

One Identity Safeguard for Privileged Sessions 6.5

Release Notes

March 2020

These release notes provide information about the One Identity Safeguard for Privileged Sessions 6.5 release.

About this release

One Identity Safeguard for Privileged Sessions Version 6.5 is a release with new features and resolved issues. For details, see:

- [New features](#)
- [Resolved 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 SPS version: 6.5:

Safeguard for Privileged Passwords (SPP) fetcher role

A new, experimental SPP fetcher role has been added to the **Cluster management** roles. It fetches the workflow from SPP. The fetched data can be viewed on the **Search** interface.

CAUTION:

This is an **EXPERIMENTAL** feature. It is documented, but the performance impact on production systems has not been determined yet. Therefore this feature is not yet covered by support. However, you are welcome to try it (preferably in non-production systems) and if you have any feedback, send it to feedback-sps@oneidentity.com.

Audit data access rules

You can now restrict users to access audit data only for sessions for which they are granted permission.

Renaming of the AAA menu and submenus

The following menu items have been renamed. Note that there is no functionality change.

Old name	New name
AAA	Users & Access Control
Group Management	Local User Groups
Access Control	Appliance Access
Permission Query	Access Rights Report
Accounting	Configuration History

Permissions settings for user groups under **<Protocol name> Control > Connections > Access Control > Permission** have also been renamed from **Search&Authorize** to **Follow&Authorize** and **Search** to **Follow**.

Trusted CA CRL handling

SPS now checks if the Certificate Revocation List (CRL) has expired and that the CRL has been signed by the same Certificate Authority (CA).

Mouse movement algorithm

The *mouse-movement-based user authentication algorithm* is able to tell whether a user is who they say they are based on their mouse movements.

RDP login screen enhancements

The RDP login screen now allows you to paste text-based clipboard contents. It also provides a warning if Caps Lock is on.

REST API improvements

- You can now check the synchronization status of cluster nodes. The value of the `sync_status` field displays whether the configuration of the SPS cluster node is synchronized with the configuration of the Central-Management node. For more information, see ["Query the status of all nodes in the cluster" in the REST API Reference Guide](#) and ["Query the status of one particular node" in the REST API Reference Guide](#).

NOT FETCHED has been added as a new status to **Basic Settings > Cluster management > Cluster management status**.

- For ICA, RDP and SSH protocols, the `inactivity_timeout` parameter has been added to the `api/configuration/<protocol>/settings_policies` endpoint.

In addition to the REST API, the following has changed on the SPS UI:

The **User idle timeout** option has been added to **ICA, RDP, SSH, Telnet and VNC Control > Settings**. If no user activity is detected, it terminates the session after the configured time has passed since the last user activity.

- You can now generate reports for a custom time period on the `api/configuration/reporting/reports` endpoint.
- The list of Telnet pattern sets that help to extract the username from Telnet connections is now available in REST API. The `api/configuration/telnet/pattern_sets` endpoint has been added.
- The mouse algorithm has been added to the `/api/configuration/policies/analytics` endpoint.

Other improvements

- Starting from SPS versions 6.0.4 and 6.5.0, certificates with SHA1-based signatures are no longer trusted for Active Directory or LDAP authentication.
- New parameters have been added to the Authentication and Authorization and Credential Store plugins to replace deprecated parameters.

Deprecated features

Arguments of Authentication and Authorization and Credential Store plugins that begin with target_ have been deprecated

These arguments were deprecated because the target_host or target_server arguments either contained a hostname or an IP address.

Now, new arguments have been added to the Authentication and Authorization and Credential Store plugins to replace deprecated arguments. The new argument names explicitly define the values they contain. That is, a server_ip argument will always contain an IP address, and a server_hostname argument will always contain a hostname.

The deprecated arguments are the following:

Authentication and Authorization plugin: get_password_list and get_private_key_list input arguments:

- target_username
- target_host
- target_port
- target_domain

Credential Store plugin: authorize method:

- target_server
- target_port
- target_username

Resolved issues

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

Table 1: General resolved issues in release 6.5.0

Resolved Issue	Issue ID
SSH connections may not be denied when the server host key algorithm changes and the server host key check method is set to "Accept key for the first time".	PAM-11685
SPS can validate an SSH server by checking its host public key against a set of stored trusted public keys. When this host key check method was set to "Accept key for the first time" in "SSH Control > Connections > Server side hostkey settings > Plain host key check" and SPS already stored a trusted key in "SSH Control > Server Host Keys" of the type "ssh-rsa", and the server	

Resolved Issue

Issue ID

supported only the "ssh-ed25519" host key algorithm, then the connection succeeded, even though it should have been rejected.

The cause of this error was that SPS and the server negotiated "ssh-ed25519" as the host key algorithm, but since no "ssh-ed25519" host key was stored in SPS yet, it proceeded to learn the new "ssh-ed25519" key. This could have been used by a rogue server impersonating a legitimate server, to trick SPS into accepting a connection by offering a host key algorithm that the legitimate server did not offer.

This has been fixed, SPS now only offers those host key algorithms for which it already has a trusted key. It only offers all host key algorithms when no trusted host key is stored yet for the target server.

SSH connections may fail when server side host key check method is set to "Only accept trusted keys" PAM-11531

SPS can validate an SSH server by checking its host public key against a set of stored trusted public keys. When this host key check method was set to "Only accept trusted keys" in "SSH Control > Connections > Server side hostkey settings > Plain host key check" and SPS has already stored a correct trusted server host key in "SSH Control > Server Host Keys" of the type "ssh-rsa", and the server supported both the "ssh-ed25519" and the "ssh-rsa" host key algorithms, then the connection failed, even though it should have succeeded.

The cause of the connection failure was that SPS and the server negotiated the "ssh-ed25519" host key algorithm, not "ssh-rsa", but no trusted "ssh-ed25519" host key was stored.

This has been fixed, SPS now only offers to the server those host key algorithms that it already stores a trusted host key for. When the host key check method is set to "Accept key for the first time", and no host key is stored yet, all algorithms are offered. This allows learning a preferred host key.

View log files > Tail window remains open even after the administrator has logged out. PAM-11510

The browser window displaying the live machine logs (Basic Settings > Troubleshooting > View log files > Tail) did not stop displaying new log messages after an administrator has logged out of their session. This has been corrected. Note that the window displaying the past log messages remains open even after logging out of the session.

Missing timestamps in audit trails and "Error connecting TSA" messages in the logs. PAM-11391

A bug in ICA proxy caused missing timestamps in audit trails and "Error connecting TSA" messages in the logs. This has been fixed.

Resolved Issue	Issue ID
<p>Change in the trusted host keys did not trigger configuration synchronization in the SPS cluster.</p> <p>Adding or removing a trusted host key now triggers configuration synchronization in the SPS cluster.</p>	PAM-11390
<p>From now on, Chrome on a newer version of macOS accepts the certificate generated by SPS.</p> <p>The macOS has stricened its certificate policies, andthe generated certificate of SPS was not compliant with it. On Chrome, one could not turn off the warnings about the invalid certificate, rendering users unable to configure SPS for the first time.</p> <p>During initial configuration (or later) one could upload a custom server certificate of course, but the browser did not allow the user to reach SPS to configure it.</p> <p>The newly generated cert has the following additional properties:</p> <ul style="list-style-type: none"> • validity is 800 days long; • extendedKeyUsage has been specified, <p>which makes it compliant with the recent Chrome+macOS combination.</p>	PAM-11122
<p>Invalid software RAID-related events generated during one-shot checking (affects only MBX T1 hardware)</p> <p>During the periodic checking of the software RAID array, DeviceDisappeared and NewDevice events were generated. These events were sent through SNMP or email, depending on the configuration. This has now been fixed and these events are no longer generated.</p>	PAM-10771
<p>Core files are generated for ICA sessions</p> <p>In certain situations after the client has closed an ICA session, SPS generated a core file. This has been corrected.</p>	PAM-10316
<p>A systemd service (proc-sys-fs-binfmt_misc.mount) failed to start at boot.</p> <p>The proc-sys-fs-binfmt_misc.mount unit failed to start at boot. This generated alerts for the customer which resulted in SNMP trap or email, depending on the configuration. The service now starts at boot.</p>	PAM-9935
<p>In case of high amount of information, paginated data storage solution was implemented, but not used by the indexer tool.</p> <p>To prevent overloading the database operations, data storage, for example, screen content storage during information collection from audit trail now works in an optimized way.</p>	PAM-11523
<p>When high amount of audit trails were stored on the disk, a process could cause performance issues during upgrade, HA takeover or boot.</p>	PAM-11618

Resolved Issue	Issue ID
After this fix this process will run only once.	
Under the "Reporting > Search subchapters" page, it was possible to navigate away from the page without saving the changes to the configuration, without any notification.	PAM-11347
We have created a notification dialog and when the user has unsaved changes, we will notify them on page leave.	

Table 2: General resolved issues in release 6.4.0

Resolved Issue	Issue ID
Traceback in the logs after rejecting a four-eyes authorization request A traceback appeared in the logs after rejecting a four-eyes authorization request. This has been corrected, the event is now handled properly.	PAM-10881
Traceback appears in the logs if the LDAP server is down A traceback appeared in the logs if the LDAP server was unavailable and SPS tried to access this server. This has been corrected, the error is now properly handled.	PAM-11028
False data in archiving notice After deleting a Connection Policy that had recorded sessions and creating a new policy with the same name, the number of archived files in the archiving notice was invalid. This has been corrected. NOTE: It is not recommended to delete Connection Policies that were used in production systems, as this can prevent SPS from archiving the files and data related to these policies. We recommend disabling unneeded Connection Policies instead.	PAM-9615
After upgrading a High Availability cluster, the Basic Settings > High Availability page displayed the Boot firmware version of the Other node incorrectly After upgrading a High Availability cluster, the Basic Settings > High Availability page displayed the Boot firmware version of the Other node incorrectly, as if that node was still running the old firmware version. Despite the information displayed on the web user interface, both nodes were running the new firmware version. This has been fixed.	PAM-10413
Timeout in RDGW sessions causes core files on SPS If a connection required for a Remote Desktop Gateway session could not be established within the expected timeout, the session failed and a core file appeared on SPS. This has been corrected, such timeout errors are now handled properly.	PAM-11123
Resizing the screen in ICA sessions to span multiple monitors did not work	PAM-10988

Resolved Issue	Issue ID
<p>If the number of relayed monitor screens was changed during an ICA session the change was not relayed by SPS properly which made such changes impossible. The problem is now fixed and it is possible to change the number of monitors during the session.</p>	
<p>Sessions are terminated when using the credit-card detection and alerting features</p> <p>In certain cases when the credit-card detection and alerting features were used, SPS terminated the affected sessions even when the Terminate action was not selected. This has been corrected.</p>	PAM-11134
<p>RDP sessions shown as active even after client disconnects</p> <p>In certain cases, SPS reported RDP sessions as active even after the client has disconnected. This has been corrected.</p>	PAM-11168
<p>Client unexpectedly closes RemoteApp sessions</p> <p>In certain situations using RemoteApp connections, SPS sent an unneeded certificate to the client, causing the client to close the connection. This has been corrected, the unneeded certificate is not sent to the client.</p>	PAM-11187
<p>Overriding the global verbosity level in ICA connection policies had no effect</p> <p>In order to help troubleshooting, the global log verbosity level can be overridden in connection policies. This setting was ignored in ICA connections. This has been fixed, ICA connection policies now also allow setting a per-connection verbosity level.</p>	PAM-11251
<p>Configuration changes not taking effect</p> <p>In some cases, when the user modified system-related configuration settings of SPS, they did not take effect after committing the changes. This could happen for example when committing networking changes, and restarting the networking service was very slow. This has been corrected, such errors are now handled properly.</p>	PAM-10336
<p>Password reuse always allowed when changing the password over REST</p> <p>It is possible to configure SPS to prevent reusing previous passwords when changing the user password. This was not enforced when the password changed was performed through the REST API. It is now fixed and the restriction is enforced over the API, too.</p>	PAM-11213
<p>Remote Desktop Gateway authentication fails for Windows 2012 R2 clients</p> <p>Remote Desktop Gateway authentication failed for Windows 2012 R2 clients (Windows client version: Windows 2012 R2 , ver. 6.3.9600 Protocol 8.1). This has been corrected.</p>	PAM-9967
<p>IPv6 routing table is missing from the support bundle</p> <p>The IPv6 routing table was missing from the support bundle. This has been</p>	PAM-10354

Resolved Issue	Issue ID
corrected.	
<p>Improve the debug logging of Idapservice</p> <p>The debug log messages of the Idapservice process now include a unique id to simplify troubleshooting of request-response pairs.</p>	PAM-11135
<p>Failed screenshots in content subchapter reports</p> <p>Using external-indexer or near real time indexing lead to failed screenshots in content subchapter reports, indicated by the following error message in the logs:</p> <p>'Cannot retrieve image for screencontent'</p> <p>This has been corrected, screenshots are now properly generated for the reports.</p>	PAM-10190
<p>Following trail downloaded from Active Connections generates multiple Audit trail download events on Search</p> <p>When following an .srs trail downloaded from Active Connections page through Desktop Player, it spammed the 'Audit trail downloads' section on Search > Details page of the connection in every second.</p> <p>This has been fixed, the 'Audit trail downloads' section displays now only once the event of download per trail download initiated from Active Connections page.</p>	PAM-10669
<p>Additional Metadata field may contain Gateway Password</p> <p>In certain cases, the "Additional Metadata" field contained the Gateway Password used in the session. This is the password that the user used to authenticate on the SPS gateway, and belongs to the Gateway Username of the user. The passwords used to authenticate on the target servers were not affected.</p> <p>For this error to occur, all of the following circumstances must have been met:</p> <ul style="list-style-type: none"> • the client used an SSH session to access remote servers • in a joined SPS-SPP scenario • that used the SPS-initiated workflow • where the Authentication Policy of the SSH Connection Policy used the "Password" Gateway Authentication Method • and the version of the SPS appliance is 6.2.0 or 6.0.2. <p>The error has been corrected.</p> <p>To find out whether this error has occurred in your environment, complete the following steps.</p>	PAM-11073

Resolved Issue

Issue ID

1. Login to your SPS appliance as a user who has access to the Search page.
2. On the Search page, enter the following search query:
recording.additional_metadata: gp=
3.
 - If there are no search results, the error did not occur in your environment. Upgrade to SPS version 6.3.0a or 6.0.3 to ensure that it does not occur in the future.
 - If there are search results, continue with the next step of this procedure.
4. Click the ... button on the right of the **Export CSV** button.
5. Add the Gateway Username and the Recording Connection Policy fields to the list of fields to export.
6. Check which Authentication Policies do the Connection Policies that appear in Recording Connection Policy fields use.
7. Navigate to **SSH Control > Authentication Policies**, and check which Authentication Backend do the affected Authentication Policies use.
8. Contact the users appearing in the Gateway Username field to change their password in the affected backends.

Deadlock in HTTP proxy

PAM-11016

In some rare cases the HTTP proxy could get in a deadlock and stop working. This has been fixed.

HA takeover issues after multi-step upgrades

PAM-11292

If a system was upgraded in multiple steps (eg. from 5.11 to 6.0 to 6.3) without an HA takeover between the upgrades, a range of problems occurred while detecting the version of the firmware on the master and slave nodes. The problem has been fixed and these kinds of upgrades now work well.

Report generator service failure

PAM-10389

In some cases, the report generator service on the SPS appliance could fail due to a problem in the way the "Top 10 users" reports were generated. The problem has been fixed and reports are generated properly.

Error messages not shown during Starling join

PAM-10969

When a join to the Starling platform was initiated, the error messages such as SSL certificate errors were not shown to the user, making troubleshooting difficult.

These error messages are now shown on the UI.

Resolved Issue	Issue ID
<p>Dynamic Virtual Channels in RDP proxy are not handled properly</p> <p>Some of the Dynamic Virtual Channels in RDP proxy were allowed even if they were not enabled in a channel policy.</p> <p>Now it has been fixed and must be explicitly added to the "Permitted channels" under the Dynamic Virtual Channels channel policy.</p>	PAM-11319
<p>The built-in Cisco pattern set in telnet proxy does not work with Cisco Nexus 5000 devices</p> <p>Due to a different login prompt, the built-in Cisco pattern set did not extract the username properly in Cisco Nexus 5000 devices.</p> <p>This has been fixed.</p>	PAM-10908
<p>Wrong file transfer direction in RDP proxy</p> <p>File uploads (from the client machine to the remote server) were tagged with "download", and downloads (from the remote server to the client machine) with "upload".</p> <p>This has been corrected and tagged properly.</p>	PAM-10799

Table 3: General resolved issues in release 6.3.0

Resolved Issue	Issue ID
<p>Downloading audit trails fails on the Central Search node</p> <p>In a cluster environment, downloading from audit trails from the web interface failed on the Central Search node. This has been corrected.</p>	PAM-10971
<p>The Protocol field on the Search page contains invalid value</p> <p>In certain cases, the Protocol field contained the '-1' value instead of the name of the protocol. This has been corrected.</p>	PAM-10906
<p>The connections of an SPP access request on a joined SPS-SPP fail after upgrading to SPS 6.2</p> <p>The automatic upgrade of the SGAA/SGCredStore plugins caused a failure during the connections due to a plugin wrapper selection mistake. The plugin wrapper selection is fixed, connections now work as expected.</p>	PAM-10888
<p>'Analytics details are not available' warning appears on the UI</p> <p>In some cases, the 'Analytics details are not available' warning was displayed even though the analytics scores were available for the session.</p>	PAM-10886
<p>The Analytics tab of a session keeps loading infinitely</p> <p>Opening the Analytics tab of a session without the required privileges kept loading the page infinitely, instead of displaying a permission error. This has been corrected.</p>	PAM-10859

Resolved Issue	Issue ID
<p>If the session database is very large, opening new sessions is very slow</p> <p>In some cases, persisting indexer job status updates and command/title events made a big load on the database which caused big delays in opening new connections through SPS.</p> <p>The way of persisting indexer events to the database was optimized in a way that it should not add delay on new connections.</p>	PAM-10821
<p>Clicking on the chart in Flow view does not create the proper search query</p> <p>Click on the chart in the Flow view of the Search page created incorrect search queries. This has been corrected.</p>	PAM-10794
<p>Report queries are not updated</p> <p>In some cases, the queries of certain report subchapters were not updated, and therefore the reports contained outdated information. This has been corrected.</p>	PAM-10787
None	PAM-10787
<p>Error in handling compressed ICA traffic causes the server to terminate the session</p> <p>In some cases, SPS handled compressed ICA traffic incorrectly, causing the server to terminate the session. The following log message appeared in the system logs:</p> <p>'Compression PD: Unable to expand slab'</p> <p>This has been corrected, the traffic is now handled properly.</p>	PAM-10781
<p>Corrections to the on-screen instructions on checking plugin integrity</p> <p>The instructions on how to check the integrity of the plugins have been updated on the Basic Settings > Plugins page.</p>	PAM-10675
<p>None</p> <p>When selecting a session in the Search page, clicking the 'Analytics' tab for first time showed an unnecessary error message for a second, before the actual contents were loaded. This has been corrected.</p>	PAM-10671
<p>Files copy-pasted in FreeRDP sessions cannot be exported</p> <p>Files copy-pasted in FreeRDP sessions were recorded in the audit trail, but exporting them failed. This has been corrected.</p>	PAM-10668
<p>Clicking the Back button on the Search page removes every filter</p> <p>Clicking the Back button of the browser on the Search page removed every filter, not only the last one. This has been corrected.</p>	PAM-10636
After deleting a filter on the Search page you cannot re-add it	PAM-

Resolved Issue	Issue ID
After deleting a filter from the query on the Search page, clicking on the same filter to re-add the filter did not have any effect. This has been corrected.	10583
Duplicate header appears on the ICA Control > Channel Policies page While editing a new Channel Policy on the ICA Control > Channel Policies page, clicking on the Show details icon caused a new header and footer to appear. This has been corrected.	PAM-10575
The Edit option is displayed on the Search Subchapter page to users with only read rights On the Reporting > Search Subchapters page, the Edit and Create New Subchapter options were visible even if the user had only Read privileges to the page. This has been corrected.	PAM-10429
SDP cannot replay VNC sessions with TightSecurity SDP failed to replay audit trails that contained VNC over WebSocket sessions that had TightSecurity enabled. This has been corrected, now SDP can replay these sessions.	PAM-10279
Clicking values with special characters on the Search page are not escaped Clicking on values on the Search page added the value to the search query, but special characters were not escaped, resulting in incorrect search queries if the selected value contained Lucene-specific characters. This has been corrected.	PAM-10234
Misspelled OK buttons on the web interface Some OK buttons were spelled as 'Ok' on the web interface. These have been corrected.	PAM-10155
Inaccurate warning when upgrading external indexers When upgrading an external indexer, an inaccurate warning was displayed about removing the directory that contained the configuration files of the old version of the indexer. This has been corrected.	PAM-9707
Content search field does not handle the '<' character Typing the '<' character followed by other characters in the screen content search field caused the query to disappear. This has been corrected, such queries are now handled properly.	PAM-9264
OpenSSL encryption failure when changing the password of a permanent keystore In some rare cases, when changing the password of a permanent keystore on the web interface, encrypting the keys failed with the following error message: 'Fatal error: escapeshellarg(): Input string contains NULL bytes in /opt/scb/lib/OpenSSL.php on line 62'	PAM-8345

Resolved Issue	Issue ID
This has been corrected.	
If completing the Welcome Wizard using the REST API fails, the appliance becomes unreachable	PAM-7760
If completing the Welcome Wizard using the REST API failed, an internal error made the product unreachable: the IP address became 192.168.1.1 and the console access of the root user was disabled. From now on, the console access of the root user remains active, so it can be used to fix such situations.	
The 'Timestamping policy' field is displayed for Local policies	PAM-426
On the <Protocol> > Global Options > Audit page, the 'Timestamping policy' field was displayed even when the timestamping policy was set to 'Local'. This has been corrected, now the field appears only if 'Remote' timestamping is selected.	

System requirements

Before installing SPS 6.5, 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.

- [Installation Guide](#)
- [Deployment from Azure Marketplace](#)
- [Deployment on Amazon Web Services](#)
- [Evaluation Guide](#)

Supported web browsers and operating systems

⚠ CAUTION:

Since the official [support of Internet Explorer 9 and 10 ended](#) in January, 2016, they are not supported in One Identity Safeguard for Privileged Sessions (SPS) version 4 F3 and later.

⚠ CAUTION:

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](#).

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 current version of Mozilla Firefox and Google Chrome, Microsoft Edge, and Microsoft Internet Explorer 11 or newer. The browser must support TLS-encrypted HTTPS connections, JavaScript, and cookies. Make sure that both JavaScript and cookies are enabled.

Supported operating systems

Windows 2008 Server, Windows 7, Windows 2012 Server, Windows 2012 R2 Server, Windows 8, Windows 8.1, Windows 10, Windows 2016, and Linux.

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.

Safeguard Desktop Player system requirements

The Safeguard Desktop Player application supports the following platforms:

- **Microsoft Windows:**

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

- **Linux:**

RHEL 6, CentOS 6, or newer. The Safeguard Desktop Player application will probably run on other distributions as well that have at least libc6 version 2.12 installed.

- **Mac:**

macOS High Sierra 10.13, or newer.

Installing the Safeguard Desktop Player application requires about 120MB 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

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

The following sections provide detailed information of SPS appliances.

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 6.5

For step-by-step instructions on upgrading to SPS 6.5, 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.

About feature releases

This is a feature release, which means that it will be supported for 6 months after the release date or 2 months after the release of a succeeding feature release (whichever date is later). It also means that if you are running a previous feature release (such as versions 6.1), you have 2 months to upgrade to version 6.5 if you want to keep running on a supported release.

For a full description of long-term-supported and feature releases, open the [SPS product page on the Support Portal](#) and navigate to **Self Service Tools > Product Support > Product Life Cycle & Policies > Product Support Policies > Software Product Support Lifecycle Policy**.

If you have a physical appliance based on MBX hardware

One Identity recommends you to upgrade to SPS 6.5, 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 SPS6.5 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 6.5 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
- 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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Version 2.1, February 1999

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Section 5

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