



# Advisory Alert

Alert Number: AAA20211221

Date: December 21, 2021

Document Classification Level : Public Circulation Permitted | Public

Information Classification Level : TLP: WHITE

## Overview

Product	Severity	Vulnerability
Multiple Products	Critical	Multiple Vulnerabilities

## Description

Affected Product	Multiple Products
Severity	Critical
Affected Vulnerability	Multiple Vulnerabilities (CVE-2021-44228, CVE-2021-45046, CVE-2021-45105, CVE-2021-4104)
Description	<p>CVE-2021-44228 - An unauthenticated, remote attacker could exploit this flaw by sending a specially crafted request to a server running a vulnerable version of log4j. The specially crafted request uses a Java Naming and Directory Interface (JNDI) injection via Lightweight Directory Access Protocol (LDAP), Secure LDAP (LDAPS), Remote Method Invocation (RMI), Domain Name Service (DNS). Successful exploitation of this Vulnerability could allow a remote attacker to execute arbitrary code and lead to gain full control of the targeted servers.</p> <p>CVE-2021-45046 - Apache Log4j is vulnerable to a denial of service, caused by an incomplete fix of CVE-2021-44228 in certain non-default configurations. A remote attacker with control over Thread Context Map (MDC) input data or a Thread Context Map pattern to exploit this vulnerability to craft malicious input data using a JNDI Lookup pattern and cause a denial of service.</p> <p>CVE-2021-45105 - Apache Log4j2 versions 2.0-alpha1 through 2.16.0 (excluding 2.12.3) did not protect from uncontrolled recursion from self-referential lookups. This allows an attacker with control over Thread Context Map data to cause a denial of service when a crafted string is interpreted</p> <p>CVE-2021-4104 - Apache Log4j could allow a remote attacker to execute arbitrary code on the system, caused by the deserialization of untrusted data when the attacker has write access to the Log4j configuration. If the deployed application is configured to use JMSAppender, an attacker could exploit this vulnerability to execute arbitrary code on the system.</p> <p>The vulnerability has been exploited in the wild, Users are highly recommended to update to the latest version to mitigate the risk associated with the flaws.</p>

## Affected Products

<p><b>Juniper</b></p> <p>Juniper Networks Cross Provisioning Platform  Juniper Networks Juniper Secure Analytics Risk Manager  Juniper Networks Network and Security Manager (NSM)  Juniper Networks WANDL IP/MPLSView  Juniper Networks BTI proNX Service Manager Software  Juniper Networks JSA Series User Behavior Analytics  Juniper Networks Junos Space Network Management Platform when OpenNMS has been enabled.  Juniper Networks NorthStar Controller / NorthStar Planner  Juniper Networks Paragon Pathfinder  Juniper Networks Paragon Planne</p>	<p><b>Cisco</b></p> <p>Collaboration and Social Media  Endpoint Clients and Client Software  Network Application, Service, and Acceleration  Network and Content Security Devices  Network Management and Provisioning  Routing and Switching - Enterprise and Service Provider  Unified Computing  Voice and Unified Communications Devices  Video, Streaming, TelePresence, and Transcoding Devices  Wireless</p>
<p><b>INTEL</b></p> <p>Intel Audio Development Kit  Intel Datacenter Manager  Intel oneAPI sample browser plugin for Eclipse  Intel System Debugger  Intel Secure Device Onboard  Intel Genomics Kernel Library  Intel System Studio  Computer Vision Annotation Tool maintained by Intel  Intel Sensor Solution Firmware Development Kit</p>	<p><b>Fortinet</b></p> <p>FortiAIops  FortiCASB  FortiConverter Portal  FortiCWP  FortiEDR Cloud  FortiInsight  FortiIsolator  FortiMonitor  FortiPortal  FortiSIEM  ShieldX</p>
<p><b>DELL</b></p> <p>Multiple Products</p>	<p><b>HP</b></p> <p>Multiple Products</p>
<p><b>Oracle</b></p> <p>Java SE Version Prior to 6u212  Java SE Version Prior to 7u202  Java SE Version Prior to 8u192  Java SE Version Prior to 11.0.2</p>	<p><b>IBM</b></p> <p>WebSphere Application Server  IBM Security Guardium  IBM Spectrum Protect Backup-Archive Client and IBM Spectrum Protect for Virtual Environments  IBM Tivoli Monitoring  IBM Spectrum Copy Data Management  IBM QRadar SIEM</p>
<p><b>PaloAlto</b></p> <p>PAN-OS for Panorama  Exact Data Matching CLI</p>	<p><b>RedHat</b></p> <p>Red Hat OpenShift Container Platform 4.6, 4.7, 4.8  OpenShift Logging 5.0, 5.1, 5.2, 5.3  Red Hat JBoss Enterprise Application Platform 7  Red Hat Process Automation 7  Red Hat AMQ Streams 1  Red Hat CodeReady Studio 12  Red Hat Integration Camel K  Red Hat Integration Camel Quarkus  Red Hat JBoss Fuse 7  Red Hat OpenShift Application Runtimes 1.0  Red Hat AMQ Streams 1</p>
<p><b>VMware</b></p> <p>VMware Horizon  VMware vCenter Server  VMware HCX  VMware NSX-T Data Center  VMware Unified Access Gateway  VMware WorkspaceOne Access</p>	<p><b>Citrix</b></p> <p>Citrix Endpoint Management (Citrix XenMobile Server)  Citrix Virtual Apps and Desktops (XenApp &amp; XenDesktop)</p>

	<p>VMware Identity Manager</p> <p>VMware vRealize Operations</p> <p>VMware vRealize Operations Cloud Proxy</p> <p>VMware vRealize Automation</p> <p>VMware vRealize Lifecycle Manager</p> <p>VMware Site Recovery Manager, vSphere Replication</p> <p>VMware Carbon Black Cloud Workload Appliance</p> <p>VMware Carbon Black EDR Server</p> <p>VMware Tanzu GemFire</p> <p>VMware Tanzu GemFire for VMs</p> <p>VMware Tanzu Greenplum</p> <p>VMware Tanzu Operations Manager</p> <p>VMware Tanzu Application Service for VMs</p> <p>VMware Tanzu Kubernetes Grid Integrated Edition</p> <p>VMware Tanzu Observability by Wavefront Nozzle</p> <p>Healthwatch for Tanzu Application Service</p> <p>Spring Cloud Services for VMware Tanzu</p> <p>Spring Cloud Gateway for VMware Tanzu</p> <p>Spring Cloud Gateway for Kubernetes</p> <p>API Portal for VMware Tanzu</p> <p>Single Sign-On for VMware Tanzu Application Service</p> <p>App Metrics</p> <p>VMware vCenter Cloud Gateway</p> <p>VMware vRealize Orchestrator</p> <p>VMware Cloud Foundation</p> <p>VMware Workspace ONE Access Connector</p> <p>VMware Horizon DaaS</p> <p>VMware Horizon Cloud Connector</p> <p>VMware NSX Data Center for vSphere</p> <p>VMware AppDefense Appliance</p> <p>VMware Cloud Director Object Storage Extension</p> <p>VMware Telco Cloud Operations</p> <p>VMware vRealize Log Insight</p> <p>VMware Tanzu Scheduler</p> <p>VMware Smart Assurance NCM</p> <p>VMware Smart Assurance SAM [Service Assurance Manager]</p> <p>VMware Integrated OpenStack</p> <p>VMware vRealize Business for Cloud</p> <p>VMware vRealize Network Insight</p> <p>VMware Cloud Provider Lifecycle Manager</p> <p>VMware SD-WAN VCO</p> <p>VMware NSX-T Intelligence Appliance</p>	<p><b>Sonicwall</b></p> <p>Sonicwall Email Security</p> <p>Sonicwall NSM</p> <p>Sonicwall WAF</p>
--	---	---

Officially Acknowledged by the Vendor	Yes
Patch/ Workaround Released	Yes

Reference	<p><b>Fortinet</b>  <a href="https://www.fortiguard.com/psirt/FG-IR-21-245">https://www.fortiguard.com/psirt/FG-IR-21-245</a></p> <p><b>Juniper</b>  <a href="https://kb.juniper.net/InfoCenter/index?page=content&amp;id=JSA11259&amp;cat=SIRT_1&amp;act=LIST">https://kb.juniper.net/InfoCenter/index?page=content&amp;id=JSA11259&amp;cat=SIRT_1&amp;act=LIST</a></p> <p><b>Cisco</b>  <a href="https://tools.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-apache-log4j-qRuKNEbd">https://tools.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-apache-log4j-qRuKNEbd</a></p> <p><b>Oracle</b>  <a href="https://www.oracle.com/security-alerts/alert-cve-2021-44228.html">https://www.oracle.com/security-alerts/alert-cve-2021-44228.html</a></p> <p><b>PaloAlto</b>  <a href="https://security.paloaltonetworks.com/CVE-2021-44228">https://security.paloaltonetworks.com/CVE-2021-44228</a></p> <p><b>IBM</b>  <a href="https://www.ibm.com/support/pages/node/6527082">https://www.ibm.com/support/pages/node/6527082</a>  <a href="https://www.ibm.com/support/pages/node/6527080">https://www.ibm.com/support/pages/node/6527080</a>  <a href="https://www.ibm.com/support/pages/node/6527962">https://www.ibm.com/support/pages/node/6527962</a>  <a href="https://www.ibm.com/support/pages/node/6527830">https://www.ibm.com/support/pages/node/6527830</a></p>
-----------	---

<https://www.ibm.com/support/pages/node/6526640>  
<https://www.ibm.com/support/pages/node/6526750>

**DELL**

<https://www.dell.com/support/kbdoc/en-us/000194414/dell-response-to-apache-log4j-remote-code-execution-vulnerability>  
<https://www.dell.com/support/kbdoc/en-us/000194544/dsa-2021-287-dell-emc-srs-policy-manager-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>  
<https://www.dell.com/support/kbdoc/en-us/000194503/dsa-2021-274-dell-emc-data-domain-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>  
<https://www.dell.com/support/kbdoc/en-us/000194466/dsa-2021-265-dell-emc-vxrail-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>  
<https://www.dell.com/support/kbdoc/en-us/000194416/additional-information-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>  
<https://www.dell.com/support/kbdoc/en-us/000194541/dsa-2021-280-dell-emc-networker-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>  
<https://www.dell.com/support/kbdoc/en-us/000194630/dsa-2021>  
<https://www.dell.com/support/kbdoc/en-us/000194627/dsa-2021-297-dell-emc-streaming-data-platform-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228-cve-2021-45046>  
<https://www.dell.com/support/kbdoc/en-us/000194638/dsa-2021-275-dell-emc-openmanage-enterprise-security-update-for-apache-log4j-remote-code-execution-vulnerability-cve-2021-44228>

**INTEL**

<https://www.intel.com/content/www/us/en/security-center/advisory/intel-sa-00646.html>

**HP**

[https://support.hpe.com/hpesc/public/docDisplay?docLocale=en\\_US&docId=hpesbgn04215en\\_us](https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=hpesbgn04215en_us)

**RedHat**

<https://access.redhat.com/security/cve/CVE-2021-44228>

**Citrix**

<https://support.citrix.com/article/CTX335705>

**VMware**

<https://www.vmware.com/security/advisories/VMSA-2021-0028.html>

**Sonicwall**

<https://psirt.global.sonicwall.com/vuln-detail/SNWLID-2021-0032>

**Disclaimer**

The information provided herein is on "as is" basis, without warranty of any kind. FinCSIRT highly recommend to follow the company policies and procedures when applying the necessary patches with thorough testing and ensuring proper roll-back capabilities exists.