

Managing Apple TV Devices with tvOS 10.2 or Later Using Jamf Pro

Technical Paper
Jamf Pro 10.6.0 or Later
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Jamf has made all efforts to ensure that this guide is accurate.

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Contents

4 Introduction

- 4 What's in This Guide
- 4 Additional Resources

5 Overview

- 5 Requirements

6 tvOS PreStage Enrollments

- 6 Requirements
- 6 Configuring a tvOS PreStage Enrollment
- 7 Related Information

8 tvOS Configuration Profiles

- 8 Restrictions Payload Settings for Apple TV
- 9 Single App Mode Payload Settings for Apple TV
- 9 Conference Room Display Payload Settings for Apple TV
- 10 Home Screen Layout Payload Settings for Apple TV
- 10 TV Remote Payload Settings for Apple TV
- 10 Related Information

11 Other tvOS Management Options

- 11 Enforcing a tvOS Device Name
- 11 tvOS Remote Commands
- 12 AirPlay Permissions

Introduction

What's in This Guide

This guide provides step-by-step instructions for enrolling and managing Apple TV devices with tvOS 10.2 or later.

Additional Resources

For more information on related topics, see the following resources:

- [*Jamf Pro Administrator's Guide*](#)
- Apple TV Help documentation
<http://help.apple.com/appletv/>

Overview

Beginning with tvOS 10.2, Apple TV devices can be enrolled via Apple's Device Enrollment Program (DEP) using a PreStage enrollment and managed in Jamf Pro (formerly the Jamf Software Server). This management includes creation of configuration profiles, the ability to send remote commands, and AirPlay options for associated iOS devices.

Requirements

- Apple TV (4th generation) with tvOS 10.2 or later
- Jamf Pro 9.98 or later (formerly the Casper Suite)

tvOS PreStage Enrollments

Beginning with tvOS 10.2, Apple TV devices can be enrolled via Apple's Device Enrollment Program (DEP) using a PreStage enrollment. As with computers and iOS devices, a PreStage enrollment allows you to store enrollment and mobile device setup settings in Jamf Pro and use them to enroll new Apple TV devices with Jamf Pro. This reduces the amount of time and interaction it takes to prepare mobile devices for use. For Apple TV, this includes supervising devices, requiring users to apply the MDM profile for enrollment, and auto advancing through the Setup Assistant with optional settings to skip selected items during enrollment.

Before you can use a PreStage enrollment, you need to integrate Jamf Pro with DEP. This creates an instance of DEP in Jamf Pro. (For more information, see [Integrating with the Device Enrollment Program](#) in the *Jamf Pro Administrator's Guide*.) Only devices associated with a DEP instance can be enrolled with Jamf Pro using a PreStage enrollment.


After creating a DEP instance, you need to create a PreStage enrollment in Jamf Pro for the Apple TV devices you want to enroll. Creating a PreStage enrollment allows you to configure the enrollment settings and customize the user experience of the Setup Assistant. You can also specify the devices that should be enrolled using the PreStage enrollment. In addition, you can specify that devices newly associated with the DEP instance be automatically added to the PreStage enrollment.

You can require users to authenticate during mobile device setup using an LDAP directory account or a Jamf Pro user account. If users authenticate with an LDAP directory account, user and location information is submitted during enrollment.

Requirements

To require LDAP users or Jamf Pro users to authenticate during mobile device setup, you need an LDAP server set up in Jamf Pro. (For more information, see [Integrating with LDAP Directory Services](#) in the *Jamf Pro Administrator's Guide*.) In addition, authentication requires Apple TV devices with tvOS 10.2 or later.

Configuring a tvOS PreStage Enrollment

1. Log in to Jamf Pro.
2. Click **Devices** at the top of the page.
3. Click **PreStage Enrollments**.
4. Click **New**  .
5. Use the General payload to configure basic settings for the PreStage enrollment.

- To automatically skip all available steps in the Setup Assistant for a zero-touch deployment experience, select the **Auto Advance through Setup Assistant (tvOS only)** checkbox. Ethernet, power, and HDMI connections are required.
Note: When using automatic setup, do not use the Siri Remote, as it will disrupt enrollment. Your Siri Remote is not automatically paired with your Apple TV when using Auto Advance.
 - To customize the user experience of the Setup Assistant, select which steps you want to skip in the Setup Assistant. If you choose to skip steps, the user can enable these settings after the device is configured unless otherwise restricted.
6. (Optional) Use the Mobile Device Names payload to specify the naming method for Apple TV devices. If desired, select the **Enforce Mobile Device Names** checkbox to reset device names to the selected naming method if modified by an end user.
 7. (Optional) Use the User and Location payload to specify user and location information for the Apple TV devices.
This information is stored in Jamf Pro for each device enrolled using a PreStage enrollment. The User and Location payload is only displayed if the **Require Authentication** checkbox is not selected.
 8. (Optional) Use the Purchasing payload to specify purchasing information for the Apple TV devices. This information is stored in Jamf Pro for each device enrolled using a PreStage enrollment.
 9. (Optional) Use the Attachments payload to upload attachments to store for Apple TV devices. This information is stored in Jamf Pro for each device enrolled using a PreStage enrollment.
 10. If the SSL certificate you are using is signed by an external CA (your organization's CA or a trusted third-party CA), use the Certificates payload to upload a certificate for the CA that you want mobile devices to trust at enrollment.
The anchor certificate is only displayed if the SSL certificate you are using is signed by the Jamf Pro built-in CA.
 11. Click the **Scope** tab and configure the scope of the PreStage enrollment by selecting the checkbox next to each Apple TV you want to add to the scope.
The Apple TV devices listed on the **Scope** tab are the devices that are associated with the Device Enrollment Program (DEP) via the server token file (.p7m) you downloaded from the Apple Deployment Programs website.
Note: If you want to add Apple TV devices to the scope automatically as the devices become associated with the DEP instance, select the **Automatically assign new devices** checkbox in the General payload.
 12. Click **Save**.

Related Information

For related information, see the following sections of the *Jamf Pro Administrator's Guide*:

- [Integrating with the Device Enrollment Program](#)
Find out how to configure an instance of DEP.
- [Mobile Device PreStage Enrollments](#)
Find out how to refresh PreStage enrollment information.

tvOS Configuration Profiles

Mobile device configuration profiles are XML files (.mobileconfig) that provide an easy way to define settings and restrictions for mobile devices. Jamf Pro can be used to deploy mobile device configuration profiles to Apple TV devices with Apple TV software based on iOS 7 or later, or Apple TV devices with tvOS 10.2 or later.

The following configuration profile payloads are compatible with tvOS 10.2 or later:

- General
- Restrictions
- Wi-Fi
- Home Screen Layout (tvOS 11 or later)
- Certificate
- SCEP
- Single App Mode
- Global HTTP Proxy
- AirPlay Security (tvOS 11 or later)
- Conference Room Display
- TV Remote

Note: A configuration profile containing both the iOS and tvOS selected options will be deployed to all devices in scope. Devices will ignore the restrictions that do not pertain to their device type.

For more information on creating or uploading a mobile device configuration profile, see [Mobile Device Configuration Profiles](#) in the *Jamf Pro Administrator's Guide*.

Restrictions Payload Settings for Apple TV

The following restrictions are available for Apple TV devices with tvOS 10.2 or later through configuration profiles:

- Allow AirPlay (supervised devices only)
Selecting **Allow AirPlay** prevents AirPlay on scoped tvOS devices. Scoped tvOS devices will not appear in a list of available devices when attempting to AirPlay on Apple TV.
- Require passcode on first AirPlay pairing
You can select **Require passcode on first AirPlay pairing** for tvOS devices to require devices to provide the AirPlay password.
Note: Does not require tvOS 10.2 or later.
- Allow control using Remote app
Selecting **Allow control using Remote app** prevents iOS devices from using the Remote app with Apple TV, and instead requires the use of a Siri Remote.
Note: This restriction does not prevent the use of the Siri Remote.

- Allow modifying device name (tvOS 11 or later)
- Restrict App Usage (tvOS 11 or later, supervised only)
You can restrict app usage by creating an allowed or disallowed app list. When searching for apps to add to the list, the bundle ID can help differentiate between tvOS (e.g., com.apple.TVappname) and iOS (e.g., com.apple.appname) apps. Devices will ignore the bundle IDs that do not pertain to their device type.
- Media Content (tvOS 11 or later)

Single App Mode Payload Settings for Apple TV

Beginning with tvOS 10.2, you can set supervised Apple TV devices to Single App Mode. Single App Mode locks scoped devices to a selected app. Apple TV devices in Single App Mode can still use AirPlay, unless restricted via the Restrictions payload. A device in Single App Mode that reboots will automatically resume locked screen display without first showing the Home Screen.

Note: Attempting to lock Apple TV devices to an in-house or third-party app that does not yet exist on the devices will cause an error. To avoid this issue, ensure the app is installed on scoped devices before configuring Single App Mode.

The following settings can be enforced when in Single App Mode:

- Touch
When enforced, all touch input is disabled on the device including Siri Remote and any paired iOS devices.
- Auto-Lock
When enforced, Auto-Lock is disabled, preventing the tvOS screen saver from appearing.

The following settings can be enforced or set to allow users to change when in Single App Mode:

Note: When enforced, these settings are disabled.

- VoiceOver
- Zoom
- Invert Colors

Conference Room Display Payload Settings for Apple TV

Beginning with tvOS 10.2, you can set supervised Apple TV devices to Conference Room Display mode using Jamf Pro. Unless a background image and screen saver are manually defined in the Apple TV device settings, Conference Room Display locks scoped Apple TV devices to a black wallpaper screen and downloads a default screen saver. This mode can also display a message if configured.

Conference Room Display can be deployed automatically, and apps can install while devices are in this mode. A device set to Conference Room Display mode that reboots will automatically resume locked screen without first showing the Home Screen.

Note: If an Apple TV device is running Single App Mode, or if Single App Mode is deployed with Conference Room Display, Conference Room Display will override Single App Mode. In addition, if an Apple TV device is connected to a network via Ethernet, Conference Room Display will not automatically display a Wi-Fi network to join for AirPlay sharing. This can be manually added to the On-Screen Message field of the configuration profile in the Conference Room Display payload.

Home Screen Layout Payload Settings for Apple TV

Beginning with tvOS 11, you can configure the Home Screen Layout on supervised Apple TV devices using Jamf Pro. The content of the Home Screen can now include applications and folders. They are displayed on the screen in the same order as defined in the configuration profile payload. Folders that exist on a device but are not defined in the payload will be removed when the profile is installed.

Note: If an application configured in the Home Screen Layout payload is not installed on a device, it will not display, or download and install automatically.

TV Remote Payload Settings for Apple TV

Beginning with tvOS 11.3, you can restrict connections from the Apple TV Remote app. To lock a specific Apple TV device to a specific iOS 11.3 or later device with the Apple TV Remote app, configure both types of devices in the same payload.

Related Information

For related information, see the following sections of the *Jamf Pro Administrator's Guide*:

- [Mobile Device Configuration Profiles](#)
Learn about creating, uploading, and viewing mobile device configuration profiles.
- [Payload Capabilities for Mobile Device Configuration Profiles](#)
Learn about the payload capabilities of each iOS and tvOS version.
- "Viewing the Pending Management Commands for a Mobile Device" on the [Viewing Management Information for a Mobile Device](#) page
Find out how to view and cancel pending mobile device configuration profile installations and removals for a mobile device.
- "Viewing Configuration Profiles for a Mobile Device" on the [Viewing Management Information for a Mobile Device](#) page
Find out how to view the mobile device configuration profiles in the scope for a mobile device.
- "Viewing Management History for a Mobile Device" on the [Viewing the History for a Mobile Device](#) page
Find out how to view all completed, pending, and failed mobile device configuration profile installations and removals for a mobile device.

Other tvOS Management Options

Enforcing a tvOS Device Name

Beginning with tvOS 10.2, you can set Apple TV device names for supervised devices in Jamf Pro, and optionally enforce the set name. If enforced, Jamf Pro will reset the device name to the set name if modified by an end user.

Setting a tvOS Device Name

1. Log in to Jamf Pro.
2. Click **Devices** at the top of the page.
3. Do one of the following:
 - View mobile device group memberships. (For more information, see [Smart Device Groups](#) or [Static Device Groups](#) in the *Jamf Pro Administrator's Guide*.)
 - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#) in the *Jamf Pro Administrator's Guide*.)
4. Click the tvOS device you want to edit information for.
5. Select the **General** category.
6. Click **Edit General**.
7. (Optional) To enforce the Apple TV device name, select the **Enforce Mobile Device Name** checkbox.
8. Click **Save**.

tvOS Remote Commands


Beginning with tvOS 10.2, you can send the following remote commands to Apple TV devices:

- Restart Device (supervised devices only)
- Wipe Device

Sending a Remote Command

1. Log in to Jamf Pro.
2. Click **Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#) in the *Jamf Pro Administrator's Guide*.

4. Click the tvOS device you want to send the remote command to.

If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.

5. Click the **Management** tab, and then click the button for the remote command that you want to send.

The remote command runs on the tvOS device the next time the device contacts Jamf Pro.

For more information, see [Remote Commands for Mobile Devices](#) in the *Jamf Pro Administrator's Guide*.

Mass Sending Remote Commands to tvOS Devices


1. Log in to Jamf Pro.
2. Click **Devices** at the top of the page.
3. Do one of the following:
 - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#) in the *Jamf Pro Administrator's Guide*.)
 - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#) in the *Jamf Pro Administrator's Guide*.)
Note: You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Send Remote Commands**.
6. Select the remote command to send to tvOS devices.
7. Follow the onscreen instructions to send the remote command.



AirPlay Permissions

In Jamf Pro, you can automatically associate managed Apple TV devices with managed iOS devices by mapping to an inventory field that both devices have in common. This mapping allows you to define which Apple TV devices display as available AirPlay destinations on managed iOS devices.

Note: AirPlay permission mapping can be sent to any managed Apple TV device, regardless of OS version. The settings listed below are applied to the iOS device.

Configuring AirPlay Permissions

1. Log in to Jamf Pro.
2. In the top-right corner of the page, click **Settings** .

3. Click **Global Management**.
4. Click **AirPlay Permissions** .
5. Click **New**  .
6. Enter a display name for the AirPlay Permission.
7. Select the inventory field from the **Mapping Field** pop-up menu.
8. (Optional) Enable settings for restricting AirPlay destinations and automating passwords, as needed:
 - Select the **Restrict AirPlay destinations** checkbox to display only allowed AirPlay destinations (supervised only).
 - Select the **Automate passwords for permitted AirPlay destinations** checkbox to automatically send the password for allowed AirPlay destinations to devices.
 - Select the **Restrict Apple TV Remote app connections** checkbox to display only allowed Apple TV Remote app connections between mapped devices.
9. Click **Save**.