

One Identity Safeguard for Privileged Sessions 7.2.1

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 7.2.1 is a 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 7.2.1

- **Streamable session recording playback with Safeguard Desktop Player started from the SPS UI**

From SPS version 7.2, you can play back your session recordings with the Safeguard Desktop Player application started from the SPS UI. This method starts a streamable, on-demand playback.

For more information, see *Streamable session recording playback with Safeguard Desktop Player started from the SPS UI* in the *Administration Guide*.

- **Usability improvements on the user interface**

The user interface has been improved with dark theme.

Usability icons are unified.

- **New hardware support: One Identity Safeguard for Privileged Sessions (SPS) Appliance 4000**

For a detailed description of the new hardware, see the *Installation guide*.

Other improvements

Changes and improvements in SPS REST API Reference Guide version 7.2.1:

- **Querying the session count**

The new `_count` endpoint returns the exact number of sessions. Using this endpoint with a filter in your query, it returns the number of sessions that match the filter criteria. You can also query a snapshot by including the snapshot ID in the query.

For more information, see *Retrieving all sessions from the session database with the advanced search method* in the *SPS REST API Reference Guide*.

- **Advanced search method, `match_count` parameter**

The `match_count` parameter has been removed from the Advanced search method.

- **`/api/schema`**

The `/api/schema` provides an OpenAPI schema about the REST API endpoints under the `/api/configuration` path. You can fetch the `/api/schema` without authentication.

- **VNC settings over REST API**

Now you can do VNC settings over REST API.

- **Telnet settings over REST API**

Now you can do Telnet settings over REST API.

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 with the basic search method" 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 7.2.1

Resolved Issue	Issue ID
<p>If a session was terminated, the following message appeared in the session details view of the "Search" page, under "Monitoring Info > Verdict" field: "Terminated by a content policy". The same message was also found in the "Advanced Search recording.verdict" filter suggestion list, next to the value "ACCEPT_TERMINATED" in brackets. The problem with this text was that it was misleading because a session can be terminated not only by a content policy but also by the user.</p> <p>The "ACCEPT_TERMINATED" recording.verdict message has been fixed to "Terminated by user or content policy". This message now reflects that not only the content policy but also the user can terminate a session.</p>	340185
<p>When generating a report that included the "Four eyes authorizers" subchapter, if there were sessions without four-eyes authorizers, the value pie chart displayed "-1".</p> <p>Similarly, in "Top 10 username/four-eyes authorizer ..." subchapters if the username was unknown, "-1" represented the value.</p> <p>Since "-1" is not an intuitive value to represent unknown data, it has been replaced with "n/a".</p>	340215
<p>Previously, it was possible to change the name of the predefined PCI-DSS report to another via the SPS REST API with a PUT request.</p> <p>This issue has been fixed, because this is not intended behavior. After the fix, if a user wants to change the name of a predefined report via the SPS REST API, the user gets a "Predefined report name cannot be changed" error message. All PCI-DSS reports with a name different from "PCI-DSS" are renamed automatically during firmware upgrade to "PCI-DSS".</p>	340428
<p>The warning icon on the analytics tab was green.</p> <p>This issue has been fixed.</p>	340478
<p>Text input fields are sometimes too short for SSH algorithms and TLS Cipher strings.</p> <p>When specifying algorithms on the "SSH Control/Settings" page, the text input fields did not allow to enter texts longer than 150 characters. On the "MSSQL", "RDP", "Telnet" and "VNC Control/Settings" page, the "Cipher strength" field was also affected by the same limitation.</p> <p>This issue has been fixed. The limit has been raised to 512 characters for SSH algorithms and to 4096 characters for TLS Cipher strings.</p>	340518

Resolved Issue	Issue ID
<p>Online player encoding settings page was unreadable in dark mode.</p> <p>Online player dark mode colors have been fixed on the encoding page.</p>	340524
<p>When using a valid Lucene query between brackets, the logic operators were validated as incorrect and the query was marked as invalid.</p> <p>This issue has been fixed.</p>	340525
<p>In trust stores, when users started to drag and drop something to the certificate upload field, a little overlay appeared on the text field. If the users changed their minds and did not drop the file there, then this overlay stuck. The same problem came up in "Audit keystore > Add new key" (upload-key component).</p> <p>Drag and drop is no longer stuck in a drag state for certification upload and key upload when the drag event leaves the page or is dropped on the wrong target.</p>	340528
<p>RDP connections may fail after installing the January 11, 2022 Windows update.</p> <p>After installing the January 11, 2022 Windows update or later Windows updates containing protections for CVE-2022-21857, RDP connections failed if the following conditions were true:</p> <ul style="list-style-type: none"> • There were multiple domains (for example domain A and B) with a trust relationship. • The RDP connection was transparent or SPS acted as a Remote Desktop Gateway. • NTLM authentication was configured with "Require domain membership" enabled. • SPS was in domain A. • The target server and user were in domain B. <p>In these cases the following line was displayed in the system log: "DC refused user authentication;"</p> <p>The issue is fixed now. The NTLM authentication process has been improved to work with the new security checks.</p>	340538
<p>When trying to generate video and screenshot files over the REST API to an MSSQL session using the <code>/api/audit/sessions/<session-id>/screenshots/_generate</code> and <code>/api/audit/sessions/<session-id>/video/_generate</code> endpoints, respectively, the indexer accepted the job, instead of notifying the users that generating screenshot and video files are not supported by the MSSQL session.</p> <p>This has been fixed. Now, when users try to generate a screenshot or video for an MSSQL session over REST API, they receive a 400</p>	340553

Resolved Issue	Issue ID
ContentGenerationNotSupported error on REST API.	
<p>Large number of gateway authentications might cause all connections to terminate.</p> <p>In some cases, after a very large number of gateway authentication, all connections of the affected protocol could terminate due to a double-free issue. In these cases, a core file was also generated, and a stackdump was written to the system log. The issue primarily affected HTTP connections, and, to a smaller degree, RDP connections where SPS was acting as a Remote Desktop Gateway. This issue has been fixed.</p>	340554
<p>When creating or editing a trust store, the UI let users to add the same URLs more than once.</p> <p>This issue has been fixed. When creating or editing a trust store, a validation process now prevents adding the same <code>crl_url</code> more than once.</p>	340566
<p>When trying to sort sessions on SPS UI under the Search page by analytics score related fields (host login, login time, keystroke, mouse or window title), if none of the sessions had data for the selected analytics field, the REST API of SPS mistakenly returned 400 <code>NotParsableQuery</code> error referring to that the received search query is invalid.</p> <p>This has been fixed now and sorting should not fail if data is not available for the analytics score related fields.</p>	340583
<p>Trying to generate a Report from the SPS REST API with an ISO-8061 date format that correctly does not have a month part in the start or the end date field, returns an error.</p> <p>When sending a request to the SPS report generating API endpoint (<code>/api/reports</code>) with a valid ISO 8061 date format in the start or the end date field parameter, SPS responds with an error message if one of the date fields contains a date that does not have a month part. As a result of this, the report generation does not start.</p> <p>This has been fixed, users can specify the date in the start and end date fields in the SPS REST API in all previous formats and also in ISO 8061 formats. This was achieved by introducing an ISO date parser and keeping the old date parser too. Now SPS successfully performs the report generation between the desired dates.</p>	340592
<p>Users trying to generate a Report from the SPS REST API with an ISO-8061 date format containing week numbers in the start or the end date field (for example 2022-W37-1) got an error message.</p> <p>When sending a request to the report generating API endpoint (<code>/api/reports</code>) with a valid ISO 8061 date format containing week numbers in the start or the end date field parameter, SPS responded with a 400 "InvalidDate" error. As a result of this, the report generation did not</p>	340607

Resolved Issue	Issue ID
<p>start.</p> <p>This has been fixed, now the users can specify the date in the start and end date fields in the SPS REST API in all previous formats and also in ISO 8061 formats. The fix included introducing an ISO date parser and keeping the old date parser too. SPS now successfully performs the report generation between the desired dates.</p>	
<p>When users tried to search for a session in the audit trail which was not indexed using an indexing policy with "full_indexing" enabled, a misleading error message was shown.</p> <p>Previously, multiple reasons could lead to this scenario (for example indexing was in progress) and there was only a general error message to handle them. This has been changed and a message specific to the cause of error is shown.</p>	340613
<p>On the "Create & Manage Reports" page, when creating or editing a content-based subchapter, the "Connection policy" and the "Channel policy" fields are changed to drop-down, selectable menus.</p>	340616
<p>The order of the analytic cards on "Analytics summary" page could change randomly.</p> <p>This issue has been fixed. The order of the analytic cards always follow the same structure.</p>	340620
<p>When the user tries to download an archived session audit trail on central search deployment, the download could fail because SPS could not find the audit trail and the user gets an error message when opening a new tab in the browser.</p> <p>Trying to download an archived audit trail from SPS in central search deployment gave back an error message when opening a new tab in the browser. This was due to SPS trying to obtain the audit trail file through the local Content Service of the central search node, but it did not succeed because the given audit trail was only available through the Content Service of the minion node on which the given session was recorded.</p> <p>This issue has been fixed. When the user tries to download an archived trail from the central search node, SPS contacts the Content Service of the minion node on which the session was recorded.</p>	340626
<p>When creating content-based subchapters under "Reporting > Create & Manage Reports > View & edit subchapters > Content-based" subchapters tab with "Connection policy" filter for a protocol, if the connection policy filter was not a valid connection policy ID, the SPS REST API responded with an internal error, despite the error being a user error.</p> <p>This has been fixed, and now, if the specified connection policy filter is not a valid connection policy ID, the SPS REST API responds with a 400 "Bad</p>	340627

Resolved Issue	Issue ID
Request" error.	
<p>Permission error when attempting to start manual backup, restore, or archive operation with per-connection-policy permission.</p> <p>When a user who had read and write/perform permission for only a few select connection policies within a protocol (but not all connection policies of that protocol) attempted to manually start the backup, restore, or archive operations for such a connection policy, the operation failed to start and a permission error was shown saying "Permission error / Access denied to object; object='/config/scb//connections/connection[@id = '...']', access='write'".</p> <p>This issue has been fixed. Now users can start the backup, restore, and archive operations for all connection policies for which they had been granted the read and write/perform permission.</p>	380785
<p>The footer of the "About" sidesheet panel was displayed incorrectly in dark mode.</p> <p>While the color of the default text switched to white, the footer of the sidesheet background remained white, causing a visibility issue.</p> <p>This issue has been fixed.</p>	386175
<p>When the user tried to create and add a search-based subchapter to a report with an invalid query from the "Search" page and corrected the invalid query at the end of the saving process, the UI included the new subchapter twice in the selected report.</p> <p>This issue has been fixed.</p>	387233
<p>The cleanup policy sidesheet action row is updated to match the expected style.</p>	387363
<p>Indexer policy field allowed to use the Next button even when no indexer policy value was selected.</p> <p>Indexer policy field now requires an indexer policy value to be set when indexing is enabled in Quick Connection Setup.</p>	387412
<p>Users could save the X.509 editing page, when the "Status" was "Enabled" but they did not select any trust store.</p> <p>Fixed the missing 'required' validation on the "X.509 login method form > Trust store field".</p> <p>Now users cannot submit the form without a trust store selected.</p>	387447
<p>"HTTP Control Settings" page did not show the name of the "Error template".</p> <p>This issue has been fixed.</p>	387687

Resolved Issue	Issue ID
<p>RDP logon could cause all connections to terminate.</p> <p>In some rare cases, a domain user successfully logging into a domain joined RDP server via SPS could cause all RDP connections to terminate. In this case, a core file was also generated. This issue mainly affected transparent connections, or connections where SPS was acting as an RD Gateway, and where the server was behaving in a specific incorrect way during SPNEGO-based NLA authentication.</p> <p>This has been fixed, the non-standard server behavior is now handled gracefully, and the affected connections will now pass.</p>	388421
<p>Some SSH host keys were not listed.</p> <p>If the SSH target servers used "ecdsa-sha2-nistp384" or "ecdsa-sha2-nistp521" host keys, then those keys were not displayed under "SSH Control > Server" host keys. This error has been fixed.</p> <p>As a consequence, the key types above are also supported on the /api/ssh-host-keys endpoint of the REST API.</p>	388635
<p>Protocols TLS 1.0 and 1.1 are removed from indexer service. Only TLS 1.2 or newer protocol versions are supported on the TCP port of the external indexer.</p>	389039
<p>When editing an AD/LDAP server in the case of an already specified Trust store under "User & Access Control > Login Options > Manage AD/LDAP servers", although it was possible to select "Certificate" with "None" status, an error occurred while committing the changes.</p> <p>This issue has been fixed. You can save and commit your changes when editing AD/LDAP servers.</p>	400763
<p>Even though the '_' character is allowed in an FQDN on the REST API, users could not set a server with this name using the web UI.</p> <p>FQDN validations have been fixed on the UI.</p>	400765
<p>Misleading error message displayed when MSSQL inband target server does not exist.</p> <p>In MSSQL connections, using inband target selection, when the DNS name resolution of the target server hostname failed, a misleading login error message, "Gateway authentication failed", was displayed in the MSSQL client. In this case, a traceback was also written to the system log.</p> <p>These errors have been fixed, and the error message has been updated to reflect that name resolution has failed.</p>	404204
<p>Audit trails and events of Citrix ICA connections may have incorrect dates.</p> <p>The channels in ICA audit trails recorded on affected SPS versions may appear to be recorded in the future, specifically at, or after 2035-10-</p>	405227

Resolved Issue**Issue ID**

29T06:32:22 (UTC). Since audit trails also serve as a basis for audit events, the dates and times shown on the Search interface are also incorrect for the affected sessions.

Digitally signed timestamps created by Time Stamping Authorities, when this feature is enabled for the audit trail, are not affected.

Also, only the records indicating the start of a new channel have wrong timestamps in the audit trail. The actual audited traffic, such as keystrokes, mouse events or graphical content, internally have correct timestamps, but due to an automatic time correction during indexing, those events are also displayed with incorrectly adjusted dates and times.

The audit trail recording error has been fixed, SPS now writes correct times in the audit trail when opening new channels. Existing audit trails recorded with an affected SPS, however, will still show incorrect dates and times.

The RAID status is not displayed after the installation.

407479

Previously, at the end of the installation of Safeguard 4000, the RAID sync status was not displayed. This issue has been corrected.

Icons disappeared from policy editing pages for all users, except for local administrators, even if users had "read and write/perform" permissions.

410511

On the web user interface, icons, such as addition and deletion of rows, and so on, disappeared from most of the policy editing pages for all users, except for the local administrator, even if the user had "read and write/perform" permission for the particular page. This has been fixed, now the icons do appear again for all users who have the necessary access permissions for editing policies or configuration.

Connecting to a remote SSH server through SPS using agent authentication can cause SSH connections to terminate.

412260

When the relayed authentication method was set to 'Public key' with 'Agent' selected for an SSH Authentication policy and users had multiple keys in their SSH agent with at least one RSA key, connecting to a remote SSH server through SPS could cause all SSH connections to terminate.

In this case, a core file was generated and a backtrace was written to the system log.

This issue has been fixed, authenticating with an SSH agent containing multiple keys is possible again.

Data migration failed on hardware installations.

412397

Previously, data migration failed on the hardware installations, because the stopped core firmware caused the target machines to be in secondary state, which prevented the data to be copied to the target machines. This issue has been fixed. Now, on all hardware, data migration ensures that the target machines are in primary state.

Table 2: Resolved Common Vulnerabilities and Exposures (CVE) in release 7.2.1

Resolved Issue	Issue ID
bind9:	CVE-2022-3094
curl:	CVE-2022-43552
	CVE-2023-23916
	CVE-2023-27533
	CVE-2023-27534
	CVE-2023-27535
	CVE-2023-27536
	CVE-2023-27538
gnutls28:	CVE-2023-0361
heimdal:	CVE-2021-44758
	CVE-2022-3437
	CVE-2022-42898
	CVE-2022-44640
	CVE-2022-45142
krb5:	CVE-2021-36222
	CVE-2021-37750
	CVE-2022-42898
ldb:	CVE-2021-3670
	CVE-2022-32745
libsba:	CVE-2022-47629
libxpm:	CVE-2022-44617
	CVE-2022-46285
	CVE-2022-4883
linux:	CVE-2022-2663
	CVE-2022-3061
	CVE-2022-3545

Resolved Issue	Issue ID
	CVE-2022-3643
	CVE-2022-41218
	CVE-2022-4139
	CVE-2022-42896
	CVE-2022-43945
	CVE-2022-45934
	CVE-2022-47520
	CVE-2023-0266
	CVE-2023-0461
net-snmp:	CVE-2022-4479
	CVE-2022-44792
	CVE-2022-44793
nss:	CVE-2023-0767
openjdk-17:	CVE-2023-21835
	CVE-2023-21843
openssl:	CVE-2022-4304
	CVE-2022-4450
	CVE-2023-0215
	CVE-2023-0286
pam:	CVE-2022-28321
php7.4:	CVE-2022-31631
	CVE-2023-0567
	CVE-2023-0568
	CVE-2023-0662
postgresql-12:	CVE-2022-41862
protobuf:	CVE-2021-22570
	CVE-2022-1941
python-future:	CVE-2022-40899
python-urllib3:	CVE-2021-33503

Resolved Issue	Issue ID
python3.8:	CVE-2023-24329
rsync:	CVE-2022-29154
samba:	CVE-2022-3437
	CVE-2022-3796
	CVE-2022-37966
	CVE-2022-37967
	CVE-2022-38023
	CVE-2022-42898
	CVE-2022-44640
	CVE-2022-45141
setuptools:	CVE-2022-40897
sudo:	CVE-2023-22809
systemd:	CVE-2022-3821
	CVE-2022-4415
tar:	CVE-2022-48303
tiff:	CVE-2023-0795
	CVE-2023-0796
	CVE-2023-0797
	CVE-2023-0798
	CVE-2023-0799
	CVE-2023-0800
	CVE-2023-0801
	CVE-2023-0802
	CVE-2023-0803
	CVE-2023-0804
vim:	CVE-2022-0392
	CVE-2022-0417
	CVE-2022-47024
	CVE-2023-0049

Resolved Issue	Issue ID
	CVE-2023-0054
	CVE-2023-0288
	CVE-2023-0433
	CVE-2023-1170
	CVE-2023-1175
	CVE-2023-1264

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 3: General known issues

Known Issue

When setting the "Archive data older than:" value to 0 under "Archive policies", you enable same day archiving. Depending on the quantity of the sessions to be archived, the index job can fail if the .zat file is removed by the archiving process before the content indexing is completed. To fix this issue, you must reindex the unindexed sessions manually.;

⚠ CAUTION:

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.

Upgrade as follows:

- 1. Perform the upgrade to 7.0 LTS with your current license.**
- 2. Update your SPS license to 7.0 LTS.**

For a new SPS license for 7.0 LTS, [contact our Licensing Team](#).

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:

- For the minimum TLS version, select TLS version 1.2.
- For the maximum TLS version, select TLS version 1.3.

For more information, see ["Verifying certificates with Certificate Authorities using trust"](#)

Known Issue

[stores" in the Administration Guide.](#)

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.

Report generation may fail if a report subchapter references a connection policy that has 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.

Table 4: General known issues

Known Issue	Issue ID
External indexer disconnected due to certificates expiry. You are only affected by this issue if you have enabled external indexing while running SPS version 6.0.4 or 6.4.0 or later where the external indexer certificates were created with a limit of 800 days. To resolve this issue, see External indexer disconnected due to certificates expiry (4368875) (oneidentity.com) .	PAM-16883

System requirements

Before installing SPS 7.2.1, 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

Supported web browsers

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

Your browser must support:

- TLS-encrypted HTTPS connections with strong cipher algorithms
- JavaScript
- Cookies

SPS supports browsers as listed in the following table.

SPS version	IE11	Google Chrome	Safari	Mozilla Firefox (latest version)	Microsoft EDGE	Microsoft EDGE Legacy
7.1.0	-	✓	✓	✓	✓	-
7.0 LTS	-	✓	✓	✓	✓	-
6.13.0	-	✓	✓	✓	✓	-
6.12.0	✓	✓	✓	✓	✓	-
6.11.0	✓	✓	✓	✓	✓	-
6.10.0	✓	✓	✓	✓	✓	-
6.9.0	✓	✓	✓	✓	✓	-
6.8.0	✓	✓	✓	✓	✓	-

Required applications and plugins

To use SPS, install and enable the following applications and plugins.

NOTE: To replay audit trails with SPS 6.9 or earlier versions with Internet Explorer 11 (IE11), install the Google WebM Video for Microsoft Internet Explorer plugin.

SPS version	JavaScript	Google WebM Video for Microsoft Internet Explorer plugin
7.1.0	✓	-
7.0 LTS	✓	-
6.13.0	✓	-
6.12.0	✓	-
6.11.0	✓	-
6.10.0	✓	-
6.9.0	✓	Required for IE11
6.8.0	✓	Required for IE11

Phased out browsers

SPS does not support anymore the browsers listed in the following table.

Browser	Phased out in
IE10	SPS 4 F3
IE9	SPS 4 F3

Starting from version 4 F3, SPS does not support Internet Explorer 9 and 10, because the official support for them ended in January, 2016.

SPS web UI

Opening the web UI of SPS in multiple browser windows or tabs is not supported.

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.

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
Safeguard Sessions	Yes	1x Intel Xeon E3-	2 x 16 GB	4x2 TB NLSAS	LSI MegaRAID	Yes

Product	Redundant PSU	Processor	Memory	Capacity	RAID	IPMI
Appliance 3000		1275 v6 3.80GHz			SAS 9361-4i Single	
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
Safeguard Sessions Appliance 4000	Yes	1 x Intel Xeon Silver ICX 4310T @ 2.30GHz, 10C/20T	8 x 8 GB	4x20 TB SAS/SATA	1 x Broadcom 9560-8i RAID controller 1 x Broadcom CacheVault battery	Yes

The Safeguard Sessions Appliance 3500 is equipped with a dual-port 10Gbit interface. This interface has SFP+ connectors (not RJ-45) labeled 5 and 6, 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 7.2.1

For step-by-step instructions on upgrading to SPS 7.2.1, 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 feature releases

This is a feature 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 7.2.1, 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 OK with having to continuously upgrade to the latest feature release to remain supported.

We are releasing new feature releases approximately once every 2 months.

If you have a physical appliance based on Pyramid hardware

Do NOT upgrade to SPS 7.2.1 if you are running SPS on Pyramid hardware:

Downgrading from a feature release

Do NOT downgrade from a feature release.

CAUTION:

Downgrading from a feature release is not supported. If you upgrade from an LTS release (for example, 4.0) to a feature release (4.1), you have to keep upgrading with each new feature release until the next LTS version (in this case, 5.0) is published.

Verify successful installation

Navigate to **Basic Settings > System > Version details** and verify that SPS is running version 7.2.1 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:

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- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to videos at www.YouTube.com/OneIdentity
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

Third-party contributions

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Version 2, June 1991

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Section 4

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Section 5

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Section 6

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- b. Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on

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- e. Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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