

Privilege Manager for Unix 7.1.1

Release Notes

13 April 2021, 02:30

These release notes provide information about the Privilege Manager for Unix release.

About this release

Privilege Manager for Unix protects the full power of root from potential misuse or abuse. With Privilege Manager for Unix there is no need to worry about anyone deleting critical files, modifying file permissions or databases, reformatting disks, or doing more subtle damage. Privilege Manager for Unix enables you to define a security policy that stipulates who has access to which root functions, as well as when and where they can perform those functions. It controls access to existing programs as well as purpose-built utilities that run common system administration tasks. At the administrator's request, Privilege Manager for Unix can protect sensitive data from network monitoring by encrypting the root commands or sessions it controls, including control messages and input keyed by users while running commands through Privilege Manager for Unix.

Privilege Manager for Unix 7.1.1 is a patch release that includes Resolved issues.

NOTE: Beginning with version 7.0, Privilege Manager for Unix supports only Linux-based systems for Privilege Manager for Unix policy servers.

New features

New features in Privilege Manager for Unix 7.1.1:

• Privilege Manager for Unix is shipped with OpenSSL shared objects since version 7.0. Due to recent high severity fixes in the OpenSSL library, the shipped shared objects

have been upgraded to version 1.1.1k, which include the corresponding fixes.

See also:

Resolved issues

Resolved issues

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

Table 1: Resolved Issues

Resolved Issue	Issue ID
Fixed packages for the HP-UX PA-RISC platform.	264411
The dynamic linking of OpenSSL libararies has been fixed on the HP-UX PA-RISC platform. All binaries are now functioning properly.	
Fixed the crash of the "pmpasswd" binary on the Linux/AArch64 platform.	265065
Fixed issue when Safeguard for sudo plugin is not able to join to policy group after upgrade on Solaris 10 SPARC.	267710
Fixed issue when Linux-ppc64 machines were unable to join to policy group. Running pmpoljoin_plugin or pmresolvehosts binaries crashed with segmentation fault on linux-ppc64 platform. This caused ppc64 machines not be able to join to a policy group.	268862

Supported platforms

The following table provides a list of supported platforms for Privilege Manager for Unix clients.

Platform	Version	Architecture
Amazon Linux AMI		x86_64
CentOS Linux	5, 6, 7, 8	Current Linux architectures: s390, s390x, PPC64, PPC64le, ia64, x86, x86_64, AARCH64
Debian	Current supported releases	x86_64, x86, AARCH64

Table 2: Linux supported platforms — server and client



Platform	Version	Architecture
Fedora Linux	Current supported releases	x86_64, x86, AARCH64
OpenSuSE	Current supported releases	x86_64, x86, AARCH64
Oracle Enterprise Linux (OEL)	5, 6, 7, 8	Current Linux architectures: s390, s390x, PPC64, PPC64le, ia64, x86, x86_64, AARCH64
Red Hat Enterprise Linux (RHEL)	5, 6, 7, 8	Current Linux architectures: s390, s390x, PPC64, PPC64le, ia64, x86, x86_64, AARCH64
SuSE Linux Enterprise Server (SLES)/Work- station	11, 12, 15	Current Linux architectures: s390, s390x, PPC64, PPC64Ie, ia64, x86, x86_64, AARCH64
Ubuntu	Current supported releases	x86_64, x86, AARCH64

Table 3: Unix and Mac supported platforms - client

Platform	Version	Architecture
Apple macOS	10.12, 10.13, 10.14, 10.15	x86_64
FreeBSD	11.x, 12.x	x86_64
HP-UX	11.31	PA, IA-64
IBM AIX	7.1 Technology Level 3 and higher, 7.2	Power 4+
Solaris	10.x, 11.x	SPARC, x64

System requirements

Before installing Privilege Manager for Unix 7.1.1, ensure that your system meets the following minimum hardware and software requirements.

NOTE: Beginning with version 7.1.1, Privilege Manager for Unix supports only Linuxbased systems for Privilege Manager for Unix policy servers.



Component	Requirements
Operating systems	See Supported platforms to review a list of platforms that support Privilege Manager for Unix clients.
Disk space	80 MB of disk space for program binaries and manuals for each architecture.
	Considerations:
	 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 Privilege Manager for Unix, ensure that the partitions that will contain /opt/quest have sufficient space available.
	 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.
	 The space can be on a network disk drive rather than a local drive.
	 The server hosting Privilege Manager for Unix must be a separate machine dedicated to running the pmmasterd daemon.
SSH software	You must install and configure SSH client and server software on all policy server hosts.
	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.
Processor	Policy Servers: 4 cores
Policy Servers: 4GB	

Table 4: Hardware and software requirements

Policy Servers: 4GB

Upgrade and compatibility

Privilege Manager for Unix supports a direct upgrade installation from version 6.0 and higher. The Privilege Manager for Unix software in this release is provided using platform-specific installation packages. For more information on upgrading, see the *One Identity Privilege Manager for Unix Administration Guide*.

One Identity recommends that:

- You upgrade your policy server (Master) systems before agents, and that a policy server is run at the same or higher level than agents.
- All policy server systems and agents 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.

Use of the Privilege Manager for Unix clients (pmrun and pmshells) with a policy server in Sudo policy mode is not supported.

Product licensing

Although licenses are allocated on a per-agent basis, you install licenses on Privilege Manager for Unix policy servers.

No special commands are required to register or license the clients with policy servers. Hosts using the Privilege Manager for Unix agents are automatically granted a license once a request is received on the Privilege Manager for Unix policy server by means of the pmrun command.

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 *Privilege Manager for Unix Administration Guide* for more information about the syntax and usage of the pmlicense command.

Upgrade and installation instructions

One Identity recommends that you follow these steps:

NOTE: Due to a change in the communication protocol, using 7.1 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. Installations of release 6.x are not affected and can still be used with 7.1.

1. Install Authentication Services on one machine, so you can set up your Active Directory forest.



- 2. Install One Identity Management Console for Unix, so you can perform all the other installation steps from the management console.
- 3. Add and profile hosts using the management console.
- 4. Configure the console to use Active Directory.
- 5. Deploy client software to remote hosts.
- 6. Deploy the Privilege Manager for Unix software.

See *Install PM Agent on a remote host* in the *One Identity Management Console for Unix Administration Guide* for more information about the installing an agent on a remote host.

Refer to the **Getting Started** tab in the management console for a better understanding of the steps to take to be up and running quickly.

Upgrade instructions

For information on upgrading Privilege Manager for Unix, see Upgrade Privilege Manager for Unix in Privilege Manager for Unix Administration Guide.

Upgrading your license

Depending on whether you are upgrading Privilege Manager for Unix 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 Privilege Manager for Unix 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 Privilege Manager for Unix version 7.0. If you are upgrading Privilege Manager for Unix 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 you 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:

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 *Privilege Manager for Unix Administration Guide*.

pmlicense -1 <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 the success of the installation:

• If the license is successfully installed:

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

• If the license install is failed:

More resources

Additional information is available from the following:

- Online product documentation: https://support.oneidentity.com/privilege-managerfor-unix/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 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



^{**} Error: Cannot configure new license from file <path-to-dlv-file>

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
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

Copyright 2021 One Identity LLC.

ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and



recording for any purpose other than the purchaser's personal use without the written permission of One Identity LLC .

The information in this document is provided in connection with One Identity products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of One Identity LLC products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, ONE IDENTITY ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ONE IDENTITY BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ONE IDENTITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. One Identity makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. One Identity does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

One Identity LLC. Attn: LEGAL Dept 4 Polaris Way Aliso Viejo, CA 92656

Refer to our Web site (http://www.OneIdentity.com) for regional and international office information.

Patents

One Identity is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at http://www.OneIdentity.com/legal/patents.aspx.

Trademarks

One Identity and the One Identity logo are trademarks and registered trademarks of One Identity LLC. in the U.S.A. and other countries. For a complete list of One Identity trademarks, please visit our website at www.OneIdentity.com/legal. All other trademarks are the property of their respective owners.

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 5: List of Third-Party Contributions

Component	License or Acknowledgement
APR Apache Runtime 1.4.5	This product includes software developed by the Apache Software Foundation (http://www.apache.org) Version 2.0, January 2004
	This component is governed by the Apache License
APR Utilities 2.0	This product includes software developed by the Apache Software Foundation (http://www.apache.org) Version 2.0, January 2004
	This component is governed by the Apache License
Dash 0.5.11.1	Copyright (c) 1989-1994 The Regents of the University of California. All rights reserved.
	Copyright (c) 1997 Christos Zoulas. All rights reserved.
	Copyright (c) 1997-2005 Herbert Xu. All rights reserved.
expat 2.0.1	Copyright (c) 1998, 1999, 2000, Thai Open Source Center Ltd and Clark Cooper
	Copyright (c) 2001, 2002, 2003, 2004,2005, 2006 Expat maintainers
	This component is governed by MIT expat 2.0.1
Less 418	Copyright 1984-2007 Mark Nudelman
MirBSD Korn	Copyright 2002-2020 mirabilos
Shell r59b	Copyright 2015, 2017, 2020 KO Myung-Hun
	Copyright 2015 Daniel Richard G.
	Copyright 2017 Giacomo Tesio
	All rights reserved.
	Copyright 2008, 2009 Lukas U.
	Copyright 2008, 2009 mirabilos
	This component is governed by the MirOS license
OpenSSL 1.1.1k	Copyright 1995 -1998 Eric Young (eay@cryptsoft.com) All rights reserved. This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)
	Copyright 1995-1998 Tim Hudson. This product includes software written by Tim Hudson (tjh@cryptsoft.com)



10

Component License or Acknowledgement

	All rights reserved.
	This component is governed by the OpenSSL 1998-2019 license. Copyright (c) 1998-2019 The OpenSSL Project. All rights reserved.
	This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (https://www.openssl.org/).
protobuf-c	Copyright 2008-2016, Dave Benson and the protobuf-c authors
1.3.3	All rights reserved.
	This component is governed by the BSD-Protobuf-c 1.3.3 license.
Subversion 1.6.15	This product includes software developed by the Apache Software Foundation (http://www.apache.org) Version 2.0, January 2004
	This component is governed by the Apache License
Sudo 1.9.2	Copyright 1994-1996, 1998-2020 Todd C. Miller
	Copyright 2001 Emin Martinian
	Copyright 2011 Daniel Kopecek
	Copyright 2009 Christian S.J. Peron
	Copyright 2014 Oracle and/or its affiliates
	Copyright 2008 Otto Moerbeek
	Copyright 1989, 1990, 1991, 1993 The Regents of the University of California. All rights reserved.
	Copyright 2011, VMware, Inc. All rights reserved.
	Copyright 2000 The NetBSD Foundation, Inc. All rights reserved.
	Copyright 1996 by Internet Software Consortium
	Copyright 1996 David Mazieres
	Copyright 2008 Damien Miller
	Copyright 2013 Markus Friedl
	Copyright 2017 Theo de Raadt
	Copyright 2008 Damien Miller
	Copyright 2014 Theo de Raadt
	Copyright 2014 Bob Beck
	Copyright 1995-2017 Jean-loup Gailly and Mark Adler
	Copyright 2008-2018 Dave Benson and the protobuf-c authors
	All rights reserved.



	Sudo is distributed under an ISC-style license
tcsh 6.22.02	Copyright 2007 Clarius Consulting, Manas Technology Solutions, InSTEDD
	All rights reserved.
	This component is goverend by the BSD 3-Clause license
Zlib 1.2.5	Copyright (c) 1995-2010 Jean-loup Gailly and Mark Adler
	This component is governed by Zlib 1.2.5

Component License or Acknowledgement

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.



"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. **Redistribution**. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may



add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions**. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. **Trademarks**. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. **Disclaimer of Warranty**. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. **Limitation of Liability**. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

