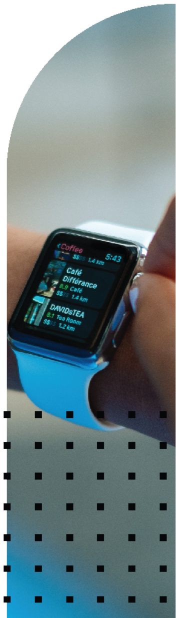
Vulnerability Scans

FortiSIEM 6.3.3



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FortiSIEM 6.3.3 Vulnerability Scans

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Change Log

Date	Change Description
04/17/2018	Initial version of the document.
03/25/2019	Revision 1: Removed "FortiSIEM Configuration" section.
08/19/2019	Revision 2: Updated the location of the image download site.
11/20/2019	Vulnerability Scans released for 5.2.6.
02/11/2020	Revision 3: Added the section Validating Vulnerability Scan Results.
03/30/2020	Revision 4: Release for 5.3.0. Added section for configuring Rapid7 for vulnerability scans.
03/23/2021	Revision 5: Release for 6.2.0.
07/06/2021	Revision 6: Release for 6.3.0.
08/26/2021	Revision 7: Release for 6.3.1.
10/15/2021	Revision 8: Release for 6.3.2.
12/22/2021	Revision 9: Release for 6.3.3.

Running Vulnerability Scans against FortiSIEM

This document provides information about the configurations for running vulnerability scans against FortiSIEM.

- Qualys Configuration
- Nessus Configuration
- Rapid7 Configuration

Qualys Configuration

Logon to Qualys Vulnerability Management and follow the steps below to run a Vulnerability scan:

Step 1: Configure Scan Profile

1. Go to **Scans** > **Option Profiles** and click **New** > **PCI Option Profile**.
2. On the 'New PCI Option Profile' window, click the **Scan** tab.
3. Select ‘Unix/Cisco’ Authentication.
4. Click **Save**.

Step 2: Setup Host Authentication

1. Go to **Scans** > **Authentication** and click **New** > **Unix Record**.
2. On the 'New Unix Record' pop-up, add the login credentials.
3. Click the **IPs** tab and enter the Host IPs and click **Create**.

Step 3: Add Host IPs to Scan

1. Go to **Assets** > **Host Assets**.
2. Click **New** > **IP Tracked Hosts**.
3. Enter the new **Host IPs** and click **Add**.

Step 4: Launch Vulnerability Scan

1. Go to **Scans** > **Scans** tab.
2. Click **New** > **Scans** and select the **Option Profile** added in step #2.
3. Select Host IPs that added in step #2.
4. Click **Launch** to start the scan.

Nessus Configuration

Logon to Tenable Nessus Scanner UI and follow the steps below to run a Vulnerability scan:

Step 1: Configure Scan and Host IP

1. Go to **Scans** and click **New Scan** > **Advanced Network Scan**.
2. Under **Settings** tab, enter the information about the new scan including the FortiSIEM Host IP under **Targets**.
3. Click **Save**.

Step 2: Setup Host Authentication

1. Go to **Scans** and select the Scan added in Step #1.
2. Click **Configure**.
3. Under the **Credentials** tab, click **SSH** and enter the FortiSIEM credentials.
4. Click **Save**.

Step 3: Launch Vulnerability Scan

1. Go to **Scans** and select the Scan from Step #1.
2. Click the **Launch** icon to start the scan.

Rapid7 Configuration

Logon to Rapid7 insightVM (Advanced Vulnerability Management Analytics and Reporting) and follow these steps to run a Vulnerability scan:

Step 1: Install Rapid7 Insight Agent on FortiSIEM

1. Logon to Rapid7 insightVM (Advanced Vulnerability Management Analytics and Reporting).
2. Go to the **Agent Management** page, then select **Add New > Agent**.
3. Download the Rapid7 Linux Agent and copy it to FortiSIEM.
4. SSH to FortiSIEM and install Rapid7 Insight Agent with Token, for example:
   ```
   sudo ./agent_installer.sh install_start --token us:bf870020-ef0b-41de-9c9e-
   da45237c214d
   ```

Step 2: Validate FortiSIEM Vulnerability Scan Results

1. In the Rapid7 insightVM UI, go to the **Agent Management** page and check the recently installed Agent.
2. Go to the insightVM default dashboard.
3. In the **Newly discovered Assets** gadget, click **Assets**.
4. In the **Assets** list, click the FortiSIEM hostname.
5. On the **Asset Details** page, validate the list of vulnerabilities.

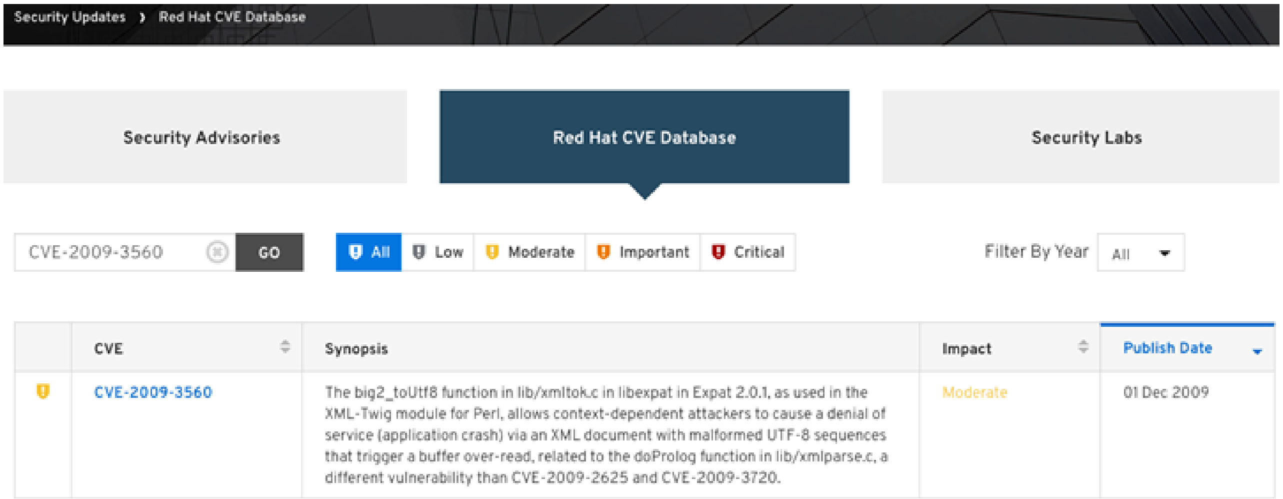
Validating Vulnerability Scan Results

The following sections describe how to validate vunerability scan results:

- Find the CVE Information in the RedHat Database
- Validate Redhat Fixed Vulnerabilities in FortiSIEM

Find the CVE Information in the RedHat Database

1. Log in to the Vulnerability scanner.
2. Run a Vulnerability scan against FortiSIEM. See Running Vulnerability Scans against FortiSIEM.
3. In the Vulnerability results, check for the CVE number on each vulnerability and search the noted CVE number in the Redhat database.



	CVE	Synopsis	Impact	Publish Date
🛡	CVE-2009-3560	The big2_toUtf8 function in lib/xmltok.c in libexpat in Expat 2.0.1, as used in the XML-Twig module for Perl, allows context-dependent attackers to cause a denial of service (application crash) via an XML document with malformed UTF-8 sequences that trigger a buffer over-read, related to the doProlog function in lib/xmlparse.c, a different vulnerability than CVE-2009-2625 and CVE-2009-3720.	Moderate	01 Dec 2009

4. Click the CVE number in the search results to get detailed information.
5. Check the **Affected Packages State** in the Redhat CVE report for **Red Hat Enterprise Linux 6** platform (note that CentOS 6 is the same as RHEL 6).
6. In the above example CVE-2009-3560, **Red Hat Enterprise Linux 6** platform is **Not affected.** See the following table of affected package states.

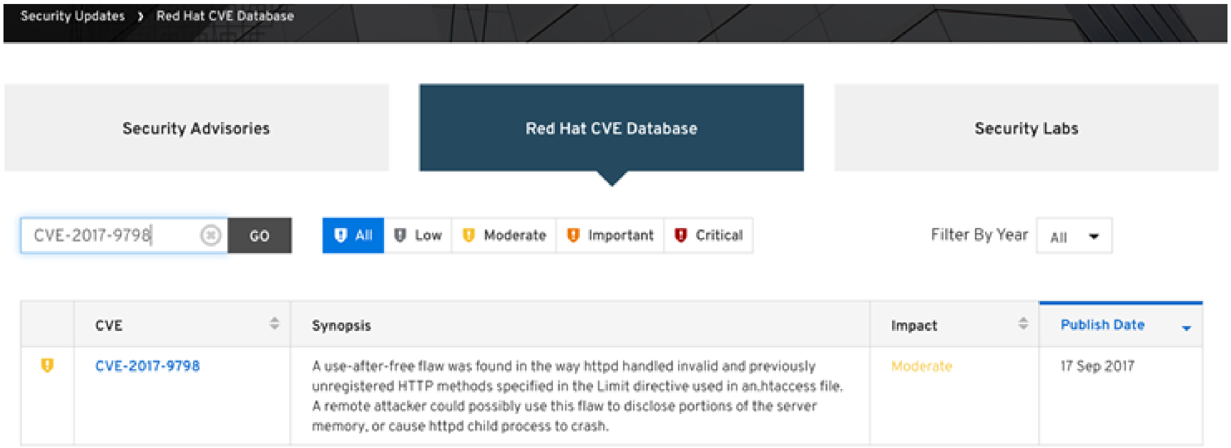
Affected Package States

Platform	Package	State
Red Hat Enterprise Linux 7	expat	Not affected
Red Hat Enterprise Linux 6	expat	Not affected
Red Hat Enterprise Linux 6	compat-epat1	Not affected
Red Hat Enterprise Linux 5	xmlrpc-c	Will not fix

7. The Redhat database can return the following types of results:
   - **Not affected** – Vulnerability scanner reported a false alarm.
   - **Will not fix** – Redhat will not fix these vulnerabilities either due to a low CVSS score, or the platform might have reached end of support.
   - **Fixed/Patch available** – Redhat has already provided a fix for these vulnerabilities.
8. You can ignore vulnerabilities that are reported as **Not affected.** You will need to create a vulnerability exception for CVEs that are marked as **Will not fix** by Redhat. For **Fixed** vulnerabilities, follow the instructions in Validate Redhat Fixed vulnerabilities in FortiSIEM.

Validate Redhat Fixed Vulnerabilities in FortiSIEM

1. From the Vulnerability scanner report, find a CVE number on vulnerability and search for the number in the Redhat database.
2. Perform the following steps if Redhat provides a patch (Security Errata):
   a. SSH to the FortiSIEM instances and the check installed packages.
   Example: search for **CVE-2017-9798** in the Redhat database.



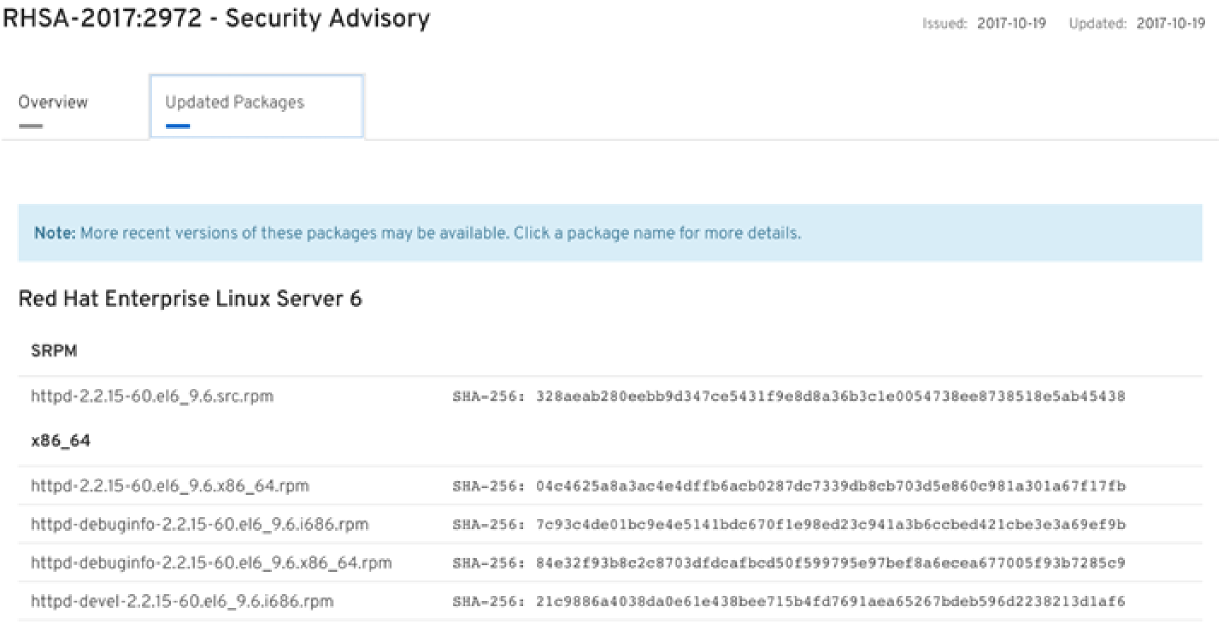
	CVE	Synopsis	Impact	Publish Date
	CVE-2017-9798	A use-after-free flaw was found in the way httpd handled invalid and previously unregistered HTTP methods specified in the Limit directive used in an.htaccess file. A remote attacker could possibly use this flaw to disclose portions of the server memory, or cause httpd child process to crash.	Moderate	17 Sep 2017

   b. Click **CVE-2017-9798** and check the Redhat security errata for **Red Hat Enterprise Linux 6**. See the following table.
   Red Hat Security Errata

Platform	Errata	Release Date
Red Hat JBoss Enterprise Application Platform 6.4	RHSA-2017:3239	2017-11-16
Red Hat Software Collections for Red Hat Enterprise Linux 6 (httpd24-httpd)	RHSA-2017:3018	2017-10-24
Red Hat Enterprise Linux Extended Update Support 6.7 (httpd)	RHSA-2017:3195	2017-11-13
Red Hat Enterprise Linux Extended Update Support 7.2 (httpd)	RHSA-2017:3193	2017-11-13
Red Hat JBoss Web Server	RHSA-2017:3114	2017-11-02
Red Hat JBoss Enterprise Web Server 2 for RHEL 7 Server	RHSA-2017:3113	2017-11-02

Platform	Errata	Release Date
Red Hat JBoss Enterprise Web Server 2 for RHEL 6 Server (httpd)	RHSA-2017:3113	2017-11-02
Red Hat Enterprise Linux 6 (httpd)	RHSA-2017:2972	2017-10-19

c. Click the **RHSA-2017:2972** link, open the **Updated Packages** tab, and note the packages that are updated.



RHSA-2017:2972 - Security Advisory

Issued: 2017-10-19 Updated: 2017-10-19

Note: More recent versions of these packages may be available. Click a package name for more details.

Red Hat Enterprise Linux Server 6

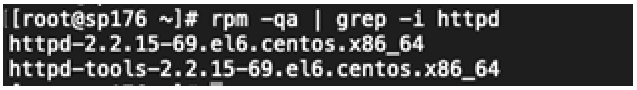
SRPM

httpd-2.2.15-60.el6_9.6.src.rpm	SHA-256: 328aeab280eebb9d347ce5431f9e8d8a36b3c1e0054738ee8738518e5ab45438

x86_64

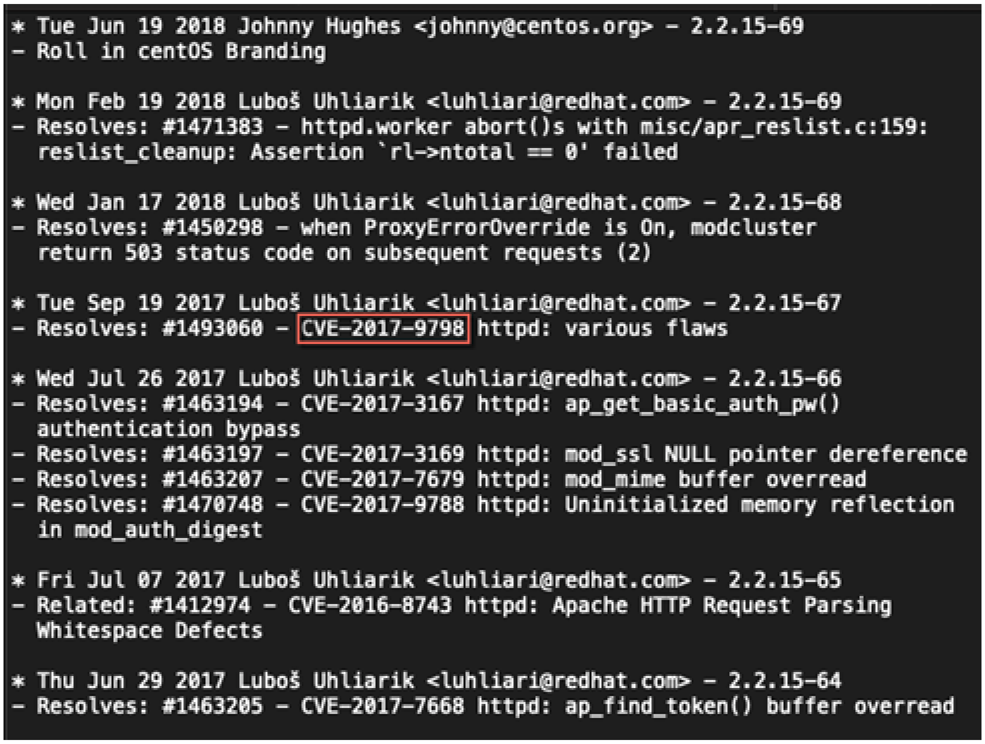
httpd-2.2.15-60.el6_9.6.x86_64.rpm	SHA-256: 04c4625a8a3ac4e4dffb6acb0287dc7339db8cb703d5e860c981a301a67f17fb
httpd-debuginfo-2.2.15-60.el6_9.6.i686.rpm	SHA-256: 7c93c4de01bc9e4e5141bdc670f1e98ed23c941a3b6ccbed421cbe3e3a69ef9b
httpd-debuginfo-2.2.15-60.el6_9.6.x86_64.rpm	SHA-256: 84e32f93b8c2c8703dfdcafbcd50f599795e97bef8a6ecea677005f93b7285c9
httpd-devel-2.2.15-60.el6_9.6.i686.rpm	SHA-256: 21c9886a4038da0e61e438bee715b4fd7691aea65267bdeb596d2238213d1af6

d. SSH to the FortiSIEM instance and find installed **httpd** packages (based on the example) by running the `rpm -qa | grep -i httpd` command:



```
[root@sp176 ~]# rpm -qa | grep -i httpd
httpd-2.2.15-69.el6.centos.x86_64
httpd-tools-2.2.15-69.el6.centos.x86_64
```

e. Check the installed **httpd** package change log to find the **CVE-2017-9798** fixes by running the `rpm -q --changelog httpd | less` command:



```
* Tue Jun 19 2018 Johnny Hughes <johnny@centos.org> - 2.2.15-69
- Roll in centOS Branding

* Mon Feb 19 2018 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-69
- Resolves: #1471383 - httpd.worker abort()s with misc/apr_reslist.c:159:
  reslist_cleanup: Assertion `rl->ntotal == 0' failed

* Wed Jan 17 2018 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-68
- Resolves: #1450298 - when ProxyErrorOverride is On, modcluster
  return 503 status code on subsequent requests (2)

* Tue Sep 19 2017 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-67
- Resolves: #1493060 - CVE-2017-9798 httpd: various flaws

* Wed Jul 26 2017 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-66
- Resolves: #1463194 - CVE-2017-3167 httpd: ap_get_basic_auth_pw()
  authentication bypass
- Resolves: #1463197 - CVE-2017-3169 httpd: mod_ssl NULL pointer dereference
- Resolves: #1463207 - CVE-2017-7679 httpd: mod_mime buffer overread
- Resolves: #1470748 - CVE-2017-9788 httpd: Uninitialized memory reflection
  in mod_auth_digest

* Fri Jul 07 2017 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-65
- Related: #1412974 - CVE-2016-8743 httpd: Apache HTTP Request Parsing
  Whitespace Defects

* Thu Jun 29 2017 Luboš Uhliarik <luhliari@redhat.com> - 2.2.15-64
- Resolves: #1463205 - CVE-2017-7668 httpd: ap_find_token() buffer overread
```

f. In the above example, the **CVE-2017-9798** patch is already available in FortiSIEM.

Mitigating Found Vulnerabilities

If the CVE number does not exist in the changelog, then follow these steps to perform a FortiSIEM OS update:

1. If the CVE number is not included in the changelog list or the installed package is an older version, perform a FortiSIEM OS update. See FortiSIEM - OS Update Lifecycle.
2. After the FortiSIEM OS update, repeat Step #2 in the previous section, Validate Redhat Fixed Vulnerabilities in FortiSIEM.
3. Contact FortiSIEM support if the CVE number is not listed in the changelog after the OS update.

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