>The Accused '663 Products contain programming instructions that cause the processor to receive data over a local network from a plurality of computing devices.</p> <p>For example, PAN's documentation explains that Broker receives logs from multiple endpoints, including via data collector applets for Apache Kafka; CSV log files; databases such as MySQL, PostgreSQL, MSSQL, and Oracle; filesystems; FTP servers; NetFlow flow records; and Windows Events, among other endpoints.¹⁰</p> <p>PAN's documentation explains that "[b]y setting up the Broker VM, you establish a secure connection in which you can route your endpoints, collect logs, and forward logs and files for analysis."¹¹</p> <p>The following diagram reproduced from PAN's documentation shows an exemplary plurality of computing resources from which Broker VM receives data over a local network:¹²</p>

⁹ *Id.*

¹⁰ Palo Alto Networks, *Broker VM data collector applets*, available at <https://docs-cortex.paloaltonetworks.com/r/Cortex-XDR/Cortex-XDR-3.x-Documents/Broker-VM-data-collector-applets> [hereinafter *Data Collector Applets*].

¹¹ *What is the Broker VM?*

¹² *Id.*

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retransmit the received data over the secure connection as a single data stream.	<p>The Accused '663 Products contain programming instructions that cause the processor to retransmit the received data over the secure connection as a single data stream.</p> <p>For example, PAN documentation explains that Broker uses SSL to connect to the cloud in order to, among other purposes, “forward logs and files for analysis” in Cortex XDR.¹⁵</p>
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¹⁵ *Configure Broker VM.*