

SurePass

Linux Pluggable Authentication Module
(PAM)

SurePassID Authentication Server 2024



© 2013-2025 SurePassID, Corp. All rights reserved. Protected by patents pending. SurePassID, the SurePassID logo and design, and Secure SSO are registered trademarks or trademarks of SurePassID, Corp. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

SurePassID, Corp.
360 Central Avenue
First Central Tower
Suite 800
St. Petersburg, FL 33701
USA

+1 (888) 200-8144

www.surepassid.com



Table of Contents

<i>About the Linux Pluggable Authentication Module (PAM) Guide</i>	<i>4</i>
<i>Functionality</i>	<i>4</i>
<i>Supported PAM Services</i>	<i>4</i>
<i>Supported Platforms</i>	<i>5</i>
<i>Dependencies.....</i>	<i>6</i>
<i>PAM Service Configuration</i>	<i>6</i>
<i>Installation</i>	<i>7</i>
<i>Removing PAM Service Configurations</i>	<i>7</i>



About the Linux Pluggable Authentication Module (PAM) Guide

This guide explains how to add SurePassID multi-factor authentication (MFA) to Linux systems via the Pluggable Authentication Module (PAM) to meet your organization's security needs. The purpose of this guide is to provide a reference for system administrators of the system.

Functionality

Adds the following SurePassID multi-factor authentication (MFA) capabilities.

- Hardware OTP tokens. (TOTP or HOTP)
- Software OTP apps. (TOTP or HOTP)
- OTP codes via SMS, email, or voice.
- Offline OTP (using HOTP)
- Mobile Push Authentication
- Mobile Push Authentication with FIDO

Supported PAM Services

These PAM services found in `/etc/pam.d` are supported.

- sshd
- sudo
- su
- login (console login)
- gdm-password (desktop login & screensaver)

Supported Platforms

- Debian
 - Bookworm (12.7.x)
- Ubuntu
 - Noble Numbat (24.04.x)
 - Jammy Jellyfish (22.04.x)
 - Focal Fossa (20.04.x)
- CentOS Linux
 - CentOS 8
 - CentOS 7
- Centos Stream
 - CentOS Stream 10
 - CentOS Stream 9
 - CentOS Stream 8
- Rocky Linux
 - Rocky 9 (Blue Onyx)
 - Rocky 8 (Green Obsidian)
- Red Hat Enterprise Linux
 - RHEL 9
 - RHEL 8
 - RHEL 7

Dependencies

The PAM Module requires the following libraries which will be automatically installed.

- OpenSSL (SSL Connectivity)
- Jansson (JSON encoder/decoder)

PAM Service Configuration

The distribution tar file includes a template configuration file named `pam_surepassid.conf_TEMPLATE`. All the available options for the configuration are documented in that file. Make a copy of this file and update it for your environment. This file will be needed during the installation process.

NOTE: After running the installation as described in the next section, a copy of the configuration will be made to: `/etc/surepassid.d/pam_surepassid.conf`

Installation

This installation is performed running the script `pam_surepassid-install.sh` and following the prompts. Running the script requires superuser privileges via `sudo` and it will automatically prompt you for your password. You must create a configuration file before running the script. (see: PAM Service Configuration)

Example:

```
$ ./pam_surepassid-install.sh
Superuser privileges are required.
[sudo] password for your-username:
Installing pam_surepassid.so ...

<<<<< OUTPUT FROM THE INSTALL PROCESS >>>>>

Installation of pam_surepassid.so complete!

Enter path of SurePassID PAM configuration file. [./surepassid]:
Add SurePassID MFA PAM for sshd (recommended)? [y]/n:

!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! !!!
!!! WARNING WARNING WARNING WARNING WARNING !!!
!!! The following should only be configured !!!
!!! after testing that sshd works properly. !!!
!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! !!!

Add SurePassID MFA PAM for the login screen and screen saver (optional)? y/[n]:
Add SurePassID MFA PAM for su (optional)? y/[n]:
```

After the installation is complete, you can test it using `ssh` by running the following command:

```
ssh localhost
```

```
$ ssh localhost
Password:
Enter a verification code or press return to receive a push authentication request.
Verification code:
Sending push authentication request.
Waiting for you to authenticate on your mobile device...
Push authentication request was approved.
Activate the web console with: systemctl enable --now cockpit.socket
Last login: Wed Feb 23 11:43:27 2022 from ::1
$ exit
$
```

Removing PAM Service Configurations

If you would like to remove the SurePassID PAM service configurations, run the script `pam_surepassid-remove.sh` and follow the prompts.



NOTE: This does not remove the PAM plugin (`pam_surepassid.so`). It does disable it by removing it from the PAM service configurations in `/etc/pam.d`.

Example:

```
$ ./pam_surepassid-remove.sh Superuser
privileges are required.
[sudo] password for your-username:
=====
/etc/pam.d/sshd
/etc/pam.d/surepassid
=====
Are you sure that you would like to remove the SurePassID MFA PAM configuration? y/[n]: y
Removing SurePassID MFA PAM configuration from sshd
Removing SurePassID MFA PAM configuration /etc/pam.d/surepassid
SurePassID MFA PAM configuration removed!
```

