

# Safeguard for Privileged Passwords 7.1

## Release Notes

**06 December 2022, 10:09**

These release notes provide information about the Safeguard for Privileged Passwords release. For the most recent documents and product information, see [Online product documentation](#).

If you are updating a Safeguard for Privileged Passwords version prior to this release, read the release notes for the version found at: [One Identity Safeguard for Privileged Passwords Technical Documentation](#).

## Release options

Safeguard for Privileged Passwords includes two release versions:

- Long Term Support (LTS) maintenance release, version 7.0.1 LTS
- Feature release, version 7.1

The versions align with Safeguard for Privileged Sessions. For more information, see [Long Term Support \(LTS\) and Feature Releases](#) on page 18.

## About this release

Safeguard for Privileged Passwords Version 7.1 is a major feature release with new features, resolved issues, and known issues.

# About the Safeguard product line

The Safeguard for Privileged Passwords 3000 and 2000 Appliances are built specifically for use only with the Safeguard for Privileged Passwords 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 time frame to value.

Safeguard for Privileged Passwords virtual appliances and cloud applications are also available. 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. See [One Identity's Product Support Policies](#) for more information on environment virtualization.

## 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:

- **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 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

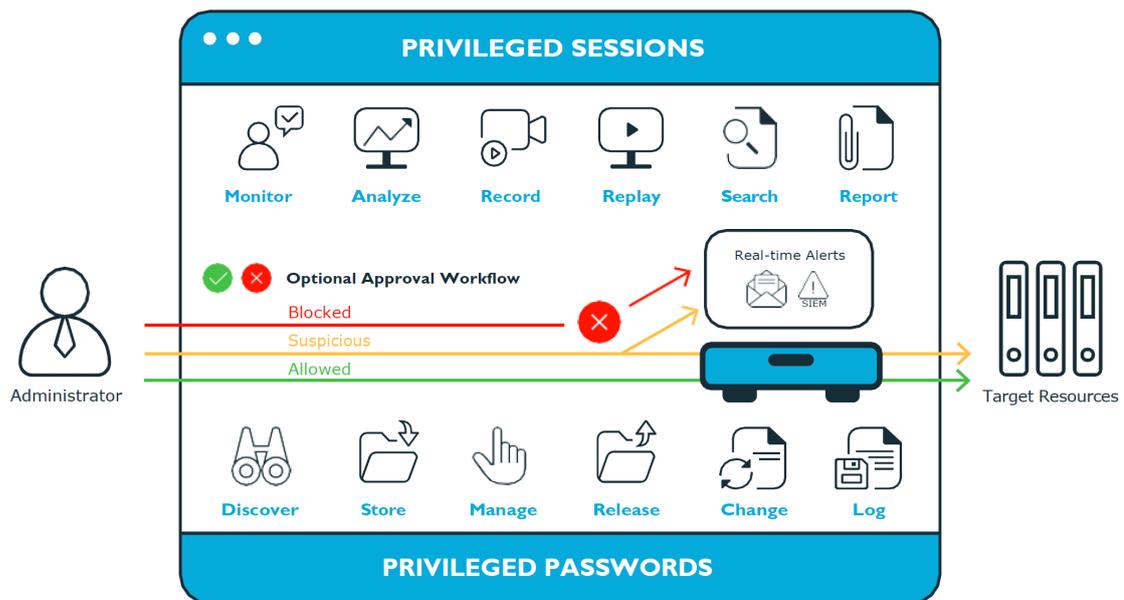
investigations.

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

**NOTE:** Configuration options and details related to Safeguard for Privileged Sessions will only be visible to customers that have purchased and joined the product to Safeguard for Privileged Passwords.

- **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.

**Figure 1: Privileged Sessions and Privileged Passwords**



# New features

## Customizable branding options for the login page and application header (313837)

Appliance Administrators can now customize the branding used on the login page and application header for their users. This allows companies to customize the end user experience to better match their own company aesthetics.

## Managing the enable password for Cisco IOS (279461)

In addition to managing user accounts, Safeguard can also manage the password for the Cisco **enable** command on Cisco IOS. The enable account appears as a normal user account in Safeguard, except that it is marked as a privileged account. This means that it cannot be used as a service account, and you cannot generate or install an SSH key for it.

## New Connect for Safeguard Assets service available in Starling (272609)

Available after Safeguard for Privileged Passwords has been joined to Starling, Connect for Safeguard Assets is designed to extend the capabilities of Safeguard for Privileged Passwords to allow for disconnected assets to be discovered and managed by Safeguard for Privileged Passwords. For more information, see the *Connect for Safeguard Assets User Guide*.

## Wildcards now allowed in searches (306749)

Search fields throughout Safeguard for Privileged Passwords now support the use of wildcards.

**NOTE:** In addition to the web client search improvements, new query operators (starts with and ends with) have also been added to the API.

## Support for managing Safeguard for Privileged Sessions credentials (302518)

Safeguard for Privileged Passwords supports managing Safeguard for Privileged Sessions credentials in order to provide additional security for Safeguard for Privileged Sessions accounts.

## Application to application support for web application firewall (314624)

Applications behind a web application firewall can now connect to Safeguard for Privileged Passwords via the TLS termination reverse proxy.

## Safeguard for Privileged Passwords now hides Safeguard for Privileged Sessions related configuration options until joined (318250)

Configuration options and details related to Safeguard for Privileged Sessions will only be visible to customers that have purchased and joined the product to Safeguard for Privileged Passwords. Previously these Safeguard for Privileged Sessions options were visible but unusable within Safeguard for Privileged Passwords.

## Discovered Services tab added to Accounts view (321584)

Applicable only to Windows and Active Directory accounts, a **Discovered Services** tab has been added when viewing Accounts which displays information on the services dependent to a selected account.

## Enhancement to RDP application auto-login feature (314627)

An enhancement has been made to the RDP application auto-login feature added in Safeguard for Privileged Passwords 7.0. When creating a new access request policy, a new **Application program** option is available for Windows Server and Windows Desktop. This option allows you to enter an application program with command line.

# Enhancements

The following is a list of enhancements implemented in Safeguard for Privileged Passwords 7.1.

**Table 1: General enhancements**

Enhancement	Issue ID
LDAPS authentication support for Active Directory.	298560

Enhancement	Issue ID
Windows Performance Monitor logs that include 30 days history regarding the appliance's CPU, memory, and disk usage have now been added to Support Bundles.	191617
Support for users with Active Directory's Fine-Grained Password Policy.	314037
A few settings have been moved from the <b>Local Login Control</b> page to the <b>Security Policy Management &gt; Settings</b> page and to the new <b>Application Management &gt; Settings</b> page. In addition, a new <b>Show Access Request Conflict User Name</b> setting is now available on the <b>Security Policy Management &gt; Settings</b> .	307281
For AD group names, increased the character limit to 64.	280114
When making an Access Request and the password is in use it now shows username of user rather than ID.	307401
A new <b>Hide Alter User command from verbose log_statement logging</b> option is enabled by default for new PostgreSQL assets with log_statement configured starting with SPP 7.1, but customers upgrading to 7.1 that want to enable the option will need to reconfigure any existing PostgreSQL assets to have a service account with superuser permissions and enable the option.	313793
In Access Request Policy, when using the RDP Application session type the Application Display Name field is now limited to 255 characters.	322845
No longer limiting ports for SAP Systems.	324400
Display which SPS node is being used in Access Request Activity.	314223
Increased Password Policy name to up to 255 characters.	322460

## Resolved issues

Issues addressed by this release follow.

**Table 2: General resolved issues**

Resolved issue	Issue ID
Now support up to 64 characters in Active Directory group names.	280114
Windows SSH platform no longer incorrectly reporting a windows service running as a local account as an AD account.	285417
Fixed an issue where selecting <b>Available for use across all partitions (Global Access)</b> was accidentally allowing the account to be visible to more	298559

<b>Resolved issue</b>	<b>Issue ID</b>
users than intended.	
Improved the caching behavior when registering Safeguard against Starling Cloud Assistant.	306571
Successful dependent service restarts no longer being reported as Dependent Asset Update Failed in logs.	309895
Fixed an issue where backup archiving stopped working on a cluster.	310416
Account names with trailing spaces no longer causing Check tasks on assets with local accounts to fail.	310504
Web UI now allowing password management options on AssetAccount where platform is Other.	311704
LDAP Filter condition for asset discovery has been fixed.	311712
Asset platform display name now correctly updated when changing from Windows Desktop (WinRM) to Windows Server (WinRM).	312400
Fixed an issue where UpdateDependentAsset was repeatedly attempting to restart Parent services.	313009
Fixed an issue where tasks were failing without an explanation.	313801
Fixed an issue causing change password to fail for Sybase.	314123
<b>Automatically generate and deploy a new SSH key</b> now working correctly on archive servers.	314239
For Cisco NX-OS platforms, an entered port number is no longer being overridden by the default port.	314246
Fixed an issue where an Activity Report with Domain Account filter only showed Object Change while local account filter showed Access Request Activity.	314550
Fixed an issue causing local users to disappear from user groups when the directory provider domain was hidden.	314579
Fixed an issue where after patching a cluster an error occurred preventing tasks from running.	314716
Fixed a quarantine issue.	315174
Fixed an issue where backups stopped being archived after upgrading from 6.10 to 6.13.1.	315245
Fixed an issue with backups becoming stuck during an upgrade.	315254
Fixed an issue causing WinRM assets to show as Unix discovery jobs.	315365

<b>Resolved issue</b>	<b>Issue ID</b>
Fixed an OutOfMemory exception issue when performing some platform tasks.	315370
Updated directory sync to wait until a task expires before attempting to run directory sync again.	316512
No longer continuing to send some email notifications after a user has opted out of those notifications.	317583
For password requests, lowercase characters in passwords now displayed in a different color than uppercase characters.	317698
Fixed a quarantine issue.	320149
Now displays an alert in SPP when trying to add a new registered connector without first configuring the connector in Starling.	321313
Check and change now working for SonicOS 7.	321662
Access Request Review screen in web client no longer missing option to play a session or view it in the SPS portal.	321697
Fixed an issue causing backup archive jobs to fail.	322113
Fixed a .log files cleanup issue.	322647
Real Time reports now responding when a replica is not available instead of continually loading.	324401
Now sending an alert when a replica disconnects from cluster.	324411
Documentation has been corrected to show default password when deploying to AWS is now <instance id>.	325545
Fixed an issue causing slow search times when searching for specific assets.	332081
Fixed an issue causing Sybase dll sybdrvodb64.dll to not run.	332096
WinRM commands noted in the documentation fixed to use quotation marks instead of apostrophes.	367078
Fixed an issue with the search functionality when adding an asset to an asset group.	367614
Fixed an issue where a port change for an asset would only apply after the window was closed.	367738
Fixed an issue with registering Cloud Assistance when joined to Starling EU.	370263
The managed network defined in the asset discovery rule now correctly being applied to the asset.	387566
Corrected the minimum upgrade version in the documentation.	392012

# Known issues

The following is a list of issues known to exist at the time of release.

## Known issue

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Issues may occur when launching telnet sessions after upgrading a Safeguard for Privileged Sessions appliance. If you are experiencing issues, ensure you have downloaded and installed the latest [telnet plugin](#) before contacting support. Additional information on configuring and supporting tenet sessions is also available on the [telnet plugin site](#).

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If session playback is failing for fully indexed sessions, the desktop player may need to be upgraded to 1.9.4 or greater.

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SPS initiated sessions failing when using netbios name.

Workaround: Use the domain name.

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Searching for discovered accounts by AssetName from **Discovery > Discovered Accounts** is not working.

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For disconnected assets, the check profile option **Reset Password on Mismatch** is not working.

Workaround: Although not a direct replacement for this option, scheduling frequent password changes will help limit the time a mismatched password remains out of sync.

# System requirements and versions

Safeguard for Privileged Passwords allows you to manage access requests, approvals, and reviews for your managed accounts and systems.

- The web client consists of an end-user view and administrator view. The fully featured client exposes all of the functionality of Safeguard based on the role of the authenticated user.
- The web management console displays whenever you connect to the virtual appliance and is used for first time configuration. 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. See [One Identity's Product Support Policies](#) for more information on environment virtualization.

Ensure that your system meets the minimum hardware and software requirements for these clients.

If a Safeguard Sessions Appliance is linked to Safeguard for Privileged Passwords, session recording is handled via Safeguard for Privileged Session. The link is initiated from Safeguard for Privileged Sessions. For details about the link steps and issue resolution, see

the *One Identity Safeguard for Privileged Sessions Administration Guide*.

## Bandwidth

It is recommended that connection, including overhead, is faster than 10 megabits per second inter-site bandwidth with a one-way latency of less than 500 milliseconds. If you are using traffic shaping, you must allow sufficient bandwidth and priority to port 655 UDP in the shaping profile. These numbers are offered as a guideline only in that other factors could require additional network tuning. These factors include but are not limited to: jitter, packet loss, response time, usage, and network saturation. If there are any further questions, please check with your Network Administration team.

## Web client system requirements

**Table 3: Web requirements**

Component	Requirements
Web browsers	Desktop browsers: <ul style="list-style-type: none"><li>• Apple Safari 13.1 for desktop (or later)</li><li>• Google Chrome 80 (or later)</li><li>• Microsoft Edge 80 (or later)</li><li>• Mozilla Firefox 69 (or later)</li></ul> Mobile device browsers: <ul style="list-style-type: none"><li>• Apple iOS 13 (or later)</li><li>• Google Chrome on Android version 80 (or later)</li></ul>

## Web management console system requirements

**Table 4: Web kiosk requirements**

Component	Requirements
Web management console	Desktop browsers: <ul style="list-style-type: none"><li>• Apple Safari 13.1 for desktop (or later)</li><li>• Google Chrome 80 (or later)</li><li>• Microsoft Edge 80 (or later)</li><li>• Mozilla Firefox 69 (or later)</li></ul>

Platforms and versions follow.

- You must license the VM with a Microsoft Windows license. We recommend using either the MAK or KMS method. Specific questions about licensing should be directed to your Sales Representative.
- Supported hypervisors:
  - Microsoft Hyper-V (VHDX) version 8 or higher
  - VMware vSphere with vSphere Hypervisor (ESXi) versions 6.5 or higher
  - VMware Workstation version 13 or higher
- Minimum resources: 4 CPUs, 10GB RAM, and a 500GB disk. The virtual appliances default deploy does not provide adequate resources. Ensure these minimum resources are met.

## Supported platforms

Safeguard for Privileged Passwords supports a variety of platforms, including custom platforms.

### Safeguard for Privileged Passwords tested platforms

The following table lists the platforms and versions that have been tested for Safeguard for Privileged Passwords (SPP). Additional assets may be added to Safeguard for Privileged Passwords. If you do not see a particular platform listed when adding an asset, use the **Other**, **Other Managed**, **Other Directory**, or **Linux** selection on the **Management** tab of the **Asset** dialog.

### SPP linked to SPS: Sessions platforms

**CAUTION:** When linking your One Identity Safeguard for Privileged Sessions (SPS) deployment to your One Identity Safeguard for Privileged Passwords (SPP) deployment, ensure that the SPS and SPP versions match exactly, and keep the versions synchronized during an upgrade. For example, you can only link SPS version 6.6 to SPP version 6.6, and if you upgrade SPS to version 6.7, you must also upgrade SPP to 6.7.

Make sure that you do not mix Long Term Supported (LTS) and feature releases. For example, do not link an SPS version 6.0.1 to an SPP version 6.1.

When Safeguard for Privileged Passwords (SPP) is linked with a Safeguard for Privileged Sessions (SPS) appliance, platforms are supported that use one of these protocols:

- SPP 2.8 or lower: RDP, SSH
- SPP 2.9 or higher: RDP, SSH, or Telnet

Some platforms may support more than one protocol. For example, a Linux (or Linux variation) platform supports both SSH and Telnet protocols.

**Table 5: Supported platforms: Assets that can be managed**

<b>Platform Name</b>	<b>Tested Versions</b>	<b>Supports SPP</b>	<b>Supports SPS Access</b>
ACF2 - Mainframe	ACF2 - Mainframe LDAP r14 zSeries ACF2 - Mainframe LDAP r15 zSeries	True	True
ACF2 - Mainframe LDAP	ACF2 - Mainframe LDAP r14 zSeries ACF2 - Mainframe LDAP r15 zSeries	True	False
Active Directory	Active Directory	True	False
AIX	AIX 7.1 AIX 7.2 AIX 7.3	True	True
Amazon Linux	Amazon Linux 2 Amazon Linux Other	True	True
Amazon Web Services	Amazon Web Services 1	True	False
CentOS Linux	CentOS Linux 7 CentOS Linux 8	True	True
Check Point GAIa (SSH)	Check Point GAIa (SSH) R76 Check Point GAIa (SSH) R77 Check Point GAIa (SSH) R80.30	True	True
Cisco ASA	Cisco ASA 7.X Cisco ASA 8.X Cisco ASA 9.X	True	True
Cisco IOS (510)	Cisco IOS 12.X Cisco IOS 15.X Cisco IOS 16.X	True	True
Cisco ISE	Cisco ISE 2.7 Cisco ISE 3	True	False
Cisco ISE CLI	Cisco ISE CLI 2.7 Cisco ISE CLI 3	True	True
Cisco NX-OS	Cisco NX-OS 9.3(7) Cisco NX-OS 9.3(7a)	True	True
Debian GNU/Linux	Debian GNU/Linux 9	True	True

Platform Name	Tested Versions	Supports SPP	Supports SPS Access
	Debian GNU/Linux 10 Debian GNU/Linux 11		
Dell iDRAC	Dell iDRAC 7 Dell iDRAC 8 Dell iDRAC 9	True	True
eDirectory LDAP	eDirectory LDAP 9.0	True	False
ESXi	ESXi 6.5 ESXi 6.7 ESXi 7.0	True	False
F5 Big-IP	F5 Big-IP 12.1.2 F5 Big-IP 13.0 F5 Big-IP 14.0 F5 Big-IP 15.0	True	True
Fedora	Fedora 33 Fedora 34 Fedora 35	True	True
Fortinet FortiOS	Fortinet FortiOS 5.2 Fortinet FortiOS 5.6 Fortinet FortiOS 6.0 Fortinet FortiOS 6.2 Fortinet FortiOS 7.0	True	True
FreeBSD	FreeBSD 12 FreeBSD 13	True	True
HP iLO	HP iLO 2 HP iLO 3 HP iLO 4 HP iLO 5	True	True
HP iLO MP	HP iLO MP 2 HP iLO MP 3	True	True
HP-UX	HP-UX 11iv3 (B.11.31)	True	True

<b>Platform Name</b>	<b>Tested Versions</b>	<b>Supports SPP</b>	<b>Supports SPS Access</b>
IBM i	IBM i 7.3 IBM i 7.4	True	True
Junos - Juniper Networks	Junos - Juniper Networks 12 Junos - Juniper Networks 13 Junos - Juniper Networks 14 Junos - Juniper Networks 15 Junos - Juniper Networks 16 Junos - Juniper Networks 17 Junos - Juniper Networks 18 Junos - Juniper Networks 19	True	True
LDAP	OpenLDAP 2.4	True	False
Linux		True	True
macOS	macOS 10.15 macOS 11 macOS 12	True	True
MongoDB	MongoDB 3.0 MongoDB 3.2 MongoDB 3.4 MongoDB 3.6 MongoDB 4.0 MongoDB 4.2 MongoDB 4.4 MongoDB 5.0	True	False
MySQL	MySQL 5.7 MySQL 8.0	True	False
Oracle	Oracle 12c Release 2 Oracle 19c Oracle 21c	True	False
Oracle Linux (OL)	Oracle Linux (OL) 7 Oracle Linux (OL) 8	True	True

<b>Platform Name</b>	<b>Tested Versions</b>	<b>Supports SPP</b>	<b>Supports SPS Access</b>
Other		False	False
Other Directory		True	False
Other Managed		True	False
PAN-OS	PAN-OS 8.1 PAN-OS 9.0 PAN-OS 9.1 PAN-OS 10.0 PAN-OS 10.1 PAN-OS 10.2	True	True
PostgreSQL	PostgreSQL 10 PostgreSQL 11 PostgreSQL 12 PostgreSQL 13 PostgreSQL 14	True	False
RACF - Mainframe	RACF - Mainframe z/OS V2.1 Security Server zSeries RACF - Mainframe z/OS V2.2 Security Server zSeries RACF - Mainframe z/OS V2.3 Security Server zSeries	True	True
RACF - RACF - Mainframe LDAP	RACF - Mainframe LDAP z/OS V2.1 Security Server zSeries RACF - RACF - Mainframe LDAP z/OS V2.2 Security Server zSeries RACF - RACF - Mainframe LDAP z/OS V2.3 Security Server zSeries	True	False
Red Hat Enterprise Linux (RHEL)	Red Hat Enterprise Linux (RHEL) 7 Red Hat Enterprise Linux (RHEL) 8	True	True
Red Hat Directory Server	Red Hat Directory Server 11	True	False
SAP HANA	SAP HANA SAP HANA 2	True	False
SAP Netweaver	SAP Netweaver Application Server 7.3	True	False

<b>Platform Name</b>	<b>Tested Versions</b>	<b>Supports SPP</b>	<b>Supports SPS Access</b>
Application Server	SAP Netweaver Application Server 7.4 SAP Netweaver Application Server 7.5		
Safeguard for Privileged Sessions	Safeguard for Privileged Sessions 7.0	True	True
Solaris	Solaris 10 Solaris 11.3 Solaris 11.4	True	True
SonicOS	SonicOS 6.5 SonicOS 7 SonicOSX 7	True	False
SonicWALL SMA or CMS	SonicWALL SMA or CMS 11.3.0	True	False
SQL Server	SQL Server 2012 SQL Server 2014 SQL Server 2016 SQL Server 2017 SQL Server 2019	True	False
SUSE Linux Enterprise Server (SLES)	SUSE Linux Enterprise Server (SLES) 12 SUSE Linux Enterprise Server (SLES) 15	True	True
Sybase (Adaptive Server Enterprise)	Sybase (Adaptive Server Enterprise) 15.7 Sybase (Adaptive Server Enterprise) 16 Sybase (Adaptive Server Enterprise) 17	True	False
Top Secret - Mainframe	Top Secret - Mainframe r14 zSeries Top Secret - Mainframe r15 zSeries Top Secret - Mainframe r16 zSeries	True	False
Top Secret - Mainframe LDAP	Top Secret - Mainframe LDAP r14 Top Secret - Mainframe LDAP r15 Top Secret - Mainframe LDAP r16	True	True

Platform Name	Tested Versions	Supports SPP	Supports SPS Access
Ubuntu	Ubuntu 16.04 Ubuntu 18.04 Ubuntu 20.04 Ubuntu 22.04 LTS	True	True
Windows Desktop	Windows (SSH) 8.1	True	True
Windows Desktop (SSH)	Windows (SSH) 10 Windows (SSH) 11		
Windows Desktop (WinRM)	Windows (SSH) Server 2012		
Windows Server	Windows (SSH) Server 2012 R2		
Windows Server (SSH)	Windows (SSH) Server 2016 Windows (SSH) Server 2019		
Windows Server (WinRM)	Windows (SSH) Server 2022 Windows 8.1 Windows 10 Windows 11 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019 Windows Server 2022		

**Table 6: Supported platforms: Directories that can be searched**

Platform Name	Platform Version
Microsoft Active Directory	Windows 2008+ DFL/FFL
LDAP	2.4

For all supported platforms, it is assumed that you are applying the latest updates. For unpatched versions of supported platforms, Support will investigate and assist on a case-by-case basis but it may be necessary for you to upgrade the platform or use SPP's custom platform feature.

**IMPORTANT:** For the current list of platforms supported by Connect for Safeguard Assets, see the *Connect for Safeguard Assets User Guide*.

### Custom platforms

The following example platform scripts are available:

- Custom HTTP
- Linux SSH
- Telnet
- TN3270 transports are available

For more information, see *Custom Platforms and Creating a custom platform script* in the *Safeguard for Privileged Passwords Administration Guide*.

Sample custom platform scripts and command details are available at the following links available from the [Safeguard Custom Platform Home](#) wiki on GitHub:

- Command-Reference:  
<https://github.com/OneIdentity/SafeguardCustomPlatform/wiki/Command-Reference>
- Writing a custom platform script:  
<https://github.com/OneIdentity/SafeguardCustomPlatform/wiki/WritingACustomPlatformScript>
- Example platform scripts are available at this location:  
<https://github.com/OneIdentity/SafeguardCustomPlatform/tree/master/SampleScripts>

**⚠ CAUTION:** Example scripts are provided for information only. Updates, error checking, and testing are required before using them in production. Safeguard for Privileged Passwords checks to ensure the values match the type of the property that include a string, boolean, integer, or password (which is called secret in the API scripts). Safeguard for Privileged Passwords cannot check the validity or system impact of values entered for custom platforms.

## Long Term Support (LTS) and Feature Releases

Releases use the following version designations:

- Long Term Support (LTS) Releases: The first digit identifies the release and the second is a zero (for example, 6.0 LTS).
- Maintenance LTS Releases: A third digit is added followed by LTS (for example, 6.0.6 LTS).
- Feature Releases: The Feature Releases version numbers are two digits (for example, 6.6).

Customers choose between two paths for receiving releases: Long Term Support (LTS) Release or Feature Release. See the following table for details.

**Table 7: Comparison of Long Term Support (LTS) Release and Feature Release**

	<b>Long Term Support (LTS) Release</b>	<b>Feature Release</b>
<b>General Release</b>	<p><b>Scope:</b> Includes new features, resolved issues and security updates</p> <p><b>Versioning:</b> The first digit identifies the LTS and the second digit is a 0 (for example, 6.0 LTS, 7.0 LTS, and so on).</p>	<p><b>Scope:</b> Includes the latest features, resolved issues, and other updates, such as security patches for the OS</p> <p><b>Versioning:</b> The first digit identifies the LTS and the second digit is a number identifying the Feature Release (for example, 6.6, 6.7, and so on).</p>
<b>Maintenance Release</b>	<p><b>Scope:</b> Includes critical resolved issues</p> <p><b>Versioning:</b> A third digit designates the maintenance LTS Release (for example, 6.0.6 LTS).</p>	<p><b>Scope:</b> Includes highly critical resolved issues</p> <p><b>Versioning:</b> A third digit designates the maintenance Feature Release (for example, 6.6.1).</p>

Release and support details can be found at [Product Life Cycle](#).

**⚠ CAUTION: Downgrading from the latest Feature Release, even to an LTS release, voids support for SPP.**

One Identity strongly recommends always installing the latest revision of the release path you use (Long Term Support path or Feature Release path).

### **Moving between LTS and Feature Release versions**

You can move from an LTS version (for example, 6.0.7 LTS) to the same feature version (6.7) and then patch to a later feature version. After that, you can patch from the minimum version for the patch, typically N-3. If you move from an LTS version to a feature version, you will receive a warning like the following which informs you that you will only be able to apply a Feature Release until the next LTS Release:

Warning: You are patching to a Feature Release from an LTS Release. If you apply this update, you will not be able to upgrade to a non-Feature Release until the next LTS major release version is available. See the Administration Guide for details.

You cannot move from a Feature Release to LTS Release. For example, you cannot move from 6.7 to 6.0.7 LTS. You have to keep upgrading with each new Feature Release until the next LTS Release version is published. For this example, you would wait until 7.0 LTS is available.

### **Patching**

You can only patch from a major version. For example, if you have version 6.6 and want to patch to 7.7, you must patch to 7.0 LTS and then apply 7.7.

An LTS major version of Safeguard for Privileged Passwords (SPP) will only work with the same LTS major version of Safeguard for Privileged Sessions (SPS). For the best experience, it is recommended you use the latest supported version.

# Appliance specifications

The Safeguard for Privileged Passwords Appliance is built specifically for use only with the Safeguard for Privileged Passwords privileged management 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.

The following two tables list the Safeguard for Privileged Passwords 3000 Appliance and 2000 Appliance specifications and power requirements.

**Table 8: 3000 Appliance: Feature specifications**

<b>3000 Appliance</b>	<b>Feature / Specification</b>
Processor	Intel Xeon E3-1275v6 3.8 GHz
# of Processors	1
# of Cores per Processor	4 cores (8 threads)
L2/L3 Cache	8MB L3 Cache
Chipset	Intel C236 Chipset
DIMMs	Unbuffered ECC UDIMM DDR4 2400MHz
RAM	32 GB
Internal HD Controller	LSI MegaRAID SAS 9361-4i Single
Disk Hard Drive	4 x Seagate 7E2000 2TB SAS 512E
Availability	TPM 2.0, EEC Memory, Redundant PSU
I/O Slots	x16 PCIe 3.0, x8 PCIe 3.0
RAID	RAID10
NIC/LOM	4 port - dual GbE LAN with Intel i210-AT
Power Supplies	Redundant, 700W, Auto Ranging (100v~240V), ACPI compatible
Fans	1 Supermicro SNK-P0046P and 2 Micron 16GB 2666MHz 2R ECC Unb Z01B Dual Label
Chassis	1U Rack
Dimensions (HxWxD)	43 x 437.0 x 597.0 (mm) 1.7 x 17.2 x 23.5 (in)
Weight	Max: 37 lbs (16.78 Kg)

**Table 9: 2000 Appliance: Feature specifications**

<b>2000 Appliance</b>	<b>Feature / Specification</b>
Processor	Intel Xeon E3-1275v5 3.60 GHz
# of Processors	1
# of Cores per Processor	4
L2/L3 Cache	4 x 256KB L2, 8MB L3 SmartCache
Chipset	Intel C236 Chipset
DIMMs	DDR4-2400 ECC Unbuffered DIMMs
RAM	32GB
Internal HD Controller	LSI MegaRAID SAS 9391-4i 12Gbps SAS3
Disk	4 x Seagate EC2.5 1TB SAS 512e
Availability	TPM 2.0, EEC Memory, Redundant PSU
I/O Slots	x16 PCIe 3.0, x8 PCIe 3.0
RAID	RAID10
NIC/LOM	3 x Intel i210-AT GbE
Power Supplies	Redundant, 700W, Auto Ranging (100v~240V), ACPI compatible
Fans	4 x 40mm Counter-rotating, Non-hot-swappable
Chassis	1U Rack
Dimensions (HxWxD)	43 x 437.0 x 597.0 (mm) 1.7 x 17.2 x 23.5 (in)
Weight	Max: 46 lbs (20.9 Kg)
Miscellaneous	FIPS Compliant Chassis

**Table 10: 3000 Appliance and 2000 Appliance: Power requirements**

Input Voltage	100-240 Vac
Frequency	50-60Hz
Power Consumption (Watts)	170.9
BTU	583

Safeguard for Privileged Passwords is also available as a virtual appliance and from the cloud.

# Appliance LCD and controls

The front panel of the Safeguard for Privileged Passwords 3000 Appliance and 2000 Appliance contain the following controls for powering on, powering off, and scrolling through the LCD display.

- ✓ Green check mark button: Use the **Green check mark** button to start the appliance. Press the **Green check mark** button for NO more than one second to power on the appliance.
  - ⚠ **CAUTION: Once the Safeguard for Privileged Passwords Appliance is booted, DO NOT press and hold the Green check mark button. Holding this button for four or more seconds will cold reset the power of the appliance and may result in damage.**
- Red X button: Use the **Red X** button to shut down the appliance. Press and hold the **Red X** button for four seconds until the LCD displays POWER OFF.
  - ⚠ **CAUTION: Once the Safeguard for Privileged Passwords Appliance is booted, DO NOT press and hold the Red X button for more than 13 seconds. This will hard power off the appliance and may result in damage.**
- Down, up, left, and right arrow buttons: When the appliance is running, the LCD home screen displays: Safeguard for Privileged Passwords <version number>. Use the arrow buttons to scroll through the following details:
  - Serial: <appliance serial number>
  - X0: <appliance IP address>
  - MGMT: <management IP address>
  - MGMT MAC: <media access control address>
  - IPMI: <IP address for IPMI>

**Table 11: Appliance LCD and controls**

Control	Description
Green check mark button	Use the <b>Green check mark</b> button to start the appliance. Press the <b>Green check mark</b> button for NO MORE THAN one second to power on the appliance. <ul style="list-style-type: none"> <li> <span>⚠</span> <b>CAUTION: Once the Safeguard for Privileged Passwords Appliance is booted, DO NOT press and hold the Green check mark button. Holding this button for four or more seconds will cold reset the power of the appliance and may result in damage.</b> </li> </ul>
Red X button	Use the <b>Red X</b> button to shut down the appliance. Press and hold the <b>Red X</b> button for four seconds until the LCD displays POWER OFF.

Control	Description
Down, up, left, and right arrow buttons	<p data-bbox="464 271 1358 409"><b>⚠ CAUTION:</b> Once the Safeguard for Privileged Passwords Appliance is booted, <b>DO NOT</b> press and hold the Red X button for more than 13 seconds. This will hard power off the appliance and may result in damage.</p> <p data-bbox="448 443 1273 472">When the appliance is running, the LCD home screen displays:</p> <ul data-bbox="496 495 1254 524" style="list-style-type: none"> <li data-bbox="496 495 1254 524">• Safeguard for Privileged Passwords &lt;version number&gt;</li> </ul> <p data-bbox="448 546 1249 575">Use the arrow buttons to scroll through the following details:</p> <ul data-bbox="496 598 1126 824" style="list-style-type: none"> <li data-bbox="496 598 983 627">• Serial: &lt;appliance serial number&gt;</li> <li data-bbox="496 649 898 678">• X0: &lt;appliance IP address&gt;</li> <li data-bbox="496 701 994 730">• MGMT: &lt;management IP address&gt;</li> <li data-bbox="496 752 1126 781">• MGMT MAC: &lt;media access control address&gt;</li> <li data-bbox="496 804 903 833">• IPMI: &lt;IP address for IPMI&gt;</li> </ul>

## Product licensing

**⚠ CAUTION:** All customers upgrading to Safeguard for Privileged Passwords 7.0 require a new license. For more information, contact Support.

### Hardware appliance

The Safeguard for Privileged Passwords 3000 Appliance and 2000 Appliance ship with the Privileged Passwords module which requires a valid license to enable functionality.

You must install a valid license. Once the module is installed, Safeguard for Privileged Passwords shows a license state of **Licensed** and is operational. If the module license is not installed, you have limited functionality. That is, even though you will be able to configure access requests, if a Privileged Passwords module license is not installed, you will not be able to request a password release.

### Virtual appliance Microsoft Windows licensing

You must license the virtual appliance with a Microsoft Windows license. We recommend using either the MAK or KMS method. Specific questions about licensing should be directed to your Sales Representative. The virtual appliance will not function unless the operating system is properly licensed.

## Licensing setup and update

### ***To enter licensing information when you first log in***

The first time you log in as the Appliance Administrator, you are prompted to add a license. The **Success** dialog displays when the license is added.

On the virtual appliance, the license is added as part of Initial Setup.

**IMPORTANT:** After successfully adding a license, the Software Transaction Agreement will be displayed and must be read and accepted in order to use Safeguard for Privileged Passwords.

### ***To configure reminders for license expiration***

To avoid disruptions in the use of Safeguard for Privileged Passwords, the Appliance Administrator must configure the SMTP server, and define email templates for the License Expired and the License Expiring Soon event types. This ensures you will be notified of an approaching expiration date.

Users are instructed to contact their Appliance Administrator if they get an "appliance is unlicensed" notification.

As an Appliance Administrator, if you receive a "license expiring" notification, apply a new license.

### ***To update the licensing file***

Licensing update is only available using a virtual machine, not via the hardware.

### ***To perform licensing activities***

Go to the licensing page:

1. Navigate to **Appliance Management > Appliance > Licensing**.
  - To upload a new license file, click **+Upload new license file** and browse to select the current license file. The Software Transaction Agreement will also be displayed during this process and must be read and accepted in order to complete the licensing process.
  - To remove the license file, select the license and click  **Remove selected license**.

# Update and installation instructions

**CAUTION:** For customers upgrading to 7.0 from a previous Safeguard for Privileged Passwords release, be aware the following changes are required prior to upgrading:

- **New license** (<https://support.oneidentity.com/contact-us/licensing>). Once the new license is installed, Appliance Administrators will need to read and accept the Software Transaction Agreement before Safeguard for Privileged Passwords will be fully functional.
- **Must apply the OS patch release prior to upgrading to 7.0.** For more information, see [One Identity Safeguard for Privileged Passwords required Operating System Patch Pre-requisite for SPP 7.0 LTS \(338064\)](#).
- **Approval Anywhere has been deprecated.** Any Safeguard for Privileged Passwords customers also currently using Starling Two-Factor Authentication as their authentication provider should wait to upgrade until they have removed all Starling Two-Factor Authentication related user information.

The Safeguard for Privileged Passwords 3000 and 2000 Appliances are built specifically for use only with the Safeguard for Privileged Passwords privileged management software, which is pre-installed and ready for immediate use on the hardened appliances.

Safeguard for Privileged Passwords virtual appliances and cloud applications are also available.

## To set up a new deployment: 3000 Appliance, 2000 Appliance, Virtual Machine, or Cloud

If this is a new physical appliance, virtual machine, or cloud deployment, see the *Safeguard for Privileged Passwords Appliance Setup Guide*. The guide is also included in the package with a physical appliance.

## To update an existing physical appliance or virtual appliance with this patch

It is the responsibility of the Appliance Administrator to upgrade Safeguard for Privileged Passwords by installing an update file (patch). Consider the following:

- **Minimum patch version:** 7.0.0.18401. If you are running an earlier version of the Safeguard for Privileged Passwords Appliance, you must upgrade to this version before applying the 7.1 patch.
- **Clustered environment:** See the Patching cluster members section in the *Safeguard for Privileged Passwords Administration Guide* for instructions on how to deploy a patch so all appliances in the cluster are on the same version.

### **Prepare to install a patch**

1. Backup your appliance before you install a patch. Once you install a patch, you cannot uninstall it. See the *Safeguard for Privileged Passwords Administration Guide*, Backup and restore topic.
2. Download the latest physical appliance patch or virtual appliance patch from the One Identity Support Portal:  
<https://support.oneidentity.com/one-identity-safeguard-for-privileged-passwords/download-new-releases>

### **To install the hardware patch**

1. As an Appliance Administrator, log in to the Safeguard for Privileged Passwords client.
2. Select **Appliance Management > Appliance > Patch Updates**.  
The current appliance and client versions are displayed.
3. Click **Upload a File** and browse to select the update file you downloaded from the One Identity support web site.  
**NOTE:** When you select a file, Safeguard for Privileged Passwords uploads it to the server, but does not install it.
4. Once the file has successfully uploaded, click **Install Now**.

### **To install the virtual machine patch**

1. Make adequate resources available. The virtual appliances default deploy does not provide adequate resources. The minimum resources required are: 4 CPUs, 10GB RAM, and a 500GB disk. Without adequate disk space, the patch will fail and you will need to expand disk space then re-upload the patch.
2. Go to the web management console and click  **Setup** and follow the wizard.

## **Verify successful installation**

You can verify that the correct version has been successfully installed from the Safeguard for Privileged Passwords desktop client or the LCD on the Safeguard for Privileged Passwords Appliance.

### **To verify the uploaded patch was installed**

1. Log in to the Safeguard for Privileged Passwords client as an Operations Administrator or an Appliance Administrator.
2. Select **Appliance Management > Appliance > Appliance Information**.
3. Verify the correct appliance version is displayed in the appliance properties pane.

In addition, when the appliance is running, the LCD home screen on the front panel of the appliance displays **Safeguard for Privileged Passwords <version number>**. Therefore, you can verify the correct appliance version is running from there, as well.

## More resources

Additional information is available from the following:

- Online product documentation: <https://support.oneidentity.com/one-identity-safeguard-for-privileged-passwords/technical-documents>
- One Identity Communities: <https://www.quest.com/community/one-identity/>
- Knowledge Base: <https://support.oneidentity.com/one-identity-safeguard-for-privileged-passwords/kb>

## 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. It supports simultaneous operation with multilingual data. 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).

The release is localized to the following languages: Arabic (Saudi Arabia), Chinese (Traditional), Dutch, French, German, Italian, Japanese, Korean, Russian, Spanish.

## 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 components

This product contains third-party components (listed below). Copies of component licenses may be found at <https://www.oneidentity.com/legal/license-agreements.aspx>. Source code for components marked with an asterisk (\*) is available at <http://opensource.quest.com>.

**Table 12: List of third-party components**

<b>Component</b>	<b>License or acknowledgment</b>
@angular/animations 7.2.16	Copyright (c) 2010-2019 Google LLC
@angular/animations 8.2.14	License Text - MIT N/A
@angular/cdk 7.3.7	Copyright (c) 2019 Google LLC.
@angular/cdk 8.2.3	License Text - MIT N/A
@angular/common 7.2.16	Copyright (c) 2015 Cameron Spear
@angular/common 8.2.14	License Text - MIT N/A
@angular/compiler 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/compiler 8.2.14	License Text - MIT N/A
@angular/core 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/core 8.2.14	License Text - MIT N/A
@angular/forms 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/forms 8.2.14	License Text - MIT N/A
@angular/http 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
	License Text - MIT N/A
@angular/material 7.3.7	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/material 8.2.3	License Text - MIT N/A
@angular/material-moment-adapter 7.3.7	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/material-moment-adapter 8.2.3	License Text - MIT N/A
@angular/platform-browser 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/platform-browser 8.2.14	License Text - MIT N/A
@angular/platform-browser-dynamic 7.2.16	Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a>
@angular/platform-browser-dynamic 8.2.14	License Text - MIT N/A
@angular/router 7.2.16	Copyright (c) 2010-2019 Google LLC.

Component	License or acknowledgment
@angular/router 8.2.14	<p><a href="http://angular.io/license">http://angular.io/license</a></p> <p>License Text - MIT N/A</p>
@types/humanize-duration 3.18.0	<p>Copyright (c) 2010-2019 Google LLC. <a href="http://angular.io/license">http://angular.io/license</a></p> <p>License Text - MIT N/A</p>
@types/jquery 3.3.31	<p>Copyright Notice - @types/jquery 3.3.31</p> <p>Leonard Thieu, Boris Yankov, Christian Hoffmeister, Steve Fenton, Diullei Gomes, Tass Iliopoulos, Jason Swearingen, Sean Hill, Guus Goossens, Kelly Summerlin, Basarat Ali Syed, Nicholas Wolverson, Derek Cicerone, Andrew Gaspar, Seikichi Kondo, Benjamin Jackman, Poul Sorensen, Josh Strobl, John Reilly, Dick van den Brink, Thomas Schulz, Terry Mun</p> <p>License MIT 1.0</p>
@types/node 13.13.5	<p>Copyright Notice - @types/node 13.13.5</p> <p><a href="https://github.com/DefinitelyTyped/DefinitelyTyped/tree/master/types/node">https://github.com/DefinitelyTyped/DefinitelyTyped/tree/master/types/node</a></p> <p>License MIT 1.0</p>
@types/qrcode 1.3.4	<p>Copyright Notice - @types/qrcode 1.3.4</p> <p>York Yao, Michael Nahkies, Rémi Sormain</p> <p>License MIT 1.0</p>
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billboard.js 1.12.6	Copyright (c) 2017 ~ present NAVER Corp.

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