Deploying iOS Devices Using Apple Configurator 2 and the Casper Suite

Technical Paper
Casper Suite v9.82 or Later
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Introduction

What's in This Guide

This guide provides step-by-step instructions for deploying iOS devices using Apple Configurator 2 and the Casper Suite.

Additional Resources

- Apple Configurator: Transitioning to Apple Deployment Programs
  Decide whether to use Apple Configurator 2 or Apple Deployment Programs to deploy iOS or macOS devices in education and business environments.

- Apple Configurator 2 Help
  Access the Apple Configurator 2 help documentation.

- Casper Suite Administrator's Guide
  Find more instructions related to enrollment, configuration, security management, and distribution with the Casper Suite.
Choosing a Deployment Method

If your organization is enrolled in Apple's Device Enrollment Program (DEP), use the following deployment method:

- **Automated enrollment**—This method uses a PreStage enrollment to enroll devices with the JSS, supervise them, and configure device setup. First, a PreStage enrollment is created in the JSS and then a blueprint is created in Apple Configurator 2. The blueprint is then applied to devices, which connects the devices to a Wi-Fi network and applies the settings in the PreStage. This method also allows you to apply a supervision identity to devices as they are enrolled with the JSS. This is done by associating a supervision identity with the DEP instance that is configured in the PreStage.

If your organization is NOT enrolled with DEP, use one of these deployment methods:

- **Manual enrollment with an enrollment URL**—With this method, an Apple Configurator 2 blueprint is used to connect devices to an enrollment URL, which enrolls the devices with the JSS. The blueprint is also used to supervise the devices, configure device settings, and apply a supervision identity. To apply the blueprint, devices must be connected to an Apple Configurator 2 workstation with a USB cable.

- **Manual enrollment with an enrollment profile**—With this method, an Apple Configurator 2 blueprint is used to apply an enrollment profile to devices, which enrolls the devices with the JSS. The blueprint is also used to supervise the devices, configure device settings, and apply a supervision identity. To apply the blueprint, devices must be connected to an Apple Configurator 2 workstation with a USB cable.

Once devices are enrolled with the JSS, they can be managed remotely using the Casper Suite.
Supervision Identities

Starting with Apple Configurator 2, supervised devices can be paired with multiple Apple Configurator 2 workstations. To ensure that devices are paired securely, each workstation must have a matching supervision identity and an identity certificate (.p12 file) with a private key. The identity is applied to devices when enrolled using a PreStage enrollment or paired with an Apple Configurator 2 workstation. If the wrong identity is applied to a device, the device must be wiped, re-supervised, and re-enrolled to change the identity.

Supervision identities can be created in Apple Configurator 2 or the JSS. If the identity you want to use is already in Apple Configurator 2, you can use it with any of the workflows explained in this paper. Otherwise, you can use the JSS to create a new supervision identity that can be downloaded as an identity certificate and private key.

For more information about supervision identities, see "About Identities" in Apple's Help documentation.

Use a Supervision Identity from Apple Configurator 2

1. Download the identity from Apple Configurator 2:
   a. Navigate to Preferences > Organizations and select the identity.
   b. Click the Action pop-up menu (gear icon) and then choose Export Supervision Identity.
   c. Enter a password for the identity.
      You will need to enter the password when uploading the identity to the JSS.
   d. Save the identity.
      The identity is saved to the workstation as a .p12 file.

2. Upload the identity to the JSS so it can be accessed from other Apple Configurator 2 workstations. See "Uploading a Supervision Identity" on the Supervision Identities page in the Casper Suite Administrator's Guide.

3. From an Apple Configurator 2 workstation, log in to the JSS.

4. Download the supervision identity (.p12).
   See "Downloading a Supervision Identity" on the Supervision Identities page in the Casper Suite Administrator's Guide.

5. Double-click the .p12 file and add it to Keychain Access.

6. Import the identity to Apple Configurator 2 by choosing the identity.
   See "Generate or Choose a Supervision Identity" in Apple's Help documentation.

Repeat steps 3–6 on other Apple Configurator 2 workstations.
Create and Use a Supervision Identity from the JSS

1. Create a supervision identity using the JSS.
   See Supervision Identities in the Casper Suite Administrator's Guide.

2. From an Apple Configurator 2 workstation, log in to the JSS.

3. Download the supervision identity (.p12).
   See "Downloading a Supervision Identity" on the Supervision Identities page in the Casper Suite Administrator's Guide.

4. Double-click the .p12 file and add it to Keychain Access.

5. Import the identity to Apple Configurator 2 by choosing the identity.
   See "Generate or Choose a Supervision Identity" in Apple's Help documentation.

Repeat steps 2–5 on other Apple Configurator 2 workstations.
Automated Enrollment

Requirements

To deploy devices using automated enrollment, you need:

- The JSS v9.82 or later
- iOS devices supported by Apple Configurator 2
- A Mac with Apple Configurator 2 installed
- Enrollment in Apple's Device Enrollment Program (DEP)

For detailed Apple Configurator 2 requirements, see "Requirements" in Apple's Help documentation.

Deploy Devices Using Automated Enrollment

1. Make sure the JSS is integrated with DEP.
   See Integrating with the Device Enrollment Program in the Casper Suite Administrator's Guide.
   To automatically apply a supervision identity as devices are enrolled using a PreStage enrollment,
   make sure a supervision identity is specified for the DEP instance in the PreStage.
   See "Adding a Supervision Identity to a DEP Instance" on the Supervision Identities page in the Casper
   Suite Administrator's Guide.

2. Create a PreStage enrollment and add devices to the scope.
   Make sure device supervision is selected in the PreStage. Also, select which steps in the iOS Setup
   Assistant to skip.
   See Mobile Device PreStage Enrollments in the Casper Suite Administrator's Guide.

3. In Apple Configurator 2, create a Wi-Fi configuration profile.
   See "Create and Customize a Configuration Profile" in Apple's Help documentation.

4. Create the blueprint that will be used to apply the profile.
   See "About Blueprints" in Apple's Help documentation.

5. Prepare the blueprint.
   Make sure to select "Automated Enrollment", add the Wi-Fi configuration profile, and provide
   credentials to the JSS if required in the PreStage enrollment.
   See "Prepare Devices Using Automated Enrollment" in Apple's Help documentation.

6. Apply the blueprint to devices.
   See "About Blueprints" in Apple's Help documentation.

   The devices connect to the network that is specified in the Wi-Fi configuration profile. Then they are
   enrolled with the JSS and configured with the settings in the PreStage enrollment.
Manual Enrollment with an Enrollment URL

Requirements

To deploy devices using manual enrollment and a static enrollment URL, you need:

- The JSS v9.82 or later
- iOS devices supported by Apple Configurator 2
- A Mac with Apple Configurator 2 installed

To deploy devices using manual enrollment and a dynamic enrollment URL, you need:

- The JSS v9.96 or later
- iOS devices supported by Apple Configurator 2
- A Mac with Apple Configurator 2 installed
- An SMTP server set up in the JSS

For detailed Apple Configurator 2 requirements, see "Requirements" in Apple's Help documentation.

For information on static and dynamic Apple Configurator 2 enrollment URLs, see Apple Configurator Enrollment Settings in the Casper Suite Administrator's Guide.

Deploy Devices Using Manual Enrollment with an Enrollment URL

1. In the JSS, enable the Apple Configurator enrollment method(s) you intend to use. See Apple Configurator Enrollment Settings in the Casper Suite Administrator's Guide.

2. If you are enrolling via a dynamic URL, use an enrollment invitation to generate and view the enrollment URL or send it to the person operating the Apple Configurator workstation. See "Viewing or Sending a Dynamic Apple Configurator Enrollment URL via a Mobile Device Enrollment Invitation" on the Apple Configurator Enrollment Settings page in the Casper Suite Administrator's Guide.

3. Make sure a supervision identity is in the JSS and on Apple Configurator 2 workstations.

4. In Apple Configurator 2, add the enrollment URL for the JSS to the MDM server preferences.
   - If you are enrolling via the static URL, enter the static Apple Configurator enrollment URL for the JSS. The static Apple Configurator enrollment URL for the JSS is the URL for the JSS followed by “/configuratorennroll”. For example, "https://jss.mycompany.com:8443/configuratorennroll".
If you are enrolling via dynamic URL, the enrollment URL is available in the JSS or in the email or SMS message sent via the enrollment invitation, depending on whether you chose to view or send the URL.


5. If users will not connect to a network independently, create a Wi-Fi configuration profile. See "Create and Customize a Configuration Profile" in Apple's Help documentation.

6. Create a blueprint that will be used to apply the profile and enroll devices with the JSS. See "About Blueprints" in Apple's Help documentation.

7. Modify the device information for the blueprint if desired. See "Modify Device Information" in Apple's Help documentation.

8. Prepare the blueprint:
   - Select "Manual Enrollment".
   - Select the Casper Suite as the MDM solution.
   - Select your supervision options and choose a supervision identity.
   - Select which steps in the iOS Setup Assistant to skip.

9. If you created a Wi-Fi profile, add the Wi-Fi profile to the blueprint. See "Add Configuration Profiles" in Apple's Help documentation.

10. Connect devices to the Apple Configurator 2 workstation using a USB cable.

11. Apply the blueprint. See "About Blueprints" in Apple's Help documentation.

The devices are configured with the settings in the blueprint and enrolled with the JSS.
Manual Enrollment with an Enrollment Profile

Requirements

To deploy devices using manual enrollment and an enrollment profile, you need:

- The JSS v9.82 or later
- iOS devices supported by Apple Configurator 2
- A Mac with Apple Configurator 2 installed

For detailed Apple Configurator 2 requirements, see "Requirements" in Apple's Help documentation.

Create an Enrollment Profile

1. In the JSS, create an enrollment profile.
   See "Creating an Enrollment Profile for Use with Apple Configurator" on the Enrollment Profiles page in the Casper Suite Administrator's Guide.

2. Download the trust profile (Trust Profile.mobileconfig) from the JSS.
   See "Downloading the Trust Profile" on the Enrollment Profiles page in the Casper Suite Administrator's Guide.

3. Download the enrollment profile (<Nameofprofile>.mobileconfig) from the JSS.
   See "Downloading an Enrollment Profile" on the Enrollment Profiles page in the Casper Suite Administrator's Guide.

Create and Upload the Supervision Identity

Make sure a supervision identity is in the JSS and on Apple Configurator 2 workstations.

Create the "Prepare" Blueprint

The "Prepare" blueprint will be used to apply a Wi-Fi configuration profile and the supervision identity.

1. In Apple Configurator 2, create a Wi-Fi configuration profile.
   See "Create and Customize a Configuration Profile" in Apple's Help documentation.

2. Create a blueprint and name it "Prepare".
   See "About Blueprints" in Apple's Help documentation.
3. Modify the device information for the blueprint if desired.  
   See "Modify Device Information" in Apple’s Help documentation.

4. Prepare the blueprint:  
   See "Prepare Devices Manually" in Apple’s Help documentation.  
   
   a. Select "Manual Enrollment".  
   
   b. Select "Don’t Enroll in MDM".  
      Devices will be enrolled with the JSS through the enrollment profile, not the blueprint.  
   
   c. Select your supervision options and choose a supervision identity.  
   
   d. Select which steps in the iOS Setup Assistant to skip.  

5. Add the Wi-Fi profile to the blueprint.  
   See "Add Configuration Profiles" in Apple’s Help documentation.

6. Add the trust profile (Trust Profile.mobileconfig) to the blueprint.

Create the "Enroll" Blueprint

The "Enroll" blueprint will be used to enroll devices with the JSS by installing the trust profile and the enrollment profile.

1. Create a blueprint and name it "Enroll".  
   See "About Blueprints" in Apple’s Help documentation.  

2. Add the enrollment profile (<Nameofprofile>.mobileconfig) to the blueprint.  
   See "Add Configuration Profiles" in Apple’s Help documentation.  

   Note: Do not prepare this profile.

Deploy Devices Using Manual Enrollment with an Enrollment Profile

1. Connect devices to the Apple Configurator 2 workstation using a USB cable.

2. Apply the "Prepare" blueprint to the devices.  
   See "About Blueprints" in Apple’s Help documentation.

3. Apply the "Enroll" blueprint to the devices.

   The devices are first configured with the settings in the "Prepare" blueprint. Then they are enrolled with the JSS using the "Enroll" blueprint.