

# One Identity Safeguard for Privileged Sessions 7.0 LTS

## Release Notes

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These release notes provide information about the One Identity Safeguard for Privileged Sessions release. For the most recent documents and product information, see [One Identity Safeguard for Privileged Sessions - Technical Documentation](#).

## About this release

One Identity Safeguard for Privileged Sessions Version 7.0 LTS is a long-term supported feature release with new features and resolved issues. For details, see:

- [New features](#)
- [Resolved issues](#)
- [Known issues](#)

**NOTE:** For a full list of key features in One Identity Safeguard for Privileged Sessions, see [Administration Guide](#).

## About the Safeguard product line

The One Identity Safeguard Appliance is built specifically for use only with the Safeguard privileged management software, which is pre-installed and ready for immediate use. The appliance is hardened to ensure the system is secured at the hardware, operating system and software levels. The hardened appliance approach protects the privileged management software from attacks while simplifying deployment and ongoing management -- and shortening the timeframe to value.

## Safeguard privileged management software suite

Safeguard privileged management software is used to control, monitor, and govern privileged user accounts and activities to identify possible malicious activities, detect entitlement risks, and provide tamper proof evidence. The Safeguard products also aid incident investigation, forensics work, and compliance efforts.

The Safeguard products' unique strengths are:

- One-stop solution for all privileged access management needs
- Easy to deploy and integrate
- Unparalleled depth of recording
- Comprehensive risk analysis of entitlements and activities
- Thorough Governance for privileged account

The suite includes the following modules:

- **One Identity Safeguard for Privileged Passwords** automates, controls and secures the process of granting privileged credentials with role-based access management and automated workflows. Deployed on a hardened appliance, Safeguard for Privileged Passwords eliminates concerns about secured access to the solution itself, which helps to speed integration with your systems and IT strategies. Plus, its user-centered design means a small learning curve and the ability to manage passwords from anywhere and using nearly any device. The result is a solution that secures your enterprise and enables your privileged users with a new level of freedom and functionality.

- **One Identity Safeguard for Privileged Sessions** is part of One Identity's Privileged Access Management portfolio. Addressing large enterprise needs, Safeguard for Privileged Sessions is a privileged session management solution, which provides industry-leading access control, as well as session monitoring and recording to prevent privileged account misuse, facilitate compliance, and accelerate forensics investigations.

Safeguard for Privileged Sessions is a quickly deployable enterprise appliance, completely independent from clients and servers - integrating seamlessly into existing networks. It captures the activity data necessary for user profiling and enables full user session drill-down for forensics investigations.

- **One Identity Safeguard for Privileged Analytics** integrates data from Safeguard for Privileged Sessions to use as the basis of privileged user behavior analysis. Safeguard for Privileged Analytics uses machine learning algorithms to scrutinize behavioral characteristics and generates user behavior profiles for each individual privileged user. Safeguard for Privileged Analytics compares actual user activity to user profiles in real time and profiles are continually adjusted using machine learning. Safeguard for Privileged Analytics detects anomalies and ranks them based on risk so you can prioritize and take appropriate action - and ultimately prevent data breaches.

# New features

## New features in One Identity Safeguard for Privileged Sessions (SPS) version 7.0 LTS:

- SPS licensing

The new SPS license has the following license options:

- Basic proxies
- Sudo iolog
- Analytics

No HA license is required anymore and license upload does not require traffic restart.

SPS does not run an active license check for the ongoing traffic sessions and the license limits are evaluated on demand.

The license update will stop the services of the disabled license options.

- Credential injection

The RDP Application session initiated on the SPP side provides the password automatically for the RemoteApp Launcher.

To use credential injection, use a connection policy for the RDP Application session that has the `Credential injection` flag selected.

- Data migration from an SPS instance to another SPS instance

If you need to switch from an One Identity Safeguard for Privileged Sessions (SPS) instance to another SPS instance, for example, your SPS appliance is old and you want to switch it to a new one, you can use the console menu to copy all data between SPS instances.

For more information, see *Data migration from an SPS instance to another SPS instance* in the *Administration Guide*.

- Configuring custom AA plugins in connection policies shared with SPP

For more information, see *Sharing RDP connection policies with SPP* and *Sharing SSH connection policies with SPP* in the *Administration Guide*.

## Other improvements:

- The SPS login pane is visually improved. All available login methods are now organized in a drop-down menu.
- If you create a new authentication method, SPS automatically fills out the **Script reference** field when you specify the name of the login method for the first time.
- The **Cleanup** option has been separated from the **Archive** option. Using the **Cleanup** option, you can delete the `.zat` file and the corresponding metadata of the sessions.

You can set the cleanup time in **Connections**, or under **Global Options**.

## Changes and improvements in SPS REST API Reference Guide version 7.0 LTS:

- Listing available login methods. List login methods (local, LDAP, RADIUS, or x509) to determine which login methods are available to you to authenticate to SPS. For more information, see *Listing SPS login methods* and *Authenticate to the SPS REST API* in the *SPS REST API Reference Guide*.
- Downloading and installing SPS firmware through HTTP. To avoid having to manually upload large SPS firmware ISO files before upgrading, download and install SPS firmware files by providing a URL through the SPS REST API. You can download a single file, or download multiple files simultaneously. For more information, see *Downloading and installing SPS firmware through HTTP* in the *SPS REST API Reference Guide*.
- Enhanced appliance health status monitoring. New parameters have been added to monitor RAID and indexer capabilities. For more information, see *Monitor appliance health status* in the *SPS REST API Reference Guide*.
- Creating statistics from custom queries using the `/api/configuration/reporting/custom_subchapters` endpoint has been deprecated.

## Deprecated features

### Apache lucene database

In SPS 7.0 LTS, One Identity modified the search for screen content in session data to use the Elasticsearch database only. The Apache lucene database support is phased out, but the query language remained lucene-like.

After the switch to the Elasticsearch database, you will be able to access content stored in an Apache lucene database only if you regenerate the content with the reindex tool. For more information, see [Regenerate content stored in lucene indices](#).

Due to the removal of lucene indices, users are not able to search for content in lucene indices with the **content request** parameter on the `/api/audit/sessions` and `/api/audit/sessions/stats` endpoints.

For more information, see ["Searching in the session database" in the REST API Reference Guide](#) and ["Session statistics" in the REST API Reference Guide](#).

Additionally, in **Reporting**, statistics subchapters that included the **audit\_content** filter will not work. Alternatively, you can use Search-based subchapters with the **screen.content** filter to create statistic reports from connection metadata that included a specific content in the audit trail.

For more information, see ["Creating search-based report subchapters from search results" in the Administration Guide](#).

### Content search option deprecation

On the **Search** page, the **Content search** option has been deprecated.

## Advanced statistics

Creating statistics from custom queries using the **Reporting > View & edit subchapters > Advanced statistics** page has been deprecated. The `/api/configuration/reporting/custom_subchapters` REST API endpoint has also been deprecated.

During the upgrade process, existing advanced statistics subchapters and their references are removed from the SPS configuration. Additionally, advanced statistics ACLs assigned to user groups are also removed from the SPS configuration. Note that if a user group only had the advanced statistics ACL assigned under **Users & Access Control > Appliance Access**, the whole ACL entry is removed during the upgrade process.

Alternatively, you can use search-based subchapters to query connection metadata. For more information, see ["Creating search-based report subchapters from search results" in the Administration Guide](#).

## Resolved issues

The following is a list of issues addressed in this release.

**Table 1: General resolved issues in release 7.0 LTS**

Resolved Issue	Issue ID
An error message or a blank page is displayed when visiting the user interface the first time after an upgrade.  Due to an error, the previous versions of SPS redirected the users to the login page with a permanent redirect. Since the browsers remembered this information and the URL was not available anymore, SPS showed a blank page or an error message on the first visit of the user interface after an upgrade. This has been fixed and SPS now correctly redirects to the login page.	PAM-16656
Copying files over the clipboard in RDP could cause all connections to terminate.  In some rare edge cases, copying files to or from an RDP session host using clipboard copy and paste could cause all RDP connections to terminate during the paste operation. In this case, a core file was generated. The issue was caused by an insufficient safety check, in case the RDP client or server requested an invalid file from the clipboard.  This has been fixed by correcting the safety check. In case of an invalid paste request, the message "Invalid file index in cliprdr file content request" will appear in the system log, and the request will be dropped properly in all cases.	PAM-16569
Online player video share did not work.	PAM-16519

Resolved Issue	Issue ID
Video share did not work when the other user was not logged into the SPS. This issue has been fixed.	
Generated reports displayed session start and session end times only with month precision.  A previous patch for "Session history" and "Verdicts history by sessions" subchapters that fixed the resolution of charts for daily reports unfortunately had an unwanted side effect that caused other subchapters that displayed session start and session end times like "Top 10 longest sessions" or "Top 10 shortest sessions" to display session start and session end times only with month precision as opposed to second precision.  This has been fixed and reports generated now display session start and session end times with second precision.	PAM-16485
SPS falsely displayed the "Play video" button and screenshot viewing possibilities for mssql sessions.  The features for playing video or displaying screenshots for mssql sessions have not yet been implemented.	PAM-16461
If there is no license configured, then the firmware test denies the upgrade without displaying the reason.  When there was no license configured, and you clicked the Test firmware icon, or at Basic Settings/System/Firmwares you selected a different firmware to be active after the reboot, then the firmware test failed, but none of the test results indicated any problems. This issue has been fixed.	PAM-16450
Audited connections, mostly RDP, could fail to write the audit trail and connection could be terminated.  In certain cases, auditing a connection could run into an issue when the audited traffic contained an overly large message. In this case, auditing failed, and the connection was terminated.  Also, the message "Failed to send request to audit writer service;" was added to the system log.  The issue mostly affected RDP clipboard transfers, for example when image data was copied between the RDP session host and the RDP client host.  This issue has been mitigated, by increasing the limit of single transfers to 128 megabytes, which allows copying uncompressed 4K 32bpp images in RDP. Also, logging has been improved to help determine if a connection closed due to this limit.	PAM-16379
Setting a server certificate or private key in the last step of the Welcome Wizard fails with an error.	PAM-16282

Resolved Issue	Issue ID
The web server's certificate and private key can be configured in the last step of the Welcome Wizard before finishing it, but due to an error, it was not possible to set a custom certificate and key pair, or to view the automatically generated one. This has been fixed.	
LDAP connections can accumulate over a short time period in some cases. Open LDAP connections could accumulate in several cases, for example when an anonymous bind was used. The reason for this was incorrect internal caching. This was fixed.	PAM-16198
Health status information was not up-to-date on the API. After upgrading to SPS 6.13.0, the <code>{{/api/health-status}}</code> information was not updated. This has been fixed.	PAM-16197
SSH SFTP file transfer might fail from certain servers. In some cases, transferring files from certain servers using the SFTP protocol failed due to a packet size limit. In this case, the message 'Invalid packet length;' was written to the system log. The interoperability with these servers has been improved by increasing the packet size limit to match the server limit.	PAM-16188
After upgrading from 5.0.11 to 6.0.12, SPS fails to boot, due to invalid <code>nodeid.json</code> . Though the upgrade finishes successfully, SPS stops before starting up the system. The web UI gets stuck on "Firmware is starting up, please wait...", and the last message on the screen reads "Fatal error: could not start core firmware because makeworld has failed". This issue has been fixed.	PAM-16172
The Login options page was visible for those as well who had no permission to change or view anything. This issue has been fixed and now the Login options page is only visible for those who have permission to it, and read-only mode has been added.	PAM-16125
When trying to visualize session data on the timeline on the Search page, if the start time attribute of a session that is to be included on the timeline is missing, the UI displays <code>InternalError</code> . SPS Search UI provides a feature to visualize session metadata on a timeline chart within a set time range specified by the date filters on the search page. In order to build the timeline, sessions that fall into the given time range specified by the date filters on the search page are collected. Unfortunately, there can be situations, when the start time property of a session is missing. In this case, if the session is included in the timeline, the UI displays <code>InternalError</code> .	PAM-16086

Resolved Issue	Issue ID
In order to solve this problem, sessions for which the start time attribute is not specified, are not included in the timeline.	
Gateway authentication, Four eyes and Active connections were not available on the web interface.  Due to an authorization error, the Gateway authentication, Four eyes and Active connections pages were not available on the web interface. This issue has been fixed.	PAM-16029
The UI did not accept the ecdsa-sha2-nistp384, ecdsa-sha2-nistp521 host key algorithms.  On the SSH options page, setting the host key algorithms field to ecdsa-sha2-nistp384 or ecdsa-sha2-nistp521 was not possible on the client and server side. This issue has been fixed.	PAM-15959
The Quick Connection Setup configuration could not be finished if a commit log was required, but its dialog was canceled.  This issue has been fixed: canceling the commit log takes you to the Review page of the Quick Connection Setup configuration.	PAM-15913
Encrypted sudo-iolog sessions can be replayed without decryption keys.  Even though users had no decryption keys for encrypted sudo-iolog sessions, screenshots and videos were available for inspection. This issue has been fixed. Now, encrypted sudo-iolog sessions cannot be replayed without decryption keys.	PAM-15862
Some of the Mssql connections fail if TLS is configured.  Mssql connections from clients running on either Windows or Linux could fail when TLS was configured.  On Windows, the connections could fail because the Microsoft command line tool could not parse TDS messages sent in multiple fragments due to a timing related issue.  On Linux, connections could fail if OpenSSL 1.1.1 or later was installed, because the Microsoft command line tool falsely advertised support for TLS v1.3. Currently this TLS version cannot be used due to limitations in the TDS protocol.  Both issues have been fixed. Negotiating TLS v1.3 has been temporarily disabled until proper support is implemented in the TDS protocol.  Furthermore, the initial packet size has been raised during the TLS handshake.	PAM-15839
Vault details information box width was too small to read.  The information box width is corrected, it can be read easily.	PAM-15825



Resolved Issue	Issue ID
<p>Users could not upload all supported certifications to trust stores.</p> <p>Some of the certifications were not visible and the user could not upload those to trust stores. This issue is fixed.</p>	PAM-15822
<p>Disk fill-up prevention does not stop active connections.</p> <p>Due to an error, the active connections were not stopped after the disk fill-up prevention threshold was reached. This has been corrected.</p>	PAM-15785
<p>"Accepted" verdict of RDP session could incorrectly turn to "Rejected".</p> <p>In some rare cases, when the RDP session was established using multiple TCP connections, then failing intermediate connection, 'Rejected' status was displayed in UI search page for the session, even if a subsequent connection in the same session was accepted. This was fixed by correctly displaying the final session verdict.</p>	PAM-15616
<p>SPS does not support openssh 8.5 and later clients using pubkey auth.</p> <p>After openssh 8.5 there were some changes related to the pubkey sign algorithm; therefore, the client waits for a message from the server containing the supported server sign algorithms. If this message was missing, the client closed the connection.</p> <p>This has been fixed, SPS now supports pubkey auth with openssh 8.5 and later clients.</p>	PAM-15596
<p>On editing the Error Templates, we changed the logo. After that, we changed the logo again, and canceled this change, and the loading got stuck.</p> <p>This issue has been fixed and now the loading is displayed only if a file is selected.</p>	PAM-15588
<p>Configuration lock isn't released when used app switcher</p> <p>When the user used the app switcher while holding the configuration lock, is it not released and another user wasn't able to configure the SPS.</p>	PAM-15562
<p>tsadaemon tracebacks after reboot.</p> <p>There is a known bug in the openssl-ts tool, which can corrupt its serial file if it is terminated during a timestamping request. The fix prevents this situation and handles the serial file in a failsafe mode.</p>	PAM-15401
<p>Disk space fill-up prevention can be triggered after an upgrade.</p> <p>In SPS 6.10.0, a change was introduced in disk space fill-up prevention, requiring +3 GB of free disk space in addition to the configured disk space fill-up prevention value. The pre-check before the upgrade did not use the new rules and this could lead to a situation where the pre-check is successful but after the upgrade and the reboot, the disk fill-up prevention is triggered. To avoid this situation, the pre-check was modified to verify</p>	PAM-15005

Resolved Issue	Issue ID
the disk space with the new rules.	
For iolog sessions, the Terminate button has been removed from Safeguard Desktop Player.	PAM-14611
In some cases, the Safeguard Desktop Player showed a non-functioning Terminate button, while playing iolog sessions. This issue has been fixed. As terminating iolog sessions is not supported, the Terminate button was removed for iolog sessions.	
Deleting a failed report without a generated pdf may cause an internal server error.	PAM-13632
It can happen that there is an error during the pdf creation of a report. If you tried to delete such a report on the Reporting > Download Reports page, it resulted in an internal server error, because SPS tried to delete a pdf that did not exist.	
This issue has been fixed and now you can delete the failed reports.	
On the SPS Search UI, in the Advanced search filter, for the deprecated 'psm.index_status' field, there was no valid option to search for sessions with INDEXING_ABORTED index status.	PAM-12584
When a new index status called INDEXING_ABORTED was introduced for the 'recording.index_status' field, there was no option provided for its deprecated field, 'psm.index_status' to search for sessions with INDEXING_ABORTED index status. As a result, sessions with INDEXING_ABORTED status could not be searched by the psm.index_status field.	
This has been fixed by adding the value '7' to the psm.index_status field as a valid option, which is mapped to the value of the INDEXING_ABORTED status of the recording.index_status field.	

**Table 2: Resolved Common Vulnerabilities and Exposures (CVE) in release 7.0 LTS**

Resolved Issue	Issue ID
bash:	CVE-2019-18276
bind9:	CVE-2021-25220
cifs-utils:	CVE-2020-14342
	CVE-2021-20208
	CVE-2022-27239
	CVE-2022-29869

Resolved Issue	Issue ID
cups:	CVE-2019-8842
	CVE-2020-10001
	CVE-2022-26691
curl:	CVE-2022-22576
	CVE-2022-27774
	CVE-2022-27775
	CVE-2022-27776
	CVE-2022-27781
	CVE-2022-27782
cyrus-sasl2:	CVE-2022-24407
dbus:	CVE-2020-35512
dpkg:	CVE-2022-1664
expat:	CVE-2021-45960
	CVE-2021-46143
	CVE-2022-22822
	CVE-2022-22823
	CVE-2022-22824
	CVE-2022-22825
	CVE-2022-22826
	CVE-2022-22827
	CVE-2022-23852
	CVE-2022-23990
	CVE-2022-25235
	CVE-2022-25236
	CVE-2022-25313
	CVE-2022-25314
	CVE-2022-25315

Resolved Issue	Issue ID
fribidi:	CVE-2022-25308
	CVE-2022-25309
	CVE-2022-25310
glibc:	CVE-2016-10228
	CVE-2019-25013
	CVE-2020-27618
	CVE-2020-29562
	CVE-2020-6096
	CVE-2021-27645
	CVE-2021-3326
	CVE-2021-35942
	CVE-2021-3999
	CVE-2022-23218
	CVE-2022-23219
gzip:	CVE-2022-1271
klibc:	CVE-2021-31870
	CVE-2021-31871
	CVE-2021-31872
	CVE-2021-31873
libinput:	CVE-2022-1215
libsepol:	CVE-2021-36084
	CVE-2021-36085
	CVE-2021-36086
	CVE-2021-36087
libxml2:	CVE-2022-23308
	CVE-2022-29824

Resolved Issue	Issue ID
linux:	CVE-2020-27820
	CVE-2021-26401
	CVE-2022-0001
	CVE-2022-0435
	CVE-2022-0492
	CVE-2022-0516
	CVE-2022-0847
	CVE-2022-1016
	CVE-2022-1055
	CVE-2022-1116
	CVE-2022-23960
	CVE-2022-25636
	CVE-2022-26490
	CVE-2022-27223
	CVE-2022-27666
	CVE-2022-29581

Resolved Issue	Issue ID
mysql-8.0:	CVE-2022-21412
	CVE-2022-21413
	CVE-2022-21414
	CVE-2022-21415
	CVE-2022-21417
	CVE-2022-21418
	CVE-2022-21423
	CVE-2022-21425
	CVE-2022-21427
	CVE-2022-21435
	CVE-2022-21436
	CVE-2022-21437
	CVE-2022-21438
	CVE-2022-21440
	CVE-2022-21444
	CVE-2022-21451
	CVE-2022-21452
	CVE-2022-21454
	CVE-2022-21457
	CVE-2022-21459
	CVE-2022-21460
	CVE-2022-21462
	CVE-2022-21478
nginx:	CVE-2020-11724
	CVE-2020-36309
	CVE-2021-3618
nss:	CVE-2020-25648

Resolved Issue	Issue ID
openjdk-lts:	CVE-2022-21248
	CVE-2022-21277
	CVE-2022-21282
	CVE-2022-21283
	CVE-2022-21291
	CVE-2022-21293
	CVE-2022-21294
	CVE-2022-21296
	CVE-2022-21299
	CVE-2022-21305
	CVE-2022-21340
	CVE-2022-21341
	CVE-2022-21360
	CVE-2022-21365
	CVE-2022-21366
	CVE-2022-21426
	CVE-2022-21434
	CVE-2022-21443
	CVE-2022-21476
	CVE-2022-21496
openldap:	CVE-2022-29155
openssl:	CVE-2022-0778
	CVE-2022-1292
pcrc3:	CVE-2019-20838
	CVE-2020-14155

Resolved Issue	Issue ID
php7.4:	CVE-2017-8923
	CVE-2017-9118
	CVE-2017-9119
	CVE-2017-9120
	CVE-2021-21707
	CVE-2021-21708
postgresql-12:	CVE-2022-1552
python3.8:	CVE-2022-0391
redis:	CVE-2022-0543
rsync:	CVE-2018-25032
sqlite3:	CVE-2021-36690
tar:	CVE-2021-20193
tcpdump:	CVE-2018-16301
	CVE-2020-8037
tiff:	CVE-2020-35522
	CVE-2022-0561
	CVE-2022-0562
	CVE-2022-0865
	CVE-2022-0891
xz-utils:	CVE-2022-1271
zlib:	CVE-2018-25032

**Table 3: Resolved Common Vulnerabilities and Exposures (CVE) between releases 6.0.0 and 6.13.0**

Resolved Issue	Issue ID
apt:	CVE-2014-0487
	CVE-2019-3462
	CVE-2020-27350
	CVE-2020-3810
avahi:	CVE-2021-3468
bash:	CVE-2019-18276



Resolved Issue	Issue ID
bind9:	CVE-2018-5738
	CVE-2018-5740
	CVE-2018-5743
	CVE-2018-5744
	CVE-2018-5745
	CVE-2019-6465
	CVE-2019-6471
	CVE-2019-6477
	CVE-2020-8616
	CVE-2020-8617
	CVE-2020-8618
	CVE-2020-8619
	CVE-2020-8620
	CVE-2020-8621
	CVE-2020-8622
	CVE-2020-8623
	CVE-2020-8624
	CVE-2020-8625
	CVE-2021-25214
	CVE-2021-25215
	CVE-2021-25216
	CVE-2021-25219
	CVE-2021-25220
bubblewrap:	CVE-2020-5291
busybox:	CVE-2011-5325
	CVE-2017-15873
	CVE-2018-1000500
	CVE-2018-1000517
	CVE-2018-20679

Resolved Issue	Issue ID
	CVE-2019-5747
	CVE-2021-28831
	CVE-2021-42374
	CVE-2021-42378
	CVE-2021-42379
	CVE-2021-42380
	CVE-2021-42381
	CVE-2021-42382
	CVE-2021-42384
	CVE-2021-42385
	CVE-2021-42386
bzip2:	CVE-2008-1372
	CVE-2016-3189
	CVE-2019-12900
cairo:	CVE-2018-19876
cifs-utils:	CVE-2020-14342
	CVE-2021-20208
	CVE-2022-27239
	CVE-2022-29869
cloud-init:	CVE-2020-8632
cpio:	CVE-2015-1197
	CVE-2016-2037
	CVE-2021-38185
cron:	CVE-2017-9525
cryptsetup:	CVE-2016-4484
	CVE-2020-14382
	CVE-2021-4122
cups:	CVE-2018-4180
	CVE-2018-4181

Resolved Issue	Issue ID
	CVE-2018-4182
	CVE-2018-4183
	CVE-2018-4700
	CVE-2018-6553
	CVE-2019-2228
	CVE-2019-8675
	CVE-2019-8696
	CVE-2019-8842
	CVE-2020-10001
	CVE-2020-3898
	CVE-2022-26691
curl:	CVE-2018-0500
	CVE-2018-1000120
	CVE-2018-1000121
	CVE-2018-1000122
	CVE-2018-1000300
	CVE-2018-1000301
	CVE-2018-14618
	CVE-2018-16839
	CVE-2018-16840
	CVE-2018-16842
	CVE-2018-16890
	CVE-2019-3822
	CVE-2019-3823
	CVE-2019-5435
	CVE-2019-5436
	CVE-2019-5481
	CVE-2019-5482
	CVE-2020-8169

Resolved Issue	Issue ID
	CVE-2020-8177
	CVE-2020-8231
	CVE-2020-8284
	CVE-2020-8285
	CVE-2020-8286
	CVE-2021-22876
	CVE-2021-22890
	CVE-2021-22898
	CVE-2021-22924
	CVE-2021-22925
	CVE-2021-22946
	CVE-2021-22947
	CVE-2022-22576
	CVE-2022-27774
	CVE-2022-27775
	CVE-2022-27776
	CVE-2022-27781
	CVE-2022-27782
cyrus-sasl2:	CVE-2019-19906
	CVE-2022-24407
db5.3:	CVE-2019-8457
dbus:	CVE-2019-12749
	CVE-2020-12049
	CVE-2020-35512
dpkg:	CVE-2022-1664
e2fsprogs:	CVE-2019-5094
	CVE-2019-5188
elfutils:	CVE-2018-16062
	CVE-2018-16402

Resolved Issue	Issue ID
	CVE-2018-16403
	CVE-2018-18310
	CVE-2018-18520
	CVE-2018-18521
	CVE-2019-7146
	CVE-2019-7148
	CVE-2019-7149
	CVE-2019-7150
	CVE-2019-7664
	CVE-2019-7665
expat:	CVE-2018-20843
	CVE-2019-15903
	CVE-2021-45960
	CVE-2021-46143
	CVE-2022-22822
	CVE-2022-22823
	CVE-2022-22824
	CVE-2022-22825
	CVE-2022-22826
	CVE-2022-22827
	CVE-2022-23852
	CVE-2022-23990
	CVE-2022-25235
	CVE-2022-25236
	CVE-2022-25313
	CVE-2022-25314
	CVE-2022-25315
ffmpeg:	CVE-2018-12458
	CVE-2018-12459

Resolved Issue	Issue ID
	CVE-2018-12460
	CVE-2018-13300
	CVE-2018-13301
	CVE-2018-13302
	CVE-2018-13303
	CVE-2018-13304
	CVE-2018-14394
	CVE-2018-14395
	CVE-2018-15822
	CVE-2019-1000016
	CVE-2019-11338
	CVE-2019-11339
	CVE-2019-12730
	CVE-2019-13312
	CVE-2019-17539
	CVE-2019-17542
	CVE-2019-9718
	CVE-2019-9721
	CVE-2020-12284
	CVE-2020-13904
file:	CVE-2018-10360
	CVE-2019-18218
	CVE-2019-8904
	CVE-2019-8905
	CVE-2019-8906
	CVE-2019-8907
freerdp2:	CVE-2020-11097
	CVE-2020-15103
	CVE-2020-4030

Resolved Issue	Issue ID
freetype:	CVE-2018-6942
	CVE-2020-15999
fuse:	CVE-2018-10906
gettext:	CVE-2018-18751
glib2.0:	CVE-2012-3524
	CVE-2019-12450
	CVE-2020-6750
	CVE-2021-2721
	CVE-2021-27218
	CVE-2021-27219
	CVE-2021-28153
glibc:	CVE-2016-10228
	CVE-2016-10739
	CVE-2018-11236
	CVE-2018-11237
	CVE-2018-19591
	CVE-2019-19126
	CVE-2019-25013
	CVE-2019-6488
	CVE-2019-7309
	CVE-2019-9169
	CVE-2020-27618
	CVE-2020-29562
	CVE-2020-6096
	CVE-2021-27645
	CVE-2021-3326
	CVE-2021-35942
	CVE-2021-3999
	CVE-2022-23218

Resolved Issue	Issue ID
	CVE-2022-23219
gnupg2:	CVE-2018-12020
gnutls28:	CVE-2019-3829
	CVE-2019-3836
	CVE-2020-13777
	CVE-2020-24659
	CVE-2021-20231
	CVE-2021-20232
graphite2:	CVE-2016-1977
	CVE-2016-2790
	CVE-2016-2791
	CVE-2016-2792
grub2:	CVE-2020-10713
	CVE-2020-14308
	CVE-2020-14309
	CVE-2020-14310
	CVE-2020-14311
	CVE-2020-15705
	CVE-2020-15706
	CVE-2020-15707
gzip:	CVE-2022-1271
heimdal:	CVE-2018-16860
	CVE-2019-12098
	CVE-2019-14870
icu:	CVE-2018-18928
	CVE-2020-10531
	CVE-2021-30535
isc-dhcp:	CVE-2017-3144
	CVE-2018-5732



Resolved Issue	Issue ID
	CVE-2018-5733
	CVE-2021-25217
jinja2:	CVE-2019-10906
json-c:	CVE-2020-12762
klibc:	CVE-2021-31870
	CVE-2021-31871
	CVE-2021-31872
	CVE-2021-31873
krb5:	CVE-2007-0956
	CVE-2007-1216
	CVE-2014-9422
	CVE-2018-20217
	CVE-2018-5729
	CVE-2018-5730
	CVE-2020-28196
lcms2:	CVE-2018-16435
ldb:	CVE-2019-3824
	CVE-2020-25718
	CVE-2020-27840
	CVE-2021-20277
libdbi-perl:	CVE-2014-10402
libgcrypt20:	CVE-2018-0495
	CVE-2019-13627
	CVE-2021-33560
	CVE-2021-40528
libgd2:	CVE-2017-6363
	CVE-2018-1000222
	CVE-2018-14553
	CVE-2018-5711

Resolved Issue	Issue ID
	CVE-2019-11038
	CVE-2019-6977
	CVE-2019-6978
	CVE-2021-38115
	CVE-2021-40145
libinput:	CVE-2022-1215
libjpeg-turbo:	CVE-2018-19664
	CVE-2018-20330
	CVE-2020-13790
libmspack:	CVE-2018-14679
	CVE-2018-14680
	CVE-2018-14681
	CVE-2018-14682
	CVE-2018-18584
	CVE-2018-18585
	CVE-2018-18586
libonig:	CVE-2019-13224
	CVE-2019-13225
	CVE-2019-16163
	CVE-2019-19012
	CVE-2019-19203
	CVE-2019-19204
	CVE-2019-19246
libpcap:	CVE-2018-16301
	CVE-2019-15165
libpng1.6:	CVE-2014-0333
	CVE-2018-13785
	CVE-2019-7317
librabbitmq:	CVE-2019-18609

Resolved Issue	Issue ID
libseccomp:	CVE-2019-9893
libsepol:	CVE-2021-36084
	CVE-2021-36085
	CVE-2021-36086
	CVE-2021-36087
libssh2:	CVE-2019-3855
	CVE-2019-3856
	CVE-2019-3857
	CVE-2019-3858
	CVE-2019-3859
	CVE-2019-3860
	CVE-2019-3861
	CVE-2019-3862
	CVE-2019-3863
libtasn1-6:	CVE-2018-1000654
libtirpc:	CVE-2016-4429
	CVE-2018-14622
libwebp:	CVE-2018-25009
	CVE-2018-25010
	CVE-2018-25011
	CVE-2018-25012
	CVE-2018-25013
	CVE-2018-25014
	CVE-2020-36328
	CVE-2020-36329
	CVE-2020-36330
	CVE-2020-36331
	CVE-2020-36332
libx11:	CVE-2018-14598

Resolved Issue	Issue ID
	CVE-2018-14599
	CVE-2018-14600
	CVE-2020-14344
	CVE-2020-14363
	CVE-2021-31535
libxkbcommon:	CVE-2018-15853
	CVE-2018-15854
	CVE-2018-15855
	CVE-2018-15856
	CVE-2018-15857
	CVE-2018-15858
	CVE-2018-15859
	CVE-2018-15861
	CVE-2018-15862
	CVE-2018-15863
	CVE-2018-15864
libxml2:	CVE-2016-9318
	CVE-2017-16932
	CVE-2017-18258
	CVE-2018-14404
	CVE-2018-14567
	CVE-2018-9251
	CVE-2019-19956
	CVE-2019-20388
	CVE-2020-24977
	CVE-2020-7595
	CVE-2021-3516
	CVE-2021-3517
	CVE-2021-3518

Resolved Issue	Issue ID
	CVE-2021-3537
	CVE-2021-3541
	CVE-2022-23308
	CVE-2022-29824
libxslt:	CVE-2019-11068
	CVE-2019-13117
	CVE-2019-13118
	CVE-2019-18197
libzstd:	CVE-2021-24031
	CVE-2021-24032
linux:	CVE-2017-5715
	CVE-2018-6559
	CVE-2018-9363
	CVE-2019-12614
	CVE-2019-14895
	CVE-2019-14896
	CVE-2019-14897
	CVE-2019-14901
	CVE-2019-15098
	CVE-2019-15791
	CVE-2019-15792
	CVE-2019-15793
	CVE-2019-15794
	CVE-2019-16089
	CVE-2019-17052
	CVE-2019-17053
	CVE-2019-17054
	CVE-2019-17055
	CVE-2019-17056

Resolved Issue	Issue ID
	CVE-2019-17666
	CVE-2019-19050
	CVE-2019-19076
	CVE-2019-19078
	CVE-2019-19332
	CVE-2019-19449
	CVE-2019-19642
	CVE-2019-19770
	CVE-2019-3016
	CVE-2019-3460
	CVE-2019-3874
	CVE-2019-9857
	CVE-2020-0543
	CVE-2020-11494
	CVE-2020-11884
	CVE-2020-11935
	CVE-2020-12351
	CVE-2020-12352
	CVE-2020-12888
	CVE-2020-13143
	CVE-2020-14351
	CVE-2020-14386
	CVE-2020-16119
	CVE-2020-16120
	CVE-2020-24490
	CVE-2020-24586
	CVE-2020-24587
	CVE-2020-24588
	CVE-2020-26139

Resolved Issue	Issue ID
	CVE-2020-26141
	CVE-2020-26145
	CVE-2020-26147
	CVE-2020-26541
	CVE-2020-27170
	CVE-2020-27171
	CVE-2020-27777
	CVE-2020-27820
	CVE-2020-28374
	CVE-2020-29372
	CVE-2020-36385
	CVE-2020-4788
	CVE-2020-8694
	CVE-2020-8835
	CVE-2021-1052
	CVE-2021-1053
	CVE-2021-26401
	CVE-2021-27363
	CVE-2021-27364
	CVE-2021-27365
	CVE-2021-29154
	CVE-2021-29650
	CVE-2021-33200
	CVE-2021-33909
	CVE-2021-3428
	CVE-2021-3444
	CVE-2021-3492
	CVE-2021-3653
	CVE-2021-3656

Resolved Issue	Issue ID
	CVE-2021-3759
	CVE-2021-4002
	CVE-2021-40490
	CVE-2021-4083
	CVE-2021-4155
	CVE-2022-0001
	CVE-2022-0185
	CVE-2022-0330
	CVE-2022-0435
	CVE-2022-0492
	CVE-2022-0516
	CVE-2022-0847
	CVE-2022-1016
	CVE-2022-1055
	CVE-2022-1116
	CVE-2022-22942
	CVE-2022-23960
	CVE-2022-25636
	CVE-2022-26490
	CVE-2022-27223
	CVE-2022-27666
	CVE-2022-29581
lxml:	CVE-2020-27783
	CVE-2021-28957
	CVE-2021-43818
lz4:	CVE-2019-17543
	CVE-2021-3520
mysql-5.7:	CVE-2016-9843
	CVE-2018-0739



Resolved Issue	Issue ID
	CVE-2018-2755
	CVE-2018-2758
	CVE-2018-2759
	CVE-2018-2761
	CVE-2018-2762
	CVE-2018-2766
	CVE-2018-2767
	CVE-2018-2769
	CVE-2018-2771
	CVE-2018-2773
	CVE-2018-2775
	CVE-2018-2776
	CVE-2018-2777
	CVE-2018-2778
	CVE-2018-2779
	CVE-2018-2780
	CVE-2018-2781
	CVE-2018-2782
	CVE-2018-2784
	CVE-2018-2786
	CVE-2018-2787
	CVE-2018-2810
	CVE-2018-2812
	CVE-2018-2813
	CVE-2018-2816
	CVE-2018-2817
	CVE-2018-2818
	CVE-2018-2819
	CVE-2018-2839

Resolved Issue	Issue ID
	CVE-2018-2846
	CVE-2018-3054
	CVE-2018-3056
	CVE-2018-3058
	CVE-2018-3060
	CVE-2018-3061
	CVE-2018-3062
	CVE-2018-3064
	CVE-2018-3065
	CVE-2018-3066
	CVE-2018-3070
	CVE-2018-3071
	CVE-2018-3077
	CVE-2018-3081
	CVE-2018-3133
	CVE-2018-3143
	CVE-2018-3144
	CVE-2018-3155
	CVE-2018-3156
	CVE-2018-3161
	CVE-2018-3162
	CVE-2018-3171
	CVE-2018-3173
	CVE-2018-3174
	CVE-2018-3185
	CVE-2018-3187
	CVE-2018-3200
	CVE-2018-3247
	CVE-2018-3251

Resolved Issue	Issue ID
	CVE-2018-3276
	CVE-2018-3277
	CVE-2018-3278
	CVE-2018-3282
	CVE-2018-3283
	CVE-2018-3284
	CVE-2019-14775
	CVE-2019-2911
	CVE-2019-2914
	CVE-2019-2920
	CVE-2019-2922
	CVE-2019-2923
	CVE-2019-2924
	CVE-2019-2938
	CVE-2019-2946
	CVE-2019-2948
	CVE-2019-2950
	CVE-2019-2957
	CVE-2019-2960
	CVE-2019-2963
	CVE-2019-2966
	CVE-2019-2967
	CVE-2019-2968
	CVE-2019-2969
	CVE-2019-2974
	CVE-2019-2982
	CVE-2019-2991
	CVE-2019-2993
	CVE-2019-2997

Resolved Issue	Issue ID
	CVE-2019-2998
	CVE-2019-3003
	CVE-2019-3004
	CVE-2019-3009
	CVE-2019-3011
	CVE-2019-3018
	CVE-2020-14539
	CVE-2020-14540
	CVE-2020-14547
	CVE-2020-14550
	CVE-2020-14553
	CVE-2020-14559
	CVE-2020-14568
	CVE-2020-14575
	CVE-2020-14576
	CVE-2020-14586
	CVE-2020-14591
	CVE-2020-14597
	CVE-2020-14619
	CVE-2020-14620
	CVE-2020-14623
	CVE-2020-14624
	CVE-2020-14631
	CVE-2020-14632
	CVE-2020-14633
	CVE-2020-14634
	CVE-2020-14641
	CVE-2020-14643
	CVE-2020-14651

Resolved Issue	Issue ID
	CVE-2020-14654
	CVE-2020-14656
	CVE-2020-14663
	CVE-2020-14672
	CVE-2020-14678
	CVE-2020-14680
	CVE-2020-14697
	CVE-2020-14702
	CVE-2020-14765
	CVE-2020-14769
	CVE-2020-14771
	CVE-2020-14773
	CVE-2020-14775
	CVE-2020-14776
	CVE-2020-14777
	CVE-2020-14785
	CVE-2020-14786
	CVE-2020-14789
	CVE-2020-14790
	CVE-2020-14791
	CVE-2020-14793
	CVE-2020-14794
	CVE-2020-14800
	CVE-2020-14804
	CVE-2020-14809
	CVE-2020-14812
	CVE-2020-14814
	CVE-2020-14821
	CVE-2020-14827

Resolved Issue	Issue ID
	CVE-2020-14828
	CVE-2020-14829
	CVE-2020-14830
	CVE-2020-14836
	CVE-2020-14837
	CVE-2020-14838
	CVE-2020-14839
	CVE-2020-14844
	CVE-2020-14845
	CVE-2020-14846
	CVE-2020-14848
	CVE-2020-14852
	CVE-2020-14853
	CVE-2020-14860
	CVE-2020-14861
	CVE-2020-14866
	CVE-2020-14867
	CVE-2020-14868
	CVE-2020-14869
	CVE-2020-14870
	CVE-2020-14873
	CVE-2020-14878
	CVE-2020-14888
	CVE-2020-14891
	CVE-2020-14893
	CVE-2020-2570
	CVE-2020-2572
	CVE-2020-2573
	CVE-2020-2574

Resolved Issue	Issue ID
	CVE-2020-2577
	CVE-2020-2579
	CVE-2020-2584
	CVE-2020-2588
	CVE-2020-2589
	CVE-2020-2627
	CVE-2020-2660
	CVE-2020-2679
	CVE-2020-2686
	CVE-2020-2694
	CVE-2020-2759
	CVE-2020-2760
	CVE-2020-2762
	CVE-2020-2763
	CVE-2020-2765
	CVE-2020-2780
	CVE-2020-2804
	CVE-2020-2812
	CVE-2020-2892
	CVE-2020-2893
	CVE-2020-2895
	CVE-2020-2896
	CVE-2020-2897
	CVE-2020-2898
	CVE-2020-2901
	CVE-2020-2903
	CVE-2020-2904
	CVE-2020-2921
	CVE-2020-2923

Resolved Issue	Issue ID
	CVE-2020-2924
	CVE-2020-2925
	CVE-2020-2926
	CVE-2020-2928
	CVE-2020-2930
	CVE-2021-2002
	CVE-2021-2010
	CVE-2021-2011
	CVE-2021-2021
	CVE-2021-2022
	CVE-2021-2024
	CVE-2021-2031
	CVE-2021-2032
	CVE-2021-2036
	CVE-2021-2038
	CVE-2021-2046
	CVE-2021-2048
	CVE-2021-2056
	CVE-2021-2058
	CVE-2021-2060
	CVE-2021-2061
	CVE-2021-2065
	CVE-2021-2070
	CVE-2021-2072
	CVE-2021-2076
	CVE-2021-2081
	CVE-2021-2087
	CVE-2021-2088
	CVE-2021-2122



Resolved Issue	Issue ID
	CVE-2021-2146
	CVE-2021-2162
	CVE-2021-2164
	CVE-2021-2166
	CVE-2021-2169
	CVE-2021-2170
	CVE-2021-2171
	CVE-2021-2172
	CVE-2021-2179
	CVE-2021-2180
	CVE-2021-2193
	CVE-2021-2194
	CVE-2021-2196
	CVE-2021-2201
	CVE-2021-2203
	CVE-2021-2208
	CVE-2021-2212
	CVE-2021-2215
	CVE-2021-2217
	CVE-2021-2226
	CVE-2021-2230
	CVE-2021-2232
	CVE-2021-2278
	CVE-2021-2293
	CVE-2021-2298
	CVE-2021-2299
	CVE-2021-2300
	CVE-2021-2301
	CVE-2021-2304

Resolved Issue	Issue ID
	CVE-2021-2305
	CVE-2021-2307
	CVE-2021-2308
	CVE-2021-2339
	CVE-2021-2340
	CVE-2021-2342
	CVE-2021-2352
	CVE-2021-2354
	CVE-2021-2356
	CVE-2021-2357
	CVE-2021-2367
	CVE-2021-2370
	CVE-2021-2372
	CVE-2021-2374
	CVE-2021-2383
	CVE-2021-2384
	CVE-2021-2385
	CVE-2021-2387
	CVE-2021-2389
	CVE-2021-2390
	CVE-2021-2399
	CVE-2021-2402
	CVE-2021-2410
	CVE-2021-2417
	CVE-2021-2418
	CVE-2021-2422
	CVE-2021-2424
	CVE-2021-2425
	CVE-2021-2426

Resolved Issue	Issue ID
	CVE-2021-2427
	CVE-2021-2429
	CVE-2021-2437
	CVE-2021-2440
	CVE-2021-2441
	CVE-2021-2478
	CVE-2021-2479
	CVE-2021-2481
	CVE-2021-35546
	CVE-2021-35575
	CVE-2021-35577
	CVE-2021-35584
	CVE-2021-35591
	CVE-2021-35596
	CVE-2021-35597
	CVE-2021-35602
	CVE-2021-35604
	CVE-2021-35607
	CVE-2021-35608
	CVE-2021-35610
	CVE-2021-35612
	CVE-2021-35613
	CVE-2021-35622
	CVE-2021-35623
	CVE-2021-35624
	CVE-2021-35625
	CVE-2021-35626
	CVE-2021-35627
	CVE-2021-35628

Resolved Issue	Issue ID
	CVE-2021-35630
	CVE-2021-35631
	CVE-2021-35632
	CVE-2021-35633
	CVE-2021-35634
	CVE-2021-35635
	CVE-2021-35636
	CVE-2021-35637
	CVE-2021-35638
	CVE-2021-35639
	CVE-2021-35640
	CVE-2021-35641
	CVE-2021-35642
	CVE-2021-35643
	CVE-2021-35644
	CVE-2021-35645
	CVE-2021-35646
	CVE-2021-35647
	CVE-2021-35648
	CVE-2022-21245
	CVE-2022-21249
	CVE-2022-21253
	CVE-2022-21254
	CVE-2022-21256
	CVE-2022-21264
	CVE-2022-21265
	CVE-2022-21270
	CVE-2022-21301
	CVE-2022-21302

Resolved Issue	Issue ID
	CVE-2022-21303
	CVE-2022-21304
	CVE-2022-21339
	CVE-2022-21342
	CVE-2022-21344
	CVE-2022-21348
	CVE-2022-21351
	CVE-2022-21358
	CVE-2022-21362
	CVE-2022-21367
	CVE-2022-21368
	CVE-2022-21370
	CVE-2022-21372
	CVE-2022-21374
	CVE-2022-21378
	CVE-2022-21379
	CVE-2022-21412
	CVE-2022-21413
	CVE-2022-21414
	CVE-2022-21415
	CVE-2022-21417
	CVE-2022-21418
	CVE-2022-21423
	CVE-2022-21425
	CVE-2022-21427
	CVE-2022-21435
	CVE-2022-21436
	CVE-2022-21437
	CVE-2022-21438

Resolved Issue	Issue ID
	CVE-2022-21440
	CVE-2022-21444
	CVE-2022-21451
	CVE-2022-21452
	CVE-2022-21454
	CVE-2022-21457
	CVE-2022-21459
	CVE-2022-21460
	CVE-2022-21462
	CVE-2022-21478
ncurses:	CVE-2019-17594
	CVE-2019-17595
net-snmp:	CVE-2018-18065
	CVE-2019-20892
	CVE-2020-15861
	CVE-2020-15862
nettle:	CVE-2021-20305
	CVE-2021-3580
nfs-utils:	CVE-2019-3689
nghttp2:	CVE-2018-1000168
nginx:	CVE-2019-9511
	CVE-2019-9513
	CVE-2019-9516
	CVE-2020-11724
	CVE-2020-36309
	CVE-2021-23017
	CVE-2021-3618
nss:	CVE-2018-12384
	CVE-2018-18508

Resolved Issue	Issue ID
	CVE-2019-11719
	CVE-2019-11727
	CVE-2019-11745
	CVE-2019-17023
	CVE-2020-12399
	CVE-2020-12400
	CVE-2020-12401
	CVE-2020-12402
	CVE-2020-12403
	CVE-2020-25648
	CVE-2020-6829
	CVE-2021-43527
ntp:	CVE-2016-1549
	CVE-2018-7170
	CVE-2018-7182
	CVE-2018-7183
	CVE-2018-7184
	CVE-2018-7185
	CVE-2019-8936
opencv:	CVE-2016-1516
	CVE-2016-1517
	CVE-2017-1000450
	CVE-2017-12597
	CVE-2017-12598
	CVE-2017-12599
	CVE-2017-12600
	CVE-2017-12601
	CVE-2017-12602
	CVE-2017-12603

Resolved Issue	Issue ID
	CVE-2017-12604
	CVE-2017-12605
	CVE-2017-12606
	CVE-2017-12862
	CVE-2017-12863
	CVE-2017-12864
	CVE-2017-14136
	CVE-2017-17760
	CVE-2017-18009
	CVE-2018-5268
	CVE-2018-5269
openldap:	CVE-2019-13057
	CVE-2019-13565
	CVE-2020-12243
	CVE-2020-25692
	CVE-2020-25709
	CVE-2020-25710
	CVE-2020-36221
	CVE-2020-36222
	CVE-2020-36223
	CVE-2020-36224
	CVE-2020-36225
	CVE-2020-36226
	CVE-2020-36227
	CVE-2020-36228
	CVE-2020-36229
	CVE-2020-36230
	CVE-2021-27212
	CVE-2022-29155



Resolved Issue	Issue ID
openssh:	CVE-2018-15473
	CVE-2018-20685
	CVE-2019-6109
	CVE-2019-6111
	CVE-2021-28041
openssl:	CVE-2018-0732
	CVE-2018-0734
	CVE-2018-0735
	CVE-2018-0737
	CVE-2019-1543
	CVE-2019-1547
	CVE-2019-1549
	CVE-2019-1551
	CVE-2019-1563
	CVE-2020-1967
	CVE-2020-1971
	CVE-2021-23840
	CVE-2021-23841
	CVE-2021-3449
	CVE-2021-3711
	CVE-2021-3712
	CVE-2022-0778
	CVE-2022-1292
p11-kit:	CVE-2020-29361
	CVE-2020-29362
	CVE-2020-29363
pam:	CVE-2009-0887
pango1.0:	CVE-2011-0020
	CVE-2011-0064

Resolved Issue	Issue ID
patch:	CVE-2019-1010238
	CVE-2018-1000156
	CVE-2019-13636
	CVE-2019-13638
pcre3:	CVE-2019-20838
	CVE-2020-14155
perl:	CVE-2018-12015
	CVE-2018-18311
	CVE-2018-18312
	CVE-2020-10543
	CVE-2020-10878
	CVE-2020-12723
php-pear:	CVE-2020-2894
	CVE-2020-28948
	CVE-2020-28949
	CVE-2020-36193
	CVE-2021-32610
postgresql-10:	CVE-2018-1058
	CVE-2020-14349
	CVE-2020-14350
	CVE-2020-1720
	CVE-2020-25694
	CVE-2020-25695
	CVE-2020-25696
	CVE-2021-23214
	CVE-2021-23222
	CVE-2021-32027
	CVE-2021-32028
	CVE-2021-32029

Resolved Issue	Issue ID
	CVE-2021-3393
	CVE-2021-3449
	CVE-2022-1552
postgresql-common:	CVE-2019-3466
procps:	CVE-2017-18078
	CVE-2018-1123
	CVE-2018-1124
	CVE-2018-1125
	CVE-2018-1126
python-babel:	CVE-2021-20095
python-crypto:	CVE-2018-6594
python-cryptography:	CVE-2018-10903
	CVE-2020-25659
python-urllib3:	CVE-2019-11236
	CVE-2020-26137
python2.7:	CVE-2013-1752
	CVE-2018-1000802
	CVE-2018-14647
	CVE-2019-16056
	CVE-2019-17514
	CVE-2019-18348
	CVE-2019-20907
	CVE-2019-5010
	CVE-2019-9636
	CVE-2019-9674
	CVE-2019-9948
	CVE-2020-26116
	CVE-2020-8492
	CVE-2021-3177

Resolved Issue	Issue ID
pyyaml:	CVE-2020-14343
	CVE-2020-1747
qtbase-opensource-src:	CVE-2015-9541
	CVE-2018-15518
	CVE-2018-19870
	CVE-2018-19873
	CVE-2020-0569
	CVE-2020-0570
	CVE-2021-38593
rabbitmq-server:	CVE-2016-9877
	CVE-2017-4965
	CVE-2017-4966
	CVE-2017-4967
	CVE-2021-22116
redis:	CVE-2018-11218
	CVE-2018-11219
	CVE-2022-0543
requests:	CVE-2018-18074
rpcbind:	CVE-2015-7236
	CVE-2017-8779
rsync:	CVE-2018-25032
	CVE-2018-5764
samba:	CVE-2016-2124
	CVE-2018-1050
	CVE-2018-1057
	CVE-2018-10858
	CVE-2018-10918
	CVE-2018-10919
	CVE-2018-1139

Resolved Issue	Issue ID
	CVE-2018-1140
	CVE-2018-14629
	CVE-2018-16841
	CVE-2018-16851
	CVE-2018-16852
	CVE-2018-16853
	CVE-2018-16857
	CVE-2018-16860
	CVE-2019-10197
	CVE-2019-10218
	CVE-2019-12435
	CVE-2019-12436
	CVE-2019-14833
	CVE-2019-14861
	CVE-2019-14870
	CVE-2019-14902
	CVE-2019-14907
	CVE-2019-19344
	CVE-2019-3870
	CVE-2019-3880
	CVE-2020-10700
	CVE-2020-10704
	CVE-2020-10730
	CVE-2020-10745
	CVE-2020-10760
	CVE-2020-14303
	CVE-2020-14318
	CVE-2020-14323
	CVE-2020-14383

Resolved Issue	Issue ID
	CVE-2020-1472
	CVE-2020-25717
	CVE-2020-25718
	CVE-2020-25719
	CVE-2020-25721
	CVE-2020-25722
	CVE-2021-20254
	CVE-2021-23192
	CVE-2021-3738
	CVE-2021-43566
	CVE-2021-44142
	CVE-2022-0336
screen:	CVE-2021-26937
smarty3:	CVE-2009-5052
	CVE-2009-5053
	CVE-2017-1000480
	CVE-2018-16831
sqlite3:	CVE-2018-8740
	CVE-2019-19242
	CVE-2019-19244
	CVE-2019-19603
	CVE-2019-19645
	CVE-2019-19880
	CVE-2019-19923
	CVE-2019-19924
	CVE-2019-19925
	CVE-2019-5018
	CVE-2019-5827
	CVE-2019-8457

Resolved Issue	Issue ID
	CVE-2019-9936
	CVE-2019-9937
	CVE-2020-11655
	CVE-2020-13434
	CVE-2020-13435
	CVE-2020-13630
	CVE-2020-13631
	CVE-2020-13632
	CVE-2020-15358
	CVE-2020-9327
	CVE-2021-36690
strongswan:	CVE-2014-9221
	CVE-2015-8023
	CVE-2018-10811
	CVE-2018-16151
	CVE-2018-16152
	CVE-2018-17540
	CVE-2018-5388
	CVE-2021-41990
	CVE-2021-41991
	CVE-2021-45079
sudo:	CVE-2019-14287
	CVE-2021-23239
	CVE-2021-3156
sysstat:	CVE-2018-19416
	CVE-2018-19517
	CVE-2019-16167
	CVE-2019-19725
systemd:	CVE-2018-15686

Resolved Issue	Issue ID
	CVE-2018-15687
	CVE-2018-15688
	CVE-2018-16864
	CVE-2018-16865
	CVE-2018-20839
	CVE-2018-6954
	CVE-2019-15718
	CVE-2019-3842
	CVE-2019-3843
	CVE-2019-3844
	CVE-2019-6454
	CVE-2020-13529
	CVE-2020-1712
	CVE-2021-33910
	CVE-2021-3997
tar:	CVE-2018-20482
	CVE-2019-9923
	CVE-2021-20193
tcpdump:	CVE-2017-16808
	CVE-2018-16301
	CVE-2020-8037
tiff:	CVE-2018-10963
	CVE-2018-12900
	CVE-2018-17000
	CVE-2018-17100
	CVE-2018-17101
	CVE-2018-18557
	CVE-2018-18661
	CVE-2018-19210



Resolved Issue	Issue ID
	CVE-2018-8905
	CVE-2019-14973
	CVE-2019-6128
	CVE-2020-19143
	CVE-2020-35522
	CVE-2020-35523
	CVE-2020-35524
	CVE-2022-0561
	CVE-2022-0562
	CVE-2022-0865
	CVE-2022-0891
util-linux:	CVE-2018-7738
	CVE-2021-3995
	CVE-2021-3996
vim:	CVE-2019-12735
	CVE-2021-3770
	CVE-2021-3778
	CVE-2021-3796
	CVE-2021-3872
	CVE-2021-3903
	CVE-2021-3927
	CVE-2021-3928
	CVE-2021-3974
	CVE-2021-3984
	CVE-2021-4019
	CVE-2021-4069
walinuxagent:	CVE-2019-0804
wget:	CVE-2018-0494
	CVE-2018-20483

Resolved Issue	Issue ID
	CVE-2019-5953
xfsprogs:	CVE-2012-2150
xz-utils:	CVE-2022-1271
zlib:	CVE-2018-25032

## Known issues

The following is a list of issues, including those attributed to third-party products, known to exist at the time of release.

**Table 4: General known issues**

Known Issue
<p><b>⚠ CAUTION:</b></p> <p><b>After upgrading to version 7.0 LTS, SPS requires a new license. To avoid possible downtimes due to certain features not being available, before starting the upgrade, ensure that you have a valid SPS license for 7.0 LTS.</b></p> <p><b>Upgrade as follows:</b></p> <ol style="list-style-type: none"> <li><b>1. Perform the upgrade to 7.0 LTS with your current license.</b></li> <li><b>2. Update your SPS license to 7.0 LTS.</b></li> </ol> <p><b>For a new SPS license for 7.0 LTS, <a href="#">contact our Licensing Team</a>.</b></p>
<p>TLS version 1.3 is not supported when using the inWebo, Okta or One Identity Starling 2FA plugins. To ensure that TLS 1.2 is used by SPS during negotiation, specify the minimum and maximum TLS version as follows:</p> <ul style="list-style-type: none"> <li>• For the minimum TLS version, select TLS version 1.2.</li> <li>• For the maximum TLS version, select TLS version 1.3.</li> </ul> <p>For more information, see <a href="#">"Verifying certificates with Certificate Authorities using trust stores" in the Administration Guide</a>.</p>
<p>The accuracy of replaying audit trails in Asian languages (Traditional Chinese, Korean) has been enhanced. Due to this change, when upgrading SPS to version 6.11.0, all your sessions will be reindexed, and while reindexing is in progress, your sessions on the Search interface are incomplete. For this reason, plan your upgrade to SPS 6.11.0 accordingly.</p>
<p>Report generation may fail if a report subchapter references a connection policy that has</p>

## Known Issue

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been deleted previously.

SPS can create reports giving detailed information about connections of every connection policy. For this, the user can add connection subchapters in the **Report Configuration Wizard**, under **Reporting > Create & Manage Reports**.

For a successful report generation, the referenced connection policy must exist on the appliance. However, when deleting a connection policy that is referenced as a connection subchapter, the user is not warned that the report subchapter must be removed, otherwise the subsequent report generation will fail.

This affects scheduled report generation as well.

## System requirements

Before installing SPS 7.0 LTS, ensure that your system meets the following minimum hardware and software requirements.

The One Identity Safeguard for Privileged Sessions Appliance is built specifically for use only with the One Identity Safeguard for Privileged Sessions software that is already installed and ready for immediate use. It comes hardened to ensure the system is secure at the hardware, operating system, and software levels.

For the requirements about installing One Identity Safeguard for Privileged Sessions as a virtual appliance, see one of the following documents:

**NOTE:** When setting up a virtual environment, carefully consider the configuration aspects such as CPU, memory availability, I/O subsystem, and network infrastructure to ensure the virtual layer has the necessary resources available. Please consult [One Identity's Product Support Policies](#) for more information on environment virtualization.

# Supported web browsers and operating systems

## ⚠ CAUTION:

From version 6.13.0, SPS does not support Internet Explorer 11 (IE11) anymore. SPS version 6.12.0 and previous versions continue to support IE11.

From SPS version 6.10, the Google WebM Video for Microsoft Internet Explorer plugin is not required for replaying audit trails in your browser. The supported browsers are:

- Google Chrome
- Firefox
- Safari
- Internet Explorer 11 (IE11) - supported until SPS version 6.12.0

For SPS version 6.9 and earlier versions, even though the One Identity Safeguard for Privileged Sessions (SPS) web interface supports Internet Explorer and Microsoft Edge in general, to replay audit trails, you need to use Internet Explorer 11, and install the [Google WebM Video for Microsoft Internet Explorer plugin](#).

If you cannot install Internet Explorer 11 or another supported browser on your computer, use the the Safeguard Desktop Player application. For details, see ["Replaying audit trails in your browser" in the Administration Guide](#) and [Safeguard Desktop Player User Guide](#).

## ⚠ CAUTION:

SPS version 4 F3 and later versions do not support Internet Explorer 9 (IE9) and Internet Explorer 10 (IE10), as the official support of IE9 and IE10 ended in January, 2016.

**NOTE:** SPS displays a warning message if your browser is not supported or JavaScript is disabled.

**NOTE:** The minimum recommended screen resolution for viewing One Identity Safeguard for Privileged Sessions's (SPS's) web interface is 1366 x 768 pixels on a 14-inch widescreen (standard 16:9 ratio) laptop screen. Screen sizes and screen resolutions that are equal to or are above these values will guarantee an optimal display of the web interface.

## Supported browsers

The following browsers are supported:

- Mozilla Firefox (the latest version)
- Google Chrome
- Microsoft Edge (Microsoft Edge Legacy is not supported)

The browser must support TLS-encrypted HTTPS connections, JavaScript, and cookies. Make sure that both JavaScript and cookies are enabled.

The SPS web interface can be accessed only using TLS-encryption and strong cipher algorithms.

Opening the web interface in multiple browser windows or tabs is not supported.

## Supported operating systems

The following operating systems are supported:

- Windows 2008 Server
- Windows 2012 Server
- Windows 2012 R2 Server
- Windows 2016
- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Linux

# Safeguard Desktop Player system requirements

The Safeguard Desktop Player application supports the following operating systems:

- **Microsoft Windows:**

64-bit version of Windows 7 or newer. Install the appropriate driver for your graphic card.

- **Linux:**

RHEL 7, CentOS 7, or newer. The Safeguard Desktop Player application will probably run on other distributions as well that have at least libc6 version 2.17 installed.

Depending on the distribution, you will need to install the following packages:

- On Debian-based GNU/Linux:
  - libxcb-render-util0
  - libxcb-keysyms1
  - libxcb-image0
  - libxcb-randr0

- libxcb-xkb1
- libxcb-xinerama0
- libxcb-icccm4
- On CentOS/Red Hat:
  - xcb-util-renderutil
  - xcb-util-keysyms
  - xcb-util-image
- **Mac:**
  - macOS Catalina 10.15, or newer.

To install the Safeguard Desktop Player application, you need about 200MB disk space, and a temporarily used disk space to store the audit trails that are replayed. The size of the temporary files depends on the size of the replayed audit trails.

You can install the Safeguard Desktop Player application with user privileges.

## Hardware specifications

One Identity Safeguard for Privileged Sessions appliances are built on high performance, energy efficient, and reliable hardware that are easily mounted into standard rack mounts.

**Table 5: Hardware specifications**

Product	Redundant PSU	Processor	Memory	Capacity	RAID	IPMI
SPS T-1	No	1x Intel Xeon X3430 2.40GHz	2 x 4 GB	2 x 1 TB	Software RAID	Yes
SPS T-4	Yes	1x Intel Xeon E3-1275 v2 3.50GHz	2 x 4 GB	4 x 2 TB	LSI MegaRAID SAS 9271-4i SGL	Yes
SPS T-10	Yes	2 x Intel Xeon E5-2630 v2 2.6GHz	8 x 4 GB	13 x 1 TB	LSI 2208 (1GB cache)	Yes
Safeguard Sessions Appliance 3000	Yes	1x Intel Xeon E3-1275 v6 3.80GHz	2 x 16 GB	4x2 TB NLSAS	LSI MegaRAID SAS 9361-4i Single	Yes

Product	Redundant PSU	Processor	Memory	Capacity	RAID	IPMI
Safeguard Sessions Appliance 3500	Yes	2x Intel Xeon Silver 4110 2.1GHz	8 x 8 GB	9x2 TB NLSAS	1 x Broadcom MegaRAID SAS 9361-16i + LSI Avago CacheVault Power Module 02 (CVPM02) Kit	Yes

The Safeguard Sessions Appliance 3500 is equipped with a dual-port 10Gbit interface. This interface has SFP+ connectors (not RJ-45) labeled A and B, and can be found right of the Label 1 and 2 Ethernet interfaces. If you want faster communication, for example, in case of high data load, you can connect up to two 10Gbit network cards. These cards are not shipped with the original package and have to be purchased separately.

## Product licensing

### *To enable a trial license*

1. Visit the [Download Trials page](#), and navigate to **One Identity Safeguard for Privileged Sessions > Download Free trial**.
2. Complete the registration form, and click **Download Trial**.
3. You will receive the details on how to access your license key and the download the ISO files in email.

### *To enable a purchased commercial license*

1. Navigate to **My Account > My License Assets** on the [support portal](#).
2. To access your license key, click **Retrieve Key** next to your product.
3. Once you have the license keys, navigate to **My Account > My Products** and click **Download** next to your product. The **Download Software** page is displayed.
4. Download the ISO image (install cdrom) of your product.

If you need help with accessing your license, navigate to the [Licensing Assistance](#) page, and follow the instructions on screen.

# Upgrade and installation instructions

The One Identity Safeguard for Privileged Sessions appliance is built specifically for use only with the One Identity Safeguard for Privileged Sessions software that is already installed and ready for immediate use.

## To upgrade to One Identity Safeguard for Privileged Sessions 7.0 LTS

For step-by-step instructions on upgrading to SPS 7.0 LTS, see [Upgrade Guide](#).

**NOTE:** Due to legal reasons, installation packages of the external indexer application will be available only from the SPS web interface. After SPS versions 6.4 and 6.0.3 are released, the installation packages will be removed from our website.

### ⚠ CAUTION:

**Starting from 6.10.0, SPS (SPS) has changed to hardened SSL settings. As a result, during TLS session establishment, the following items are not considered secure:**

- Private keys and X.509 certificates having RSA or DSA keys shorter than 2048 bits, or ECC keys shorter than 224 bits.
- Certificates (other than Root CA certificates) with signatures that use the SHA-1 or the MD5 hashing algorithm.

**With the hardened SSL settings, SPS will not connect to remote systems that are protected with weak certificates.**

**You cannot upgrade SPS if your configuration contains insecure certificates, keys or certificate chains in any of the following sections:**

- SPS web interface
- internal CA certificate
- connection policy TLS settings
- client X.509 credentials for external LDAP, SMTP or Syslog connections
- server X.509 certificates for external SMTP or Splunk servers
- external indexer credentials (only writable over the REST API)
- CA certificates in Trusted CA Lists and Trust Stores

**Note that the certificates and keys that are used for signing, timestamping, encryption or decryption are not affected by this change.**

## About LTS releases

This is a long-term-supported (LTS) release.

For more information on the product support, see [Product Support - One Identity Safeguard for Privileged Sessions](#).



For a full description of long-term-supported and feature releases, see [Product Life Cycle & Policies - One Identity Safeguard for Privileged Sessions](#).

### If you have a physical appliance based on MBX hardware

One Identity recommends you to upgrade to SPS 7.0 LTS, if you are not running SPS on Pyramid hardware and any of the following is true:

**NOTE:** If you do not know the type of your hardware, see [If you have a physical appliance based on Pyramid hardware](#).

- You wish to take advantage of any of the new features.
- You are running a previous feature release.
- You are running a previous long-term-supported release.

### If you have a physical appliance based on Pyramid hardware

Do NOT upgrade to SPS 7.0 LTS if you are running SPS on Pyramid hardware:

## Verify successful installation

Navigate to **Basic Settings > System > Version details** and verify that SPS is running version 7.0 LTS of the firmware. If not, it means that the upgrade process did not complete properly and SPS performed a rollback to revert to the earlier firmware version. In this case, complete the following steps:

1. Navigate to **Basic Settings > Troubleshooting > Create support bundle** and click **Create support bundle**.
2. Save the resulting ZIP file.
3. [contact our Support Team](#) and send them the file. They will analyze its contents to determine why the upgrade was not completed and assist you in solving the problem.

## More resources

To obtain more information, read the technical documentation or consult the community:

- [One Identity Safeguard for Privileged Sessions - Technical Documentation](#)
- [One Identity Community](#)

# Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan. It supports bidirectional writing (Arabic and Hebrew). The release supports Complex Script (Central Asia – India, Thailand).

This release has the following known capabilities or limitations: OCR is limited to Nuance supported languages. No support for RTL languages.

## About us

One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

## Contacting us

For sales and other inquiries, such as licensing, support, and renewals, visit <https://www.oneidentity.com/company/contact-us.aspx>.

## Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at <https://support.oneidentity.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to videos at [www.YouTube.com/OneIdentity](http://www.YouTube.com/OneIdentity)
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

## Third-party contributions

This appendix includes the open source licenses and attributions applicable to One Identity Safeguard for Privileged Sessions.

# GNU General Public License

Version 2, June 1991

1989, 1991 Free Software Foundation, Inc.

Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

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Version 2, June 1991

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Version 2.1, February 1999

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