

# **Product Documentation**

# Installing and Configuring the Imprivata macOS Agent

Imprivata macOS Agent 25.3

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## What's New

The Imprivata macOS agent releases independently of Enterprise Access Management with SSO. As a result, the agent release number might be different than that of Enterprise Access Management.



#### NOTE:

Regardless of the Imprivata macOS agent version number, the agent is compatible with all currently maintained versions of Imprivata Enterprise Access Management with SSO. For a list of the maintained versions, see "Imprivata Enterprise Access Management with SSO Supported Components" in the Imprivata Environment Reference.

#### 25.2

## Customize the Imprivata Login Screen

This release introduces the ability to customize the Imprivata login screen. You can now:

- Incorporate your organization's logo.
- Add a background image.
- Add a custom message to the side banner.

You manage these changes from the computer policy in the Admin Console (**Computer policies** > **Customization** tab). For more information, see the Imprivata Enterprise Access Management with SSO help.

#### 25.3

This release introduces the following:

### Support for Walk-Away Security Inactivity

You can now secure a Mac device when keyboard and mouse inactivity is detected. When the keyboard and mouse inactivity threshold is reached, the lock and warning behavior is currently limited to obscuring the desktop without a warning.

You manage this functionality from the computer policy in the Admin Console (**Computer policies** > **Walk-Away Security** tab). For more information about configuring inactivity-based detection, see the Imprivata Enterprise Access Management with SSO help.

## Support for Imprivata Offline Authentication

Imprivata offline authentication (offline mode) is now supported. Offline authentication lets users log into Enterprise Access Management when an Imprivata agent cannot connect to the Imprivata server (appliance).

You manage this functionality from the user policy in the Admin Console (User policies > Authentication tab > Desktop Access authentication section). For more information about configuring offline authentication, see the Imprivata Enterprise Access Management with SSO help.



#### NOTE:

By design, the OpenID Connect and Epic Hyperspace workflow does not support offline mode. An OpenID Connect enabled application must be able to communicate with the Imprivata appliance to authenticate users.

# **Prerequisites**

Be sure that your Mac devices, hardware, and the Imprivata enterprise meet the following prerequisites.

## Minimum Required macOS version

Mac devices must be running macOS 15 (Sequoia).

## Minimum Epic Requirements

SSO into Epic requires the following:

- Epic must be running May 2024 or later.
- Epic Hyperdrive is installed locally on each of your Mac devices.

# **Supported Proximity Card Readers**

The following proximity card readers are supported:

- IMP-82
- IMP-82-MINI

## Supported Imprivata Appliance Versions

All currently maintained versions of Imprivata Enterprise Access Management are supported.



#### NOTE:

For a list of the maintained versions, see "Imprivata Enterprise Access Management with SSO Supported Components" in the Imprivata Environment Reference.

#### FileVault Considerations

By default, supported Mac devices use full disk encryption. Specifically:

- The volume encryption key is protected by the hardware UID in the Secure Enclave.
- Storage is soldered to the main board and does not operate if removed.

For additional protection, Apple offers FileVault. FileVault protects the volume encryption key with a combination of the hardware UID and a user's password.

The Imprivata macOS agent can co-exist with FileVault. When FileVault is enabled on a Mac device:

- Users must type their user name and password during the boot process.
- The Mac device pauses the boot process to wait for the credentials of a user who had previously logged into the device.
- After a user enters their credentials, and the volume is unencrypted, the Imprivata login screen appears and any user can tap their badge to login to their desktop.

Using the Imprivata macOS agent with FileVault requires that Apple's default credential pass-through be disabled. To disable the default credential pass-through, run the following command from the terminal:

sudo defaults write /Library/Preferences/com.apple.loginwindow \ DisableFDEAutoLogin -bool YES



#### NOTE:

To avoid the required manual interaction at boot, Imprivata recommends relying on the Mac's default disk encryption and disabling FileVault on shared devices. This simplifies the desktop access workflow across multiple users. To disable FileVault, configure the following setting: Settings > Privacy & Security > File Vault 'Off'.

## **Enabling Recovery Lock**

Imprivata recommends enabling macOS Recovery Lock via MDM. This prevents unauthorized file access when using the Mac's Recovery Mode.



#### NOTE:

For more information about enabling Recovery Lock, see your MDM vendor documentation.

# Installing the Imprivata Agent

Complete the following steps to install the Imprivata macOS agent.

# Imprivata Enterprise Access Management Configuration

In this section you:

- Identify the Imprivata appliance URL.
- Enable access to the Imprivata ProveID Web and ProveID Embedded API.

#### Step 1: Identifying the Imprivata Appliance URL

As part of the installation process, you specify the Imprivata appliance that the Imprivata macOS agent should connect to.

To locate the URL:

- 1. From the Imprivata Admin Console, go to the **Status** section.
- 2. Copy the appliance URL.

You specify the Imprivata appliance URL after installation is complete.

#### Step 2: Enabling Access to the Imprivata ProveID Web and ProveID Embedded API

The Imprivata macOS agent requires access to the Imprivata ProveID Web and ProveID Embedded API.

To enable access:

- 1. Go to the **gear** icon menu.
- Click API Access, and then go to the ProveID API access and security section.
- 3. Select Allow full API access via ProveID Web and ProveID Embedded.
- 4. Depending on your version of Enterprise Access Management, select one of the following:
  - 24.3 or earlier: Future 4.
  - 25.1 or later: Imprivata Agent for macOS.
- 5. Click **Save**.

## Mac Configuration

In this section you:

- Configure several system setting related to display, security, and privacy.
- Install the Imprivata macOS agent.
- Configure the connection to the Imprivata appliance.
- Enable device permissions for the Imprivata macOS agent.
- · Restart the device.

## Step 1: Configuring System Settings

Configure the following system settings related to display, security, and privacy:

Setting	Required value
Settings > Displays > Automatically adjust brightness	Off
Settings > Privacy & Security > Allow accessories to connect	Always
Settings > Privacy & Security > Lockdown Mode	Off
Settings > Battery	<ul> <li>Low Power Mode &gt; Never</li> <li>Options &gt; Slightly dim the display on battery: OFF</li> <li>Options &gt; Prevent automatic sleeping on power adapter when the display is off: ON</li> <li>Options &gt; 'Wake for network access' &gt; Always</li> </ul>

#### Step 2: Running the Installer

To run the installer:

- 1. Copy the package file (eam-mac-agent.pkg) to the Mac device.
- 2. Double-click the package to launch the **Installer** app and complete the installation.



#### NOTE:

As part of the installation, you are prompted to enable Input Monitoring permission for the Imprivata desktop agent. Enable the permission.

### Step 3: Specifying the Imprivata Appliance URL

You specify the Imprivata appliance URL so the Imprivata macOS agent can connect to it and obtain the enterprise topology.

To specify the URL:

- 1. Copy the configuration profile (ImprDesktopAgent.mobileconfig) to the desktop by running the following command from the terminal:
  - cp "/Library/Application Support/imprivata/ImprDesktopAgent.mobileconfig" ~/Desktop

- 2. Right-click the **ImprDesktopAgent.mobileconfig** profile, and open it with TextEdit. Edit it to include the Imprivata appliance URL:
  - a. Under the line <key>applianceURL</key> there is a placeholder <string></string>. Add the URL within the empty key tags.

For example: <string>example-appliance.com</string>

- b. Save the file.
- 3. Install the configuration profile:
  - a. Double-click the file to make it accessible from System Preferences.
  - b. Go to **System Preferences > Device Management**, and double-click it to install it.



#### NOTE

Alternatively, you can use your MDM to install this file to multiple Macs.

### Step 4: Enabling Device Permissions

The Imprivata macOS agent must be allowed to:

· Control the device.

As part of the installation, you enabled the Input Monitoring permission for the Imprivata desktop agent. In this step, you are giving the Imprivata device manager the Input Monitoring permission. Both the desktop agent and the device manager must be granted permission.

· Receive USB events.

Configure the following settings:

Mac device setting	Step
Settings > Privacy & Security > Accessibility	Click + and select /Applications/ Imprivata Desktop Agent.app.
Settings > Privacy & Security > Input Monitoring	Click + and select /Library/Application Support/imprivata/Imprivata Device Manager.app.

## Step 5: Restarting the Device

Completing the installation requires that you restart the Mac device:

- 1. Restart the Mac device.
- 2. Authenticate using the Imprivata macOS agent.

# Configuring Trust between the Imprivata Agent and the Appliance

You must add a signed SSL certificate from the Imprivata appliance to the Mac device. The certificate must either be:

<ul> <li>Signed by an Intermediate Certificate Authority (CA) or root CA equivalent.</li> <li>Self-signed by the Imprivata appliance CA that was created when the Imprivata enterprise was deployed.</li> </ul>				

#### Using a Self-Signed Certificate

To use a self-signed certificate:

- 1. From the Imprivata Appliance Console, go to the **Security** page > **SSL** tab.
- 2. Download the certificate. The default certificate name is ssoCA.cer.
- 3. From the Mac device, use the **Keychain Access** utility to install the certificate under **System** and enable trust (**Always Trust**).

#### Using a CA-signed Certificate

To use a certificate that is signed by a third-party CA:

- 1. Save a copy of the third-party root CA that was used to sign certificates on the Imprivata appliance.
- 2. From the Mac device, open **Keychain Access**, and install the certificate under **System Roots**.

# Managing Background User Sessions on Mac Devices

By default, the macOS lets multiple users login, but only allows one user session to be interactive at any time. All other user sessions remain in the background.

- This behavior conflicts with how Epic Hyperspace operates.
- Epic Hyperspace requires that all background user sessions be signed out.

To enable the Epic Hyperspace workflow, background user sessions are signed out by the Imprivata macOS agent.



#### NOTE:

If the background user session contains a modal dialog, it is not possible to sign out of the session. This is due to a limitation in the macOS API. Apple is investigating.

If you are not configuring the Epic Hyperspace workflow, you can disable the default Imprivata agent behavior.

To stop signing out of background sessions:

- 1. Go to /Library/Application\ Support/imprivata/ and edit ImprDesktopAgent.mobileconfig.
- 2. Locate SignOutBackgroundSession. The default value is <true/>.
- 3. Set the value to <false/> and apply the profile to your Mac devices.

# Upgrading and Uninstalling the Imprivata Agent

You upgrade and uninstall the Imprivata macOS agent manually.

# Upgrading

To upgrade the Imprivata macOS agent:

- 1. Disable the Imprivata agent from receiving USB events:
  - a. Go to Settings > Privacy & Security > Input Monitoring.
  - b. Select Imprivata Device Manager.app, and click -.
  - c. If prompted, enter root credentials.
- 2. Copy the upgraded package file (eam-mac-agent.pkg) to the Mac device.
- 3. Double-click the package file to launch the **Installer** app and complete the installation.
- 4. Allow the Imprivata agent to receive USB events:
  - a. Go to Settings > Privacy & Security > Input Monitoring.
  - b. Click +, and then select /Library/Application Support/imprivata/Imprivata Device Manager.app.

# Uninstalling

To uninstall the Imprivata macOS agent:

- 1. Disable the Imprivata agent from controlling the device:
  - a. Go to Settings > Privacy & Security > Accessibility.
  - b. Select Imprivata Desktop Agent.app, and click -.
  - c. If prompted, enter root credentials.
- 2. Disable the Imprivata agent from receiving USB events:
  - a. Go to Settings > Privacy & Security > Input Monitoring.
  - b. Select Imprivata Device Manager.app, and click -.
  - c. If prompted, enter root credentials.
- 3. Copy eam-mac-agent-uninstaller.pkg to the Mac device.
- 4. Double-click the package file to launch the **Installer** app to remove the Imprivata agent.

# OpenID Connect and Epic Hyperspace

Imprivata Web SSO with OpenID Connect (OIDC) extends single sign-on (SSO) functionality to Epic Hyperspace. When implemented:

- The Imprivata Identity Provider (IdP) window appears when Epic Hyperspace is launched.
- The Imprivata macOS agent logs the authenticated user in.

Support for OIDC requires that:

- Imprivata appliances be configured to communicate with the Imprivata Cloud service and SSO is configured and enabled.
- Epic Hyperspace is configured to communicate with the Imprivata environment.



#### NOTE:

If the Imprivata macOS agent is not present or the user is not enabled in Enterprise Access Management, the Imprivata IdP windows does appear, but can be closed. The user can authenticate to Hyperspace with their username and password, instead of using Imprivata ID plus a password.

# Imprivata Enterprise Access Management Configuration

In this section you:

- Configure the Imprivata appliance to connect to the Imprivata cloud.
- Create an Imprivata single sign-on application profile using a template that is designed for applications that use OpenID Connect.
- Associate the application profile with your Mac device users.
- Configure a trusted certificate for the web server that is installed with the Imprivata macOS agent.

### Step 1: Configuring a Connection to the Imprivata Cloud

Imprivata provides you with an Enterprise ID and one-time cloud provisioning code. This information is required to configure a connection to the Imprivata cloud.

- 1. In the Imprivata Admin Console, click the **gear** icon, and then click **Cloud connection**.
- 2. Enter your Enterprise ID and cloud provisioning code.
- 3. Click Establish Trust.

You can review the status of your enterprise's connection to the Imprivata cloud at any time:

- You can view status notifications in the Imprivata Admin Console. The cloud connection status of every appliance within every site is available (gear icon menu > Cloud connection page).
- Every appliance host is listed with its status. If there are problems with a connection, a recommendation for resolving the problem is provided.

#### Step 2: Creating an OIDC Application Profile

An Imprivata application profile is required for Epic Hyperspace. The profile allows the Imprivata appliance to manage the Epic authentication request.

Creating the profile requires that you coordinate with Epic TS:

• Epic TS provides you a redirect URI. You need this URI to configure the application profile.

Example of a redirect URI:

https://<epic\_interconnect\_instance\_ name/path>/api/epic/security/oidc/authorizationcodereceiver

• You provide Epic TS with client credentials and the Imprivata OIDC metadata.

Epic requires this information to update your Epic OIDC configuration.

To create the application profile:

- 1. From the Admin Console, click **Applications > Single sign-on application profiles**.
- 2. Click add App Profile > Application using Open ID Connect.
- 3. In Application profile name, enter Epic login.
- 4. In Application user-friendly name, enter Epic Hyperdrive.
- 5. In **Redirect URIs**, enter the URI that Epic provided you.
- Click Generate client credentials, and copy the Client ID and Client secret.
- 7. Click View and Copy Imprivata IdP OpenID Connect Metadata.



#### NOTE:

Provide this information to Epic TS. Epic uses this information to update the Epic OIDC configuration.

## Step 3: Associating the OIDC Application Profile with Users

You associate the OIDC application profile with your macOS users by applying a user policy to Imprivata Web SSO workflows. This enables the OIDC workflows for your users.

To apply a user policy to Imprivata Web SS) workflows:

- 1. From the Imprivata Admin Console, click Users > Workflow policy.
- 2. Go to the Web SSO workflows section.

This section includes a link on the right side. The text of this link varies depending on whether a user policy has been assigned.

For example, the link might appear as Associate user policies (0 users).

3. Click the link and select the user policy that is associated with your Mac devices.

#### Step 4: Configuring a Web Server Certificate

The Imprivata macOS agent must send Enterprise Access Management user session information to Epic using HTTPS. To meet this requirement, a local web server is installed with the Imprivata agent.

You must configure this web server with a trusted certificate. This certificate can be signed by the root certificate of one of the following:

- An external third-party CA.
- An internal enterprise CA, such as Microsoft Active Directory Certificate Services.

#### Installing the Root Certificate in to the Device Keychain

If the Mac device does not already have the root CA certificate, use the Keychain Access application to install it to the macOS keychain. Installing the root certificate ensures that the device trusts certificates that the root CA signs.

To install the root certificate:

- 1. From the Mac device, open the **Keychain Access** utility.
- 2. Install the certificate under **System** and enable trust (**Always Trust**).

#### Creating the Web Server Certificate

Create the web server certificate and sign it with the root CA certificate.

To create the certificate:

1. Create a private key for the web server by running the following command from the terminal:

```
openssl genrsa -out impr_server.key 2048
```

2. Create an OpenSSL configuration file with a Subject Alternative Name.

An example of this file is available below.

3. Create a Certificate Signing Request for the private key by running the following command:

```
openssl req -new -key impr_server.key -out impr_server.csr -config
localhost.cnf
```

4. Sign the Certificate Signing Request by running the following command:

```
openssl x509 -req -in impr_server.csr -CA <root_certificate> \
   -CAkey <root_key> \
   -CAcreateserial -out impr_server.crt -days 500 \
   -sha256 -extfile localhost.cnf -extensions v3_ext
```

Where:

- <root\_certificate> is the root CA certificate. For example, rootCA.pem.
- <root\_key> is the private CA key. For example, rootCA.key.

The certificate (impr\_server.crt) is signed by the CA and ready for use.

```
[req]
default_bits
                     = 2048
prompt
                     = no
default_md
                     = sha256
req_extensions
                     = req_ext
distinguished_name = dn
[ dn ]
C = \langle US \rangle
ST = <State>
L = <City>
0 = <Organization>
CN = localhost
[ req_ext ]
subjectAltName = @alt_names
[ alt_names ]
DNS.1 = localhost
[ v3_ext ]
subjectAltName = @alt_names
```

#### Where:

- <us> represents your country
- < State > represents your state.
- < city> represents your city.
- <organization> represents your organization.

#### Configuring the Web Server to use the Certificate

The web server can now use the certificate (impr\_server.crt).

To configure the web server to use the certificate:

- 1. Copy and replace the following files to/Library/Application\ Support/imprivata/ImprWebServer:
  - impr\_server.crt
  - impr\_server.key
- 2. Restart the web server by running the following command from the terminal:

sudo launchctl kickstart -k system/com.imprivata.ImprWebServer

# Epic Hyperspace OpenID Connect Configuration

Completing the integration requires that you coordinate with Epic TS:

- Trust must be established between Epic Hyperspace and the Imprivata appliance.
- Additional Epic-specific parameters must be configured.

### Step 1: Establishing Trust with the Imprivata appliance

Using the Imprivata single sign-on application that you created, provide the following to Epic TS:

- The client ID and client secret.
- The Imprivata (IdP) OpenID Connect Metadata.

#### Step 2: Configuring Epic Parameters

Coordinate with Epic TS to have the following parameters configured:

- Set the IdP window height to 756 pixels. This allows the Imprivata IdP window to display properly.
- Add **ACR** for the login device **OIDC** configuration. The login device configuration with OIDC needs to send an ACR as part of the request.

The ACR should have the following value:

com:imprivata:oidc:epic:sso

- Enable multiple sessions in the LWS record.
- Set Close Hyperdrive on Logout to Yes in the LWS record.

# Imprivata SSO to the Citrix Storefront Web Portal

You can configure an Imprivata application profile to enable SSO to the Citrix Storefront Web Portal.

## Limitations and Requirements

Consider the following:

- You must create the application profile from a Windows endpoint. The Imprivata macOS agent does not support the Imprivata Application Profile Generator (APG).
  - As such, it is presumed that the Windows and macOS versions of the Citrix Storefront Web Portal use the same web controls to manage authentication.
- You can profile the Citrix Storefront Web portal login screen only:
  - Profiling any other screen type, such as login failure or success, is not supported.
  - No other options of the application profile are supported.

## Profiling the Citrix Storefront Web Portal

When configuring the Imprivata APG application profile, you profile the browser tab in which the Citrix Storefront Web Portal is opened.

#### Step 1: Enabling the Imprivata Chrome Extension Object

Profiling an application that opens in a Chromium-based browser requires the Imprivata Chrome Extension.

- The Imprivata macOS agent installs, but does not enable, the extension from the Chrome Web store.
- After installing the Imprivata agent, enable the extension using a Mobile Device Management (MDM) solution, such as Jamf.

#### Step 2 Creating the Application Profile

Profile the browser tab in which the Citrix Storefront Web Portal opens.

To create the application profile:

- 1. From a Windows endpoint, log into the Imprivata Admin Console, and click **Applications** > **single sign-on application profiles**.
- 2. From Add app Profile, click Windows application using APG.
- 3. Profile the Citrix Storefront Web Portal login screen. At a minimum, the profile must include the following:
  - The username and password fields.
  - The control (button) that is used to submit the credentials.
- 4. Save the application profile and deploy it to your users.