

# Safeguard for Sudo 7.2

## Release Notes

**20 December 2021, 11:46**

These release notes provide information about the One Identity Safeguard for Sudo release.

### About this release

Safeguard for Sudo helps Unix/Linux organizations take privileged account management through Sudo to the next level: with a central policy server, centralized management of Sudo and sudoers, centralized reporting on sudoers and elevated rights activities, and event and keystone logging of activities performed through Sudo. With Safeguard for Sudo, One Identity provides a plug-in to Sudo 1.8.1 (and later) to make administering Sudo across a few, dozens, hundreds, or thousands of Unix/Linux servers easy, intuitive, and consistent. It eliminates the box-to-box management of Sudo that is the source of so much inefficiency and inconsistency. In addition, the centralized approach delivers the ability to report on the change history of the sudoers policy file.

Safeguard for Sudo 7.2 is a patch release that includes [Resolved issues](#).

**NOTE:** Beginning with version 7.0, Safeguard for Sudo supports only Linux-based systems for Safeguard policy servers.

### End of support notice

After careful consideration, One Identity has decided to cease the development of the Management Console for Unix (MCU). Therefore, the MCU will enter limited support for all versions on April 1, 2021. Support for all versions will reach end of life on Nov 1, 2021.

As One Identity retires the MCU, we are building its feature set into modern platforms starting with Software Distribution and Profiling. Customers that use the MCU to deploy Authentication Services and Safeguard for Sudo can now use our Ansible collections for those products, which can be found at [Ansible Galaxy](#).

## New features

New features in Safeguard for Sudo 7.2 :

- You can load sudo-compatible approval and audit plugins, including plugins written in Python, on the policy server. For more information, see the following chapters in the *Safeguard for Sudo Administration Guide*:
  - *Supported sudo plugins*
  - *Configuring a sudo approval plugin*
  - *Configuring a sudo audit plugin.*
- One Identity provides newer format rpm packages, which can be installed on RHEL 8 that is switched to FIPS compliant mode as well.
- You can manage policies using the Git workflow. The `pmgit` utility is a tool that can mediate version control operations between Subversion (SVN) and Git version control systems. For more information, see *Managing policies in Git* in the Administration Guide.
- You can stream event logs and keystroke (IO) logs from a client to a sudo log audit server (or compatible server) that implements the sudo logsrv protocol. This feature is disabled by default. Enable the recording service through configuring the policy server with `pmsrvconfig` or by editing `pm.settings`. For more information, see *Audit server logging* in the Administration Guide.
- New command line switch is added to the `pmsrvinfo` command. You can query from the server which client is using which sudoers policy.
- All packages shipped by One Identity are now signed. You can verify that the packages you download has been created by OneIdentity and not by a malicious intermediate. For more information, see *Verifying package signature* in the Administration Guide.

See also:

- [Resolved issues](#)

## Resolved issues

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

**Table 1: Resolved issues**

<b>Resolved Issue</b>	<b>Issue ID</b>
<p>Problem in detection of sudo binary (32/64bit) when joining the Safeguard for Sudo plugin to a policy group.</p> <p>Fixed detection of sudo binary (32/64bit) when joining the Safeguard for Sudo plugin to a policy group.</p>	272782
<p>The <code>pmlogsearch</code> command started on a primary policy server was not able to return results about iologs which has been stored on secondary policy servers.</p> <p>Fixed <code>pmlogsearch</code> to search inside iologs stored on secondary policy servers. For the fix to work, both the primary and the secondary policy server needs to be upgraded. The problem only affects the search functionality, there is no data loss, previously stored data will be searchable after applying upgrade.</p>	277299
<p>A corrupt temporary event log file could cause <code>pmlogsrvd</code> log storing to stuck, continuously reporting syslog error messages.</p> <p>Now if a temporary event log file gets corrupted anyhow, it will be moved to the <code>evcache "refused"</code> subdirectory and only one error message per file appears in the syslog.</p>	278176
<p>Commands run via sudo on AIX systems could take several extra seconds to complete, depending on the number of groups the invoking and target user are members of.</p> <p>The sudo plugin now uses a more efficient method to query the invoking and target user's group membership. To utilize the new method, both the plugin client and the policy server must be upgraded. The slowdown was caused by a change in how the sudoers parser verifies group membership. Prior to Safeguard for Sudo 7.0, group membership was only checked when a group was encountered in the sudoers file. Starting with version 7.0, all of a user's groups must be resolved before parsing the sudoers file.</p>	280620
<p>When Safeguard for Sudo is configured to send audit events to Safeguard for Privileged Sessions, commands run via sudo could time out.</p> <p>Safeguard for Sudo expected Safeguard for Privileged Sessions (SPS) to respond to an accepted command message with a log identification string. SPS does not currently support restarting interrupted audit server connections and does not send a log ID. This resulted in the audit server connection timing out while Safeguard for Sudo waited for the log ID. Safeguard for Sudo now checks for the log ID asynchronously and does not explicitly wait for it.</p>	289715

## 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 2: General known issues**

Known Issue	Issue ID
No audit trail when offline log is sent to policy server.	291148
When the pmbash tool tries to run a command, the command cannot run on the Apple MacOS M1 ARM64 architecture, because the bash and the product cannot link the libraries together.  The reason is that the Apple package is compiled with the ARM64 ABI set, but Apple uses the ARM64e ABI set. The dynamic library linker cannot link the ARM64e set with the ARM64 set. This issue is going to be fixed in the next release.	292522

## Supported platforms

The following table provides a list of supported platforms for Safeguard clients.

**NOTE:** Beginning with version 7.2, Safeguard for Sudo supports only Linux-based systems for Safeguard policy servers.

**Table 3: Linux supported platforms – server and plugin**

Platform	Version	Architecture
Amazon Linux	AMI, 2	x86_64
CentOS Linux	6, 7, 8	Current Linux architectures: s390x, PPC64, PPC64le, x86, x86_64, AARCH64
Debian	Current supported releases	x86_64, x86, AARCH64
Fedora Linux	Current supported releases	x86_64, x86, AARCH64
OpenSuSE	Current supported releases	x86_64, x86, AARCH64
Oracle Enterprise Linux (OEL)	6, 7, 8	Current Linux architectures: s390x, PPC64, PPC64le, x86, x86_64, AARCH64
Red Hat Enterprise Linux (RHEL)	6, 7, 8	Current Linux architectures: s390x, PPC64, PPC64le, x86, x86_64, AARCH64

Platform	Version	Architecture
SuSE Linux Enterprise Server (SLES)/Workstation	11 SP4, 12, 15	Current Linux architectures: s390x, PPC64, PPC64le, x86, x86_64, AARCH64
Ubuntu	Current supported releases	x86_64, x86, AARCH64

**Table 4: Unix and Mac supported platforms – plugin**

Platform	Version	Architecture
Apple MacOS	10.15 or later	x86_64, ARM64
FreeBSD	12.x, 13.x	x32, x64
HP-UX	11.31	PA, IA-64
IBM AIX	6.1 TL9, 7.1 TL3, 7.2	Power 4+
Oracle Solaris	10 8/11 (Update 10), 11.x	SPARC, x64

## System requirements

Before installing Safeguard 7.2, ensure that your system meets the following minimum hardware and software requirements.

**NOTE:** Beginning with version 7.2, Safeguard for Sudo supports only Linux-based systems for Safeguard policy servers.

**Table 5: Hardware and software requirements**

Component	Requirements
Operating systems	See <a href="#">Supported platforms</a> to review a list of platforms that support Safeguard clients.
Disk space	<p>80 MB of disk space for program binaries and manuals for each architecture.</p> <p>Considerations:</p> <ul style="list-style-type: none"> <li>At a minimum, you must have 80 MB of free disk space. The directories in which the binaries are installed must have sufficient disk space available on a local disk drive rather than a network drive. Before you install Safeguard, ensure that the partitions that will contain /opt/quest have sufficient space available.</li> </ul>

Component	Requirements
	<ul style="list-style-type: none"> <li>Sufficient space for the keystroke logs, application logs, and event logs. The size of this space depends on the number of servers, the number of commands, and the number of policies configured.</li> <li>The space can be on a network disk drive rather than a local drive.</li> <li>The server hosting Safeguard must be a separate machine dedicated to running the <code>pmmasterd</code> daemon.</li> </ul>
SSH software	<p>You must install and configure SSH client and server software on all policy server hosts.</p> <p>You must also install SSH client software on all hosts that will use the Sudo Plugin.</p> <p>You must enable access to SSH as the root user on the policy server hosts during configuration of the policy servers. Both OpenSSH 4.3 (and later) and Tectia SSH 6.4 (and later) are supported.</p>
Processor	Policy Servers: 4 cores
RAM	Policy Servers: 8GB

**Table 6: Primary policy server and host system installation requirements**

Systems Required	Minimum Requirements
Primary Policy Server	<ul style="list-style-type: none"> <li>Supported Unix or Linux operating system</li> <li>SSH (<code>ssh-keyscan</code> binary)</li> </ul>
Host System	<ul style="list-style-type: none"> <li>Supported Unix, Linux, or macOS platform</li> <li>SSH (<code>ssh-keyscan</code> binary)</li> <li>Sudo 1.8.1 (or later)</li> </ul>

## Upgrade and compatibility

Safeguard for Sudo supports a direct upgrade installation from versions 2.0 and higher. The Safeguard software in this release is provided using platform-specific installation packages. For more information on upgrading, see the *One Identity Safeguard for Sudo Administration Guide*.

One Identity recommends that:

- You upgrade your policy server (Master) systems before Sudo plugins, and that a policy server is run at the same or higher level than Sudo plugins.
- All policy server systems and Sudo plugins are upgraded to the latest version to take advantage of all new features.

The upgrade process will create symbolic links to ensure that your existing paths function correctly.

## Product licensing

Although licenses are allocated on a per-agent basis, you install licenses on Safeguard policy servers.

No special commands are required to register or license the clients with policy servers. Hosts using the Safeguard agents are automatically granted a license once a request is received on the Safeguard policy server by means of the sudo client program.

### To install a license file

1. Copy the .dlv license file to the policy server.
2. To install the license, run:

```
# /opt/quest/sbin/pmlicense -l <license_file>
```

This command displays your currently installed license and the details of the new license to be installed.

3. When it asks, "Would you like to install the new license (Y/N) [Y]?", press **Enter**, or type: **Y**
4. If there are other policy servers configured in your policy server group, it forwards the license configuration to the other servers.

See the *One Identity Safeguard for Sudo Administration Guide* for more information about the syntax and usage of the pmlicense command.

## Upgrade and installation instructions

**NOTE:** Due to a change in the communication protocol, using 7.1 or later clients and servers with 7.0 clients and servers is not supported. One Identity recommends you upgrade all of your 7.0 installations to 7.1 or later versions. Installations of release 6.x are not affected and can still be used with 7.1.

## Upgrade instructions

For information on upgrading Safeguard for Sudo, see *Upgrade Safeguard for Sudo* in *Safeguard for Sudo Administration Guide*.

## Upgrading your license

Depending on whether you are upgrading Safeguard for Sudo from a version earlier than 7.0 or from version 7.x, handling your license is different.

- **Upgrading from a version 7.x:** If you have purchased Safeguard for Sudo version 7.x without owning an earlier version, you will receive a new license. In this case, you do not have to perform any extra steps and can proceed with the upgrade process.
- **Upgrading from a version earlier than 7.0:** The product licensing changed with Safeguard for Sudo version 7.0. If you are upgrading Safeguard for Sudo from a version earlier than 7.0 to version 7.x, you must upgrade your license first.

In this case, make sure that you have received your upgraded license before starting the upgrade process.

When client machines attempt to join to the policy server using the `pmjoin` or `pmjoin_plugin` command, if you do not have the proper license, the following error message is displayed:

```
*** Checking connection to policy server host <policy-server> [FAIL]
- ERROR: policy server <policy-server> has no valid license (for QPM4U)
- ERROR: Unable to connect to any policy servers
```

To display a summary of the combined licenses configured on this host, enter the following command without any options

```
pmlicense
```

To install a license, enter the following command. For more information on license installation, see *Installing licenses in Safeguard for Sudo Administration Guide*.

```
pmlicense -l <path-to-dlv-file>
```

- If the license file is valid, the installer displays the following:

```
The selected license file (<path-to-dlv-file>) contains a valid license
```

- If the license file is not valid, the installer displays the following error:

```
Error: This license file is not valid. Please contact Quest Licensing for
a new license file.
```

You will receive the following message after the license is installed, depending on the success of the installation:

- If the license is successfully installed:

```
** Successfully installed new license
```



- If the license install is failed:

```
** Error: Cannot configure new license from file <path-to-dlv-file>
```

## More resources

Additional information is available from the following:

- Online product documentation: <https://support.oneidentity.com/safeguard-for-sudo/technical-documents>
- One Identity Privileged Account Management forum: <https://www.quest.com/community/one-identity/unix-access-management/>

## 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 supports any single-byte character set. Double-byte or multi-byte character sets are not supported. 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.

## 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

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### Legend

-  **WARNING:** A WARNING icon highlights a potential risk of bodily injury or property damage, for which industry-standard safety precautions are advised. This icon is often associated with electrical hazards related to hardware.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

# Third-party contributions

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

**Table 7: List of Third-Party Contributions**

<b>Component</b>	<b>License or Acknowledgement</b>
APR Apache Runtime 1.4.5	This product includes software developed by the Apache Software Foundation ( <a href="http://www.apache.org">http://www.apache.org</a> ) Version 2.0, January 2004 This component is governed by the <a href="#">Apache License</a>
APR Utilities 2.0	This product includes software developed by the Apache Software Foundation ( <a href="http://www.apache.org">http://www.apache.org</a> ) Version 2.0, January 2004 This component is governed by the <a href="#">Apache License</a>
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Zlib 1.2.5	Copyright (c) 1995-2010 Jean-loup Gailly and Mark Adler  This component is governed by Zlib 1.2.5

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Version 2.0, January 2004

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