

ZENworks

Mac MDM Reference

August 2023

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Contents

About This Guide	5
Part I Getting Started	7
1 Supported Devices for Mac MDM	9
2 Overview	11
Part II Enrolling Mac MDM Devices	13
3 Enrolling Mac MDM using ADE/DEP	15
4 Enrolling Mac MDM using the OTA Profile	17
Part III Managing Mac Devices	25
5 Viewing Device Information	27
6 Viewing Device Status	29
7 Creating the macOS MDM Bundle	31
7.1 macOS MDM Configuration Profile and Commands.	31
8 Refreshing a Device	35
Initiating a Scheduled Refresh	35
Timed Refresh	36
Manually Triggered Refresh	36
Refresh Device Quick Task.	36
9 Account Configuration	37
10 Managing the DEP Settings	39
General and Skip Setup Item Settings	39
General.	39
Skip Setup Items	41
Skip Setup Items - Mac	41

11 Unsupported Features	43
A Troubleshooting Scenarios	45
A.1 Devices respond as NotNow when a Mac device is locked	45

About This Guide

This *ZENworks Mac MDM* guide includes information about configuration and use the Mac MDM feature in ZENworks. The information in this guide is organized as follows:

- ♦ [Part I, “Getting Started,” on page 7](#)
- ♦ [Part II, “Enrolling Mac MDM Devices,” on page 13](#)
- ♦ [Part III, “Managing Mac Devices,” on page 25](#)
- ♦ [Appendix A, “Troubleshooting Scenarios,” on page 45](#)

Audience

This guide is intended for ZENworks administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

Additional Documentation

ZENworks Configuration Management is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the [ZENworks documentation Web site](#).

Getting Started

The following sections provide information on how to get started with the Mac MDM in ZENworks Configuration Management. You should already have installed your ZENworks system. If not, see the [ZENworks Server Installation](#).

- ♦ [Chapter 1, “Supported Devices for Mac MDM,” on page 9](#)
- ♦ [Chapter 2, “Overview,” on page 11](#)

1 Supported Devices for Mac MDM

Mac MDM is supported on the following devices:

Device	Functionality
Macintosh 10.13.x (High Sierra)	♦ Enrollment through the Apple Device Enrollment Program
Macintosh 10.14.x (Mojave)	♦ Installation of Configuration Profile
Macintosh 10.15.x (Catalina)	♦ Device Management: Refresh Device
Macintosh 11.x (Big Sur)	
Macintosh 12.x (Monterey)	
Macintosh 13.x (Ventura)	

2 Overview

Limited Support for Mac MDM

In the current ZENworks 23.3 release, Mac MDM support is limited. Not all management capabilities that are normally expected for a ZENworks managed device are working. The features which are documented should work as expected, but there may be issues with undocumented aspects of device management. For some issues, a fix may only be available in a later release.

IMPORTANT: At this time, device enrollment via Apple Device Enrollment Program or Over The Air (OTA) is currently limited and should be used for evaluation purposes only. Future releases will include full support as the capabilities are fleshed out.

Mac MDM provides a management solution to help IT administrators to manage devices, without compromising users' privacy on their devices. The ZENworks Mac MDM document includes information that is required to configure and use the Mac MDM feature in ZENworks. By leveraging the features of ZENworks, you can perform multiple management operations on Mac devices:

- ♦ **Enroll (register) devices** to your ZENworks Management Zone. Users can enroll their devices as:
 - ♦ **Managed:** Management of a Mac device is enabled using the ZENworks Agent and Mac MDM that is installed on the device. When a Mac MDM device is enrolled via DEP or OTA, those devices are managed by ZENworks.
- ♦ **Utilize Apple Device Enrollment Program (DEP)** to streamline deployment of multiple corporate owned Mac MDM devices.
- ♦ **Distribute Configuration Profile** to Managed Mac devices to manage certain features on the device such as access to VPN and to run enterprise apps.

NOTE: In ZENworks 23.3, the Provisioning Profile type is not supported when creating the macOS MDM bundle.



Enrolling Mac MDM Devices

You can enroll Mac MDM devices to a zone either via ADE/DEP or OTA. Any Mac device that already exists in zone as a ZENworks Agent only device, can be enrolled again via MDM and it reconciles to the existing device present in the zone.

NOTE: ♦To enroll any Mac MDM device via DEP which is already enrolled as ZENworks Agent then the device has to be reset.

- ♦ The Mac MDM devices can be enrolled using either the Apple Device Enrollment Program (DEP) or Over The Air (OTA). Do NOT use both DEP and OTA enrollment methods on the same device.
-

This section explains the manner in which Mac MDM devices can be enrolled in the zone. The topics discussed are as follows:

- ♦ [Chapter 3, “Enrolling Mac MDM using ADE/DEP,” on page 15](#)
- ♦ [Chapter 4, “Enrolling Mac MDM using the OTA Profile,” on page 17](#)

3 Enrolling Mac MDM using ADE/DEP

The Device Enrollment Program (DEP) is part of the Apple Deployment Programs and provides administrators with a streamlined way to deploy multiple corporate owned Apple devices. Upon device activation, configuration of the device is immediate and enrollment with the MDM server is automatic. There is no need for IT administrators to physically access each device to complete the setup.

Prerequisites:

Before enrolling a Mac device to ZENworks, you need to ensure that the prerequisites are met in the following order:

Task	Details
In the Apple Business Manager Portal, add an MDM Server	For more information, refer to the Apple documentation
MDM Servers and APNs	For more information, see MDM Servers and APNs Configuration
Configure the ZENworks MDM Server	For more information, see Configuring an MDM Server
Enable Push Notifications	For more information, see Enabling Push Notifications
Configure a DEP Server in ZENworks. The workflow associated with enrolling DEP devices are as follows: <ul style="list-style-type: none">♦ Linking ZENworks to the Apple Deployment Programs Account♦ Assigning Devices♦ Syncing Devices♦ Viewing DEP Devices	For more information, see Linking ZENworks to the Apple Deployment Programs Account, Assigning Devices, Syncing Devices, Viewing DEP Devices
Setup DEP Attributes - including Skip Panes / Mac Accounts	For more information, see “General and Skip Setup Item Settings” on page 39.
Configure the Administrator and Primary User Accounts	For more information, see “Account Configuration” on page 37.
NOTE: Account configuration is required only for ADE or DEP and not required for OTA.	

For information on enrolling any existing Mac OS device as DEP, see the following Apple documentation sections:

- ♦ [Apple Configurator User Guide](#)
- ♦ [Apple Configurator for Mac](#)

Procedure:

Enrolling a DEP device is simple for an end user, as you can enable the user to skip most of the device activation prompts by modifying the DEP settings.

Turn on the device and follow the setup prompts to enroll the device after powering on the device for the first time or after device reset. Once the wizard is finished, the Mac device will be enrolled into ZENworks via MDM.

If the User account is configured (Admin or local user account) then those accounts will be created on the Mac device.

After the device enrolls, you can view the Deployment Status of the device in ZCC, which should have changed from Discovered to Managed. You can view this status on **Device > Discovered > Apple DEP Devices**. For more information, see [Chapter 5, “Viewing Device Information,” on page 27](#). The enrolled device object is also created within the Workstations folder (**Devices > Workstations**).

For more information, see [Enrolling a DEP Device](#).

4 Enrolling Mac MDM using the OTA Profile

You can now securely enroll non-DEP devices into ZENworks using the OTA (over-the-air) Profile which deploys the enrollment profile without a reset of the device.

- ♦ Devices that already have ZENAgent deployed, can onboard MDM without having to reset the device and go through ADE enrollment.
- ♦ Devices in use can enroll in ZENworks without having to reset the device and go through ADE enrollment.

NOTE: To enroll Mac devices as MDM using OTA, you need to have Mac administrator permissions.

Before enrolling a macOS device, you need to ensure that the following prerequisites are met:

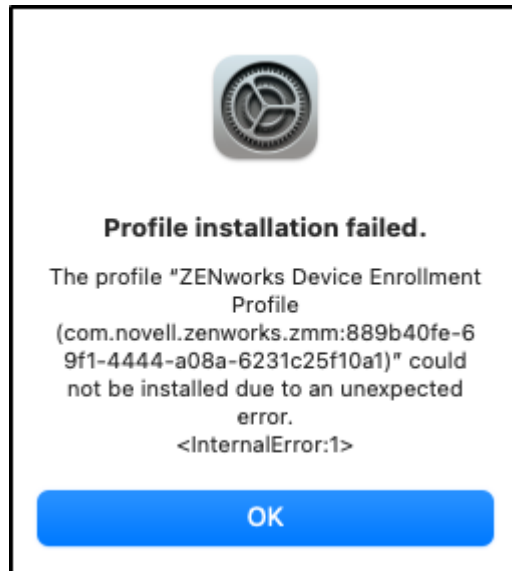
Prerequisites:

Task	Details
Enable Push Notifications	For more information, see Enabling Push Notifications
Configure MDM Servers and APNs	For more information, see MDM Servers and APNs Configuration

IMPORTANT:

- ♦ To enroll a Mac device as MDM via OTA Profile in ZENworks, the device should be pre-approved in ZENworks either with its Serial Number or Mac Address or both for authenticating the device. For more information, see [Adding Pre-approved Devices](#).
- ♦ If the device is not pre-approved, the following error will be displayed on the device.

Figure 4-1



- ♦ Pre-approval check will fail in case if the value is specified in the DNS Name device attribute and in the Device Matching Setting if both DNS Name and Enable Differentiation are selected.

- ♦ As part of the MDM Enrollment Profile, the consent text can be set which is displayed to the user on the Mac device during profile installation. You can modify the default consent text in `com.novell.zenworks.apple.plist.profileinfo.consent.text`

The file is available in the following location:

On Windows Server:

```
C:/Program Files/microfocus/zenworks/resources/properties/com/novell/zenworks/apple/plist/profileinfo/ios_profile_<Locale>.properties
```

On Linux Server:

```
/opt/microfocus/zenworks/resources/properties/com/novell/zenworks/apple/plist/profileinfo/ios_profile_<Locale>.properties
```

Restart the `microfocus-zenclient-mgmt` service after updating the consent text.

- ♦ Once the OTA profile enrolled, the following message is displayed:

"This Mac is supervised and managed by: IT Organization"

If you want to customize the organization before enrolling through OTA Profile, you should add a system variable in **Configuration > Device Management > System Variables** screen with value as "organization.name" (case-sensitive).

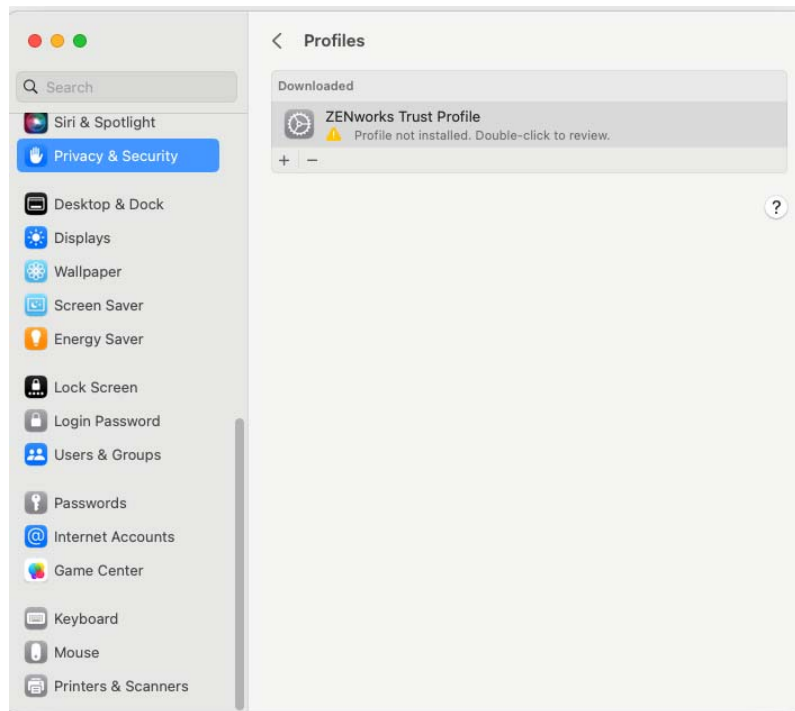
NOTE:

- ♦ The macOS devices running Macintosh 11.x (Big Sur) or later versions can be enrolled as supervised devices.
 - ♦ If the DNS attribute is selected to uniquely identify a pre-approved device, the Mac enrollment using the OTA profile might fail.
-

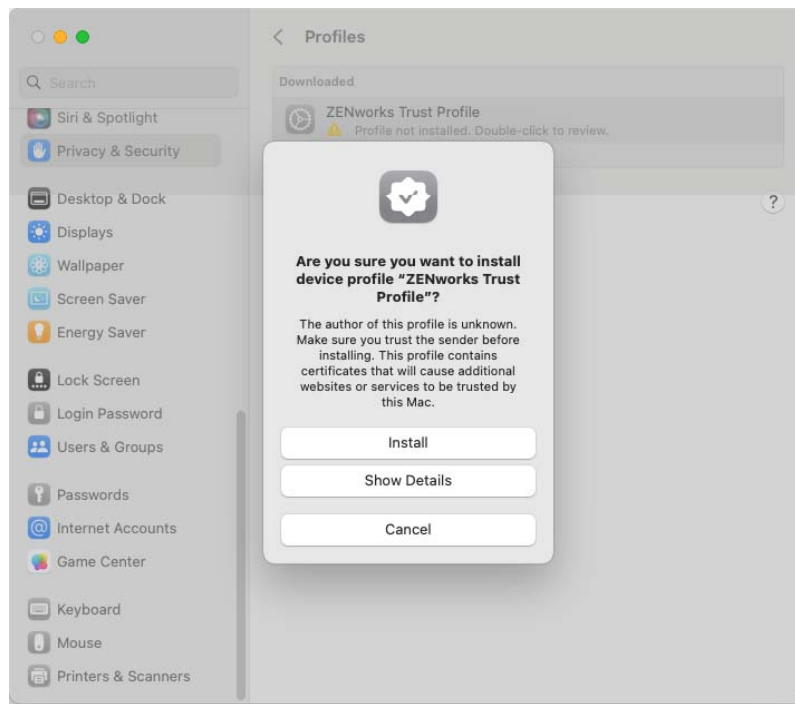
Procedure:

- 1 In the Safari browser on a Mac device, specify the URL to download the ZENworks Trust Profile. The URL should be specified in the following format, for example: `https://<ZENworks_server_address>/endpoint/apple/trust`
`ZENworks_server_address` is the DNS name or IP address of the ZENworks MDM Server.
- 2 Navigate to the **System Settings** menu on the device and select **Privacy & Security** > **Profiles**.
- 3 Click **ZENworks Trust Profile**.

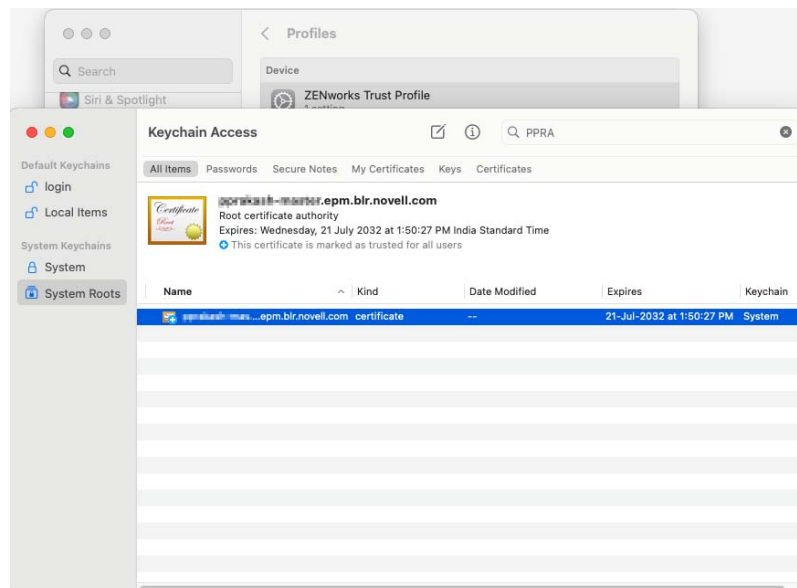
The ZENworks Trust Profile contains the certificate required for secure communication between the device and the ZENworks Server.



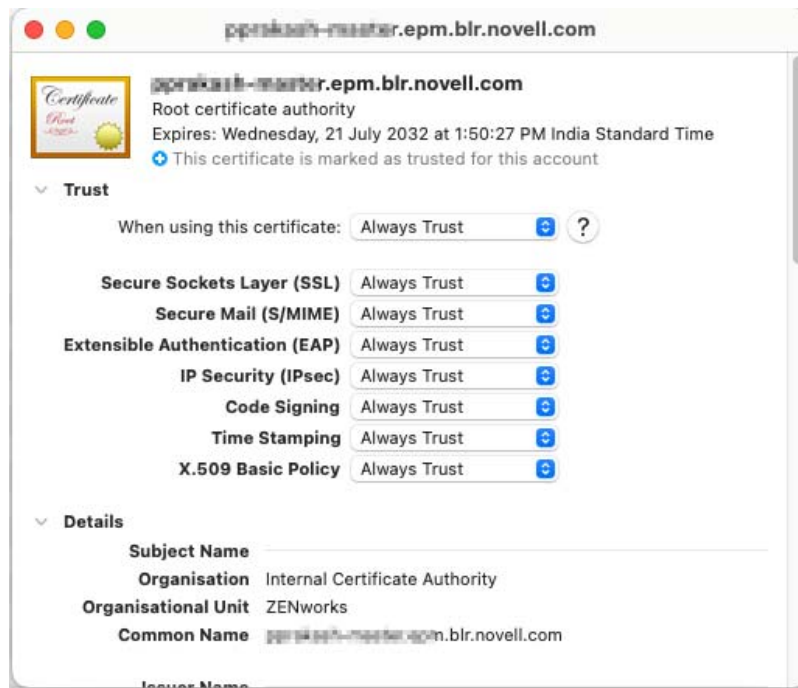
- 4 Double-click the profile and click **Install...**
- 5 Install the profile.



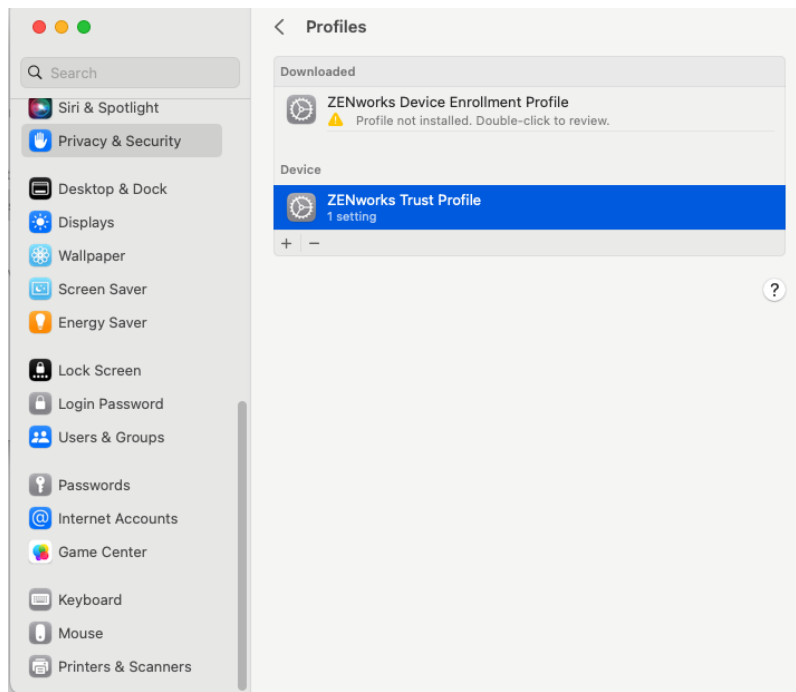
- 6 Specify the administrator password and click **OK**.
- 7 Enable the enrollment certificate on the device. To enable the certificate:
 - ♦ Navigate to **Keychain Access > System Roots > Certificates**.
 - ♦ Search for the ZENworks CA certificate and double-click the certificate.



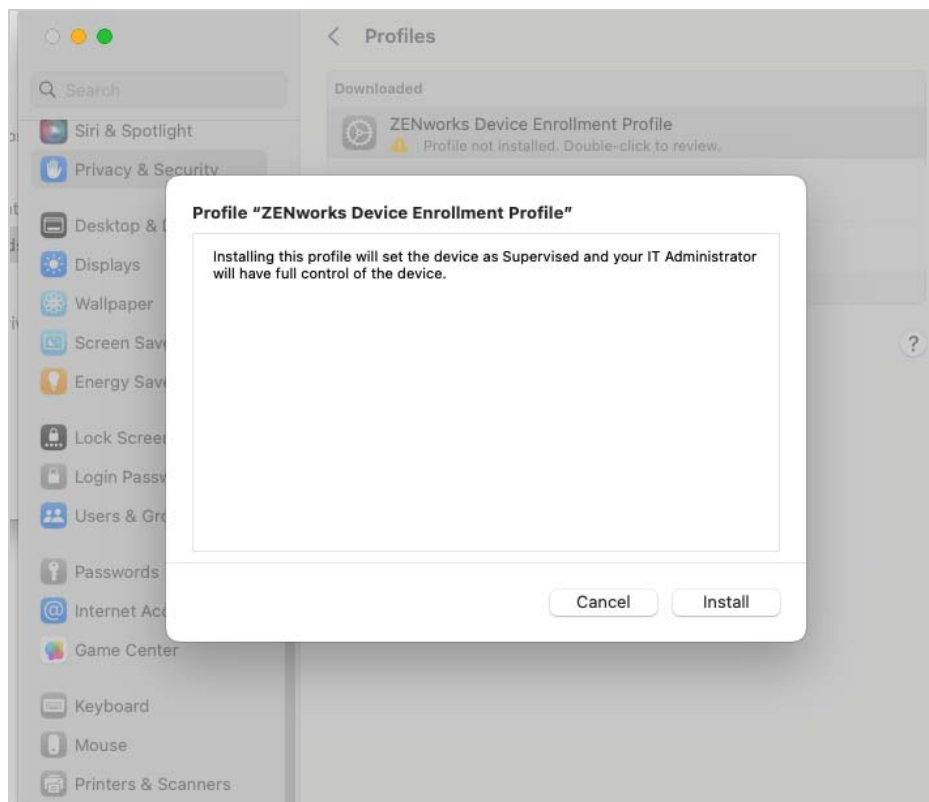
- ♦ Expand the **Trust** details.
- ♦ Select **Always Trust** from the **Secure Sockets Layer (SSL)** drop-down list.



- ◆ Click **Continue**.
 - ◆ Specify the administrator password and click **Update Settings**.
- 8 Next, in the Safari browser on a MAC device, enter `https://<ZENworks_server_address>/endpoint/apple/userlessOTAEnroll`, where `ZENworks_server_address` is the DNS name or IP address of the ZENworks MDM Server. The ZENworks Enrollment Profile will be downloaded.
 - 9 Navigate to **System Settings > Privacy & Security > Profiles**.
 - 10 Double-click **ZENworks Device Enrollment Profile**. The ZENworks Device Enrollment Profile contains the MDM profile required for ZENworks to manage the device.



- 11 Click **Install...** and follow the prompts to install the profile. Once the profile is successfully installed, the device will be supervised and managed by ZENworks.



- 12 Specify the administrator password and click **Enrol**.





Managing Mac Devices

This section provides information on all the administration tasks that can be performed related to the Mac MDM feature in ZENworks.

- ♦ [Chapter 5, “Viewing Device Information,” on page 27](#)
- ♦ [Chapter 6, “Viewing Device Status,” on page 29](#)
- ♦ [Chapter 7, “Creating the macOS MDM Bundle,” on page 31](#)
- ♦ [Chapter 8, “Refreshing a Device,” on page 35](#)
- ♦ [Chapter 9, “Account Configuration,” on page 37](#)
- ♦ [Chapter 10, “Managing the DEP Settings,” on page 39](#)
- ♦ [Chapter 11, “Unsupported Features,” on page 43](#)

5 Viewing Device Information

After a device is enrolled to the ZENworks Management Zone, you can view the details of your enrolled Mac MDM device in ZCC. To view this page:

1. Navigate to the **Devices** section in ZCC.
2. Click **Workstations**.
3. Click the relevant device.

The Device Information page displays the following details:





- ♦ **General Information:** Provides general information about the device such as the device manufacturer, the serial number and the GUID. This also displays information on the mode of enrollment and ownership type of the device (corporate). As soon as you enroll your device, the mode in which the device is enrolled is displayed on the Device Information page.

The screenshot shows the ZENworks Management Console interface. The left sidebar contains navigation options like Home, Deployment, Devices, Users, Policies, Bundles, Asset Management, Security, Subscribes and Share, Modern Management, Reports, Audit and Messages, Diagnostics, Configuration, Workstation Tasks, Assign Policy, Assign Bundle, Wake up Device, Refresh Workstation, Workstation Inventory Scan, Workstation Inventory Wizard, Add to Workstation Group, Acknowledge All Messages, Reboot/Shutdown Workstation, Launch Application on Workstation, and Run Script on Workstation. The main content area is titled 'General Details' for the device 'user's Mac mini'. It shows the following information:

- General Details:** Manufacturer: Apple, Serial number: C9703210049, GUID: 9F5A4A7F5B4E4B4D4F5B4E4B4D4F5B4E, Device ID: 186D0208-C4D7-18C7-8756-918F-0730C4B5, Current time zone: Not Available, Last boot time: May 22, 2023 03:22 PM (GMT+05:30), User enrolled: Not Available, Enrolled mode: macOS MDM + ZENAgent (highlighted with a red box), Ownership: Corporate.
- Network:** Bluetooth MAC: 52-9B-77-4D-1A-58, Wi-Fi MAC: 54-9B-77-4D-1A-58, IP Address: 10.10.10.10, Host Name: user's Mac mini.
- Operating System:** Platform: Mac, Version: 11.4, Build: 20F71, Language: English (India), Kernel version: Not Available, OS update: Not Available, Disk space available for OS update: N/A.
- Last Connections:** Last Contact: Jul 13, 2023 11:44 AM (GMT+05:30), Last Full Refresh: Jul 10, Reboot Pending Since: Unavailable, Network Location: Unavailable since Jul 7, Network Environment: Unavailable, ZENworks Agent Version: 23.3.0.119, ZENworks Agent Status: Not Available.
- Administration:** Administrative owner: Not Available, No. of devices: 1, Device added On: Jul 7, 2023, Enrolled MDM Server: Not Available, Department: Not Available, Site: Not Available, Location: Not Available.
- Device Capacity:** 225 GB used, 1% free of 228 GB.









The various enrollment modes are as follows:

- ♦ **macOS MDM + ZENAgent:** Indicates that as a part of full management of a Mac device, the device is enrolled via the MDM, and the ZENAgent is installed on the Mac device. After the device reconciles the enrollment mode is displayed as macOS MDM + ZENAgent.
- ♦ **macOS MDM:** Indicates that as a part of full management of a Mac device, the device is enrolled via the MDM.
- ♦ **Network:** Displays network information such as the Wi-Fi MAC address and the IP address.
- ♦ **Operating System:** Displays information on the Operating System installed on the device.
- ♦ **Last Connections:** Shows when the device was last connected with the ZENworks system.
- ♦ **Administration:** This section displays the following information. Click **Edit** to change the information in any of the fields.
 - ♦ **Administrative Owner:** Indicates the administrator of the device.

- ♦ **Test Device:** Indicates if the device is a test device. If the device is not a test device, you can click **Set** to set the device as a test device. If the device is a test device, you can click **Reset** to reset the device to a non-test device.
- ♦ **Enrolled MDM Server:** Indicates the MDM Server to which the device is enrolled.
- ♦ **Department:** Indicates the department to which the device belongs.
- ♦ **Site:** Indicates the site to which the department belongs.
- ♦ **Location:** Indicates the location of the department.
- ♦ **ZENworks Agent Details:**
 - ♦ **Last Contact:** Displays the last time the agent contacted the ZENworks Server.
 - ♦ **Last Full Refresh:** Displays the last time that the device refreshed its information (bundles, policies, configuration information, registration information, and so forth). A refresh can be manually initiated by the device's user, manually initiated by an administrator using the Refresh Device Quick Task or scheduled. The refresh schedule is determined by the Device Refresh Schedule configuration setting available on devices, device folders, and the Management Zone.
 - ♦ **Reboot Pending Since:** Displays the date and time since when the device reboot is pending. This field will be displayed only when you have postponed the device reboot after applying a patch, update, or any other action that requires a device reboot. The value will be unavailable if the server reboot is already completed, if the server is at ZENworks 2020 Update 2 or lower versions, or if the server OS is Linux or Macintosh.
 - ♦ **Network Location:** Displays the network location name to which the device was connected. Along with the name, time and date of connection will also be displayed. The value will be unavailable if the server is at ZENworks 2020 Update 2 or lower versions.
 - ♦ **Network Environments:** Displays the name of the network environment.
 - ♦ **ZENworks Agent Version:** Displays the version of the ZENworks Agent software on the device. Click View to display a list of the ZENworks Agent modules that are installed on the device along with their version numbers.
 - ♦ **ZENworks Agent Status:** Monitors and displays the status of the ZENworks Updater Service (ZeUS) and the ZENworks Agent. It might take a while for the status to be displayed.
 - ♦  Indicates that both ZeUS and ZENworks Agent are reachable.
 - ♦  Indicates that ZeUS is up but the ZENworks Agent is not reachable.
 - ♦  Indicates that ZeUS is not reachable.
 - ♦  Unknown; indicates that status determination is in progress

6 Viewing Device Status

The following icons give a quick indication of the status of the device. To view the status, click **Devices** on the left navigation pane of ZENworks Control Center and click **Workstations**. The status icons that appear beside a device indicate the following:

-  - No warning or error messages;
-  - Warning messages;
-  - Error messages;
-  - No warning or error messages, bundle or policy assignment has failed.
-  - Warning messages, bundle or policy assignment has failed.
-  - Error messages; bundle or policy assignment has failed.
-  - Retired device; inventory information is retained, but no policies or bundles are applied
-  - Enrollment Pending; device object has been created in the ZENworks Management Zone and is waiting for enrollment to be completed on the device.

You can get more information about the warning and error messages by clicking the device and viewing the **Message Log** by navigating to the **Events and Logs** tab. You can get more information about the bundle and policy status by clicking the device name and viewing the bundle or policy information on the device's Relationship page.

7 Creating the macOS MDM Bundle

7.1 macOS MDM Configuration Profile and Commands

Configuration Profiles

Configuration profiles are XML files consisting of payloads that will enable you to deploy configuration settings and restrictions to Mac MDM devices. These XML files are exported from Apple Configurator and each individual configuration setting, such as the Wi-Fi configuration setting, VPN configuration setting, and certificate information, are called payloads. Using an configuration profile, you can deploy these configuration settings or restrictions, which are not available in ZENWorks, to the devices. While creating an macOS MDM profile bundle, the XML file that is obtained from Apple Configurator is uploaded in ZENworks. When you assign this bundle to a device, on deployment of the macOS MDM profile bundle, the encrypted version of the profile is installed on the device, thereby restricting users from changing the setting.

Configuration Commands

A configuration command is an instruction that is sent remotely to a device to perform a specific action or configuration at a time. The configuration command is an XML file that can be created using either manually or automatically using Apple Configurator. When you upload the configuration command file to ZENworks by creating an macOS MDM bundle and assign the bundle to the device, it allows for real-time control and execution of tasks on devices.

To create a command manually,

- Identify the specific payload types and settings you wish to include in the command. For more information on supported commands, see [Commands and Queries \(https://developer.apple.com/documentation/devicemanagement/commands_and_queries?language=objc\)](https://developer.apple.com/documentation/devicemanagement/commands_and_queries?language=objc) in Apple documentation.
- Using a text editor or an XML editor, create an XML configuration file that conforms to the structure and syntax specified in the Apple Configuration Profile Reference documentation. The XML file should include the necessary keys, values, and payload types based on the settings you want to configure. An example of the Restart Device command is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
    <key>Command</key>
    <dict>
        <key>RequestType</key>
        <string>RestartDevice</string>
    </dict>
    <key>CommandUUID</key>
```

```
<string>0001_RestartDevice</string>
</dict>
</plist>
```

- ♦ Test and validate the XML file for correctness and compliance with Apple's requirements. Apple provides a Profile Manager Validation Tool, available in Xcode, to help validate the XML configuration file. Ensure that the profile is error-free and adheres to the specifications.

To automatically create a command on Apple Configuration, see the Apple Configurator User Guide.

Procedure

- 1 In ZENworks Control Center, click the **Bundles** tab.
- 2 In the **Bundle** list, click **New**, then click **Bundle** to display the Select Bundle Type page.
- 3 Select **macOS MDM Bundle**, then click **Next** to display the Select Bundle Category page.
- 4 Select the **macOS Profile** bundle category.
- 5 Click **Next** to display the Define Details page, then fill in the fields:
- 6 On the Define Details page, specify a name for the bundle, select the folder in which to place the bundle, then click **Next**.
- 7 On the Select Profile Type page, select from one of the following **Configuration Profile** to deploy to macOS MDM device:
 - ♦ **Configuration Profile:** Select a Configuration Profile consisting of payloads that will enable you to deploy configuration settings and commands.

NOTE: In ZENworks 23.3, the Provisioning Profile type is not supported when creating the macOS MDM bundle.

- 8 Based on the option selected in the previous page, browse and upload a configuration profile or command on the Import Configuration Profile/Command page.

IMPORTANT: Currently, you can configure profiles and commands only for device channels and not for user channels.

- 9 Review the information, making any changes to the bundle settings by using the **Back** button as necessary.
- 10 Click **Finish** to create the bundle as configured per settings.

For information on the viewing the bundle information, see [Viewing the Bundle Information](#).

When you create a bundle, the bundle is listed on the Bundles page of the ZENworks Control Center. For more information on the created bundle, review the following sections:

- ♦ [Understanding the Bundle Page](#)
- ♦ [Bundle Summary Page](#)

After the macOS bundle is created, bundle is assigned to devices, device groups, or device folders and the summary of bundle assignment and distribution is displayed on the Bundle Dashboard page. You can continue to assign this bundle to an Mac device. For more information, see [Assigning Bundles](#).

NOTE: For macOS MDM bundle, the user assignment is not supported.

After enforcing the profile on the device, on your Mac device, go to **System Settings > Privacy & Security > Profiles**.

The profile you have assigned from ZENworks will be available. You can double-click the profile to view the restrictions and configurations that are applied to the device.

8 Refreshing a Device

A device refresh can be initiated in the following ways:

- ♦ **Scheduled Refresh**
- ♦ **Manually Triggered Refresh**
 - ♦ Quick Task Refresh initiated by the Administrator.
- ♦ [“Initiating a Scheduled Refresh” on page 35](#)
- ♦ [“Manually Triggered Refresh” on page 36](#)

Initiating a Scheduled Refresh

The Device Refresh schedule lets you define how often a device contacts the ZENworks Server to update information such as policies and bundles.

During a scheduled device refresh, data from the ZENworks Server cache is read and delivered to the device. Therefore, if an action is assigned to a device you need to wait until the server cache is updated with the assignment, which is determined by the value specified in **Assignment Optimization Settings**. For more information on **Assignment Optimization Settings**, see [Infrastructure Management Settings](#) in [ZENworks Management Zone Settings Reference](#).

This schedule can be defined at three levels:

Management Zone: The schedule is inherited by all device folders and devices. To configure this setting, navigate to **Configuration > Management Zone Settings > Device Management > Device Refresh and Removal Schedule**.

Device Folder: The schedule is inherited by all devices contained within the folder or its subfolders. Overrides the Management Zone refresh schedule. To configure this setting, navigate to **Devices > <Folder (Details)> > Settings > Device Management > Device Refresh and Removal Schedule**.

Device: The schedule applies only to the device for which it is configured. Overrides the refresh schedules set at the Management Zone and folder levels. To configure this setting, navigate to **Devices > <Select a Device> > Settings > Device Management > Device Refresh and Removal Schedule**.

NOTE: ♦ If you are configuring this setting at a Device Folder or at Device level, then you need to click **Override** or else the default setting will apply.

- ♦ The macOS MDM devices are excluded from the Server/Workstation Removal Schedule.
 - ♦ Manual Refresh and Partial Refresh does not update the bundle information.
 - ♦ The full refresh schedule defines how often you want a device to update all of its information (bundle, registration) from the ZENworks Server.
 - ♦ Full Refresh schedule' for macOS MDM bundle
-

Timed Refresh

This option ensures that for multiple devices that have the same refresh schedule, the ZENworks Server does not initiate their refresh at the same time. The default value is 120 minutes and the minimum value that you need to set is 60 minutes. For example, if you have 1000 devices with the same refresh schedule, you might overburden your ZENworks Server. By selecting this option, the server waits a randomly generated amount of time before initiating the refresh on these devices.

To define the refresh schedule, fill in the following fields and click **Apply** to save the settings:

Days, Hours, Minutes: Specifies the maximum amount of time within which the devices should refresh. For example, to set the refresh time as 8.5 hours, you would specify 0 Days, 8 Hours, 30 Minutes.

Manually Triggered Refresh


If you do not want to specify a refresh schedule, then select **Manual Refresh** on the Device Refresh and Removal Schedule page (**Configuration > Device Management > Device Refresh and Removal Schedule**). This option lets users manually initiate a refresh. Manual refresh can be initiated by:

- ♦ Using the Refresh Device quick task.
- ♦ Using the Refresh icon on the ZENworks Agent App or the ZENworks User Portal.

During a device refresh initiated manually, ZENworks bypasses the server cache and it retrieves the latest updates and send these updates to the devices.

Refresh Device Quick Task

You can initiate a device refresh through a ZENworks Control Center quick task. The quick task sends a synchronization request to the device. When the device connects to the ZENworks Primary Server, it uploads updated device information and receives configuration changes (for example, policy changes) that have not already been sent to the device. This quick task is applicable for Mac devices that are enrolled as fully managed devices in the management zone.

- 1 In ZENworks Control Center, click **Devices > Workstations** to display your enrolled devices.
- 2 Select the check box in front of the Mac device you want to refresh, click **Quick Tasks > Refresh Device** to display the Refresh Device quick task.
- 3 Retain the default values of the quick task options and click **Start** to initiate the device refresh.
- 4 Click **Hide** to close the quick task, after the quick task is initiated.
- 5 Click  in the upper-right corner of the **Devices** list to refresh the list.

The device's Last Contact time is updated to show the refresh time.

- 6 (Optional) Click the device to show its properties, then review the Device Information page for any updated device information. For more information, see [Chapter 5, "Viewing Device Information," on page 27](#).

9 Account Configuration

This page provides information about configuring the administrator and primary user accounts created on Mac devices during the DEP enrollment.

NOTE: ♦It is mandatory to create at least one administrator account when configuring Mac MDM. The administrator account is used to manage the device and its settings.

- ♦ If both the administrator and the primary user accounts are not configured, then the user will be prompted to create an administrator account.
 - ♦ It is recommended to configure a unique primary user account against each discovered device as this name is used to configure the hostname of the device.
-

Table 9-1

Setting	Description
Create Admin Account	Select Yes to create an administrator account on the macOS device.
Hide Account from end user	Select Yes to hide the admin account on the macOS device to non-administrator accounts. Hidden accounts are not visible in the Login Window to end-users. Select No to make the admin account visible when a user logs in.
Admin Account Display Name	Enter the full name for the admin account. This name is displayed when logging on to the device.
Admin Account Short Name	Enter the short name for the admin account. The short name is used to create the user's Home folder.
Admin Account Password	Specify the password for the admin account. The admin account password should not be more than 80 characters.

Setting	Description
Primary User Account	<p>The primary user account provides access to a local user on the macOS device.</p> <p>Choose any of the following options:</p> <ul style="list-style-type: none"> ♦ Don't create the account: Select this option if you do not want to create a primary user account. ♦ Create as Local User: Select this option to create a local user account. This option is displayed only when the Create Admin Account is set to Yes. ♦ Create as Local Admin: Select this option to create an account for the primary user with administrator privileges.
User Information	<p>Choose any of the following options:</p> <ul style="list-style-type: none"> ♦ Not pre-populated: The end user should specify the display name, short name, and password. The values are not pre-populated. ♦ Pre-populated and Editable by end user: The display name and short name is displayed, and the end user can modify the details if required. ♦ Pre-populated and non-Editable by end user: The primary user account is created with the specified User Account Display Name, User Account Short Name, and User Account Password. The end user cannot modify these values. ♦ Pre-populated, Non-editable and Reserved for end user: Only the Reserved user of the discovered device can configure the User Account Display Name and User Account Short Name. The reserved user's full name is used as display name and Reserved user's login name is used as short name. <p>NOTE: Ensure that the Reserved User is available for the DEP device. If the Reserved user is not available, account configuration will fail.</p>
User Account Display Name	Enter the full name for the primary account. This name is displayed when logging on to the device.
User Account Short Name	Enter the short name for the primary account. The short name is used to create the user's Home folder.
User Account Short Name	Specify the password for the primary account. The primary account password should not be more than 80 characters.

10 Managing the DEP Settings

The settings that govern the enrollment process of a DEP enabled device is known as the DEP settings. The DEP settings in ZCC is segregated as:

- ♦ **General and Skip Item Settings:** Lets you modify the initial setup process of the device. For more information, see [“General and Skip Setup Item Settings” on page 39](#).

The DEP settings with default values is assigned to the **Apple DEP Devices** folder (**Devices > Discovered**). ZENworks lets you modify this DEP settings as per the needs of the organization. The settings can be modified at the folder level or for a specific device. The modified DEP settings will be applied on only those devices that are to be newly enrolled or are reset to their factory settings.

The updated settings is assigned to the devices in the Apple portal. Before the users begin enrolling their devices, ensure that the modified DEP settings is successfully assigned to the device in the Apple portal. View the **Assignment Status** of the device by navigating to **Devices > Discovered > Apple DEP Devices**.

NOTE: Ensure that you do not modify the settings while the users are enrolling their devices.

To edit the DEP settings at **Apple DEP Devices** folder level,

- ♦ Navigate to **Devices > Discovered**. Click **Settings** next to the **Apple DEP Devices** folder.

General and Skip Setup Item Settings

The General and Skip Setup Item Settings page consists of the following panels:

[General](#)

[Skip Setup Items](#)

- ♦ [Skip Setup Items - Mac](#)

General

This page lets you modify the DEP settings to enhance the enrollment process. You can modify the settings at the device folder level or for a specific device. The modified settings are applicable for devices that are to be newly enrolled or are reset to their factory settings.

The general profile settings are as follows:

- ♦ **Allow pairing of devices with a host computer:** Enables the user to pair a device. If set to **Yes** then the device can pair with any device. If set to **No**, then the device can pair with only those host devices that have their certificate configured in the DEP settings.
- ♦ **Set device as supervised:** Enables supervision of devices.

- ♦ **Allow user to remove the MDM profile from the device:** Enables the user to remove the configured MDM profile. This setting is enabled if the device is set as Supervised.

NOTE: If the device is not Supervised, then the user has the option to remove the MDM profile. If the device is Supervised, it is recommended that you do not enable this setting, as devices cannot be managed if the MDM profile is removed.

- ♦ **Allow user to skip applying the MDM profile on the device:** Enables the user to skip enrollment of the device with the MDM Server.
- ♦ **Specify the support phone number displayed during enrollment:** Displays the defined customer support phone number on the device.
- ♦ **Specify the support email address displayed during enrollment:** Displays the defined customer support email address on the device.
- ♦ **Specify the department name displayed during enrollment:** Displays the defined department or location name on the device.
- ♦ **Specify the default language to be selected during enrollment:** The specified language will be automatically selected during the enrollment of the device. You need to specify the language in either the two-letter ISO 639-1 format or the three-letter ISO 639-2 format. An example of these formats are as follows:

Language	ISO 639-1	ISO 639-2
English	en	eng
French	fr	fre
German	de	ger

For more information, see http://www.loc.gov/standards/iso639-2/php/English_list.php.

- ♦ **Specify the default region to be selected during enrollment:** The specified region will be automatically selected during the enrollment of the device. You need to specify the region in the two-letter ISO 3166-1 format, which is the capitalized region code representing a country. An example of this format is as follows:

Region	ISO 3166-1
United States	US
United Kingdom	UK
Australian	AU

For more information, see <https://www.iso.org/obp/ui/#search>.

Skip Setup Items

Skip Setup Items allow you to skip certain setup steps or configuration options during the initial device setup process. This helps streamline the setup process and ensures devices are quickly ready for deployment. This can even be configured if you want to prevent users from making changes to their devices during setup.

This page consists of the following panels:

- ♦ [Skip Setup Items - Mac](#)

Skip Setup Items - Mac

If selected, the following screens related to initial configuration settings are skipped:

NOTE: The skip settings seen on the Mac devices during ADE enrollment might vary depending on the architecture and the macOS version.

Select **Auto Advance** to skip the setup assistance panes during the initial setup of Mac. This feature is available for devices that are managed by MDM. It does not require any user interaction and allows automated setups.

Select **Select All** to skip the setup panes. This feature may still require user intervention.

- ♦ The **Location Services** screen, which helps in determining the user's current location.
- ♦ The **Restore apps and data** options screen, which enables the user to restore data from backup.
- ♦ The **Apple ID** screen, which enables the user to specify the Apple ID.
- ♦ The **Terms and Conditions** screen. If this option is selected, these Terms and Conditions are automatically accepted by the device.
- ♦ The **Touch ID/Face ID** screen, which enables the user to use biometrics to unlock the device or authenticate to apps.
- ♦ The **Apple Pay** setup screen, which enables the user to make digital payments.
- ♦ The **Siri** screen, which enables the user to setup Siri.
- ♦ The **Diagnostics** screen, which enables the user to send diagnostic data to Apple.
- ♦ The **Display Tone** options screen, which enables the user to adjust the white balance on the device display.
- ♦ The **Privacy** screen that controls which apps can access information stored on the device.
- ♦ The **Screen Time** screen, which provides information on the time spent by users on their devices.
- ♦ The **Appearance** screen, which enables users to access the Choose your Look screen.
- ♦ The **Accessibility** screen, which skips the Accessibility pane, only if the Mac is connected to Ethernet and the cloud config is downloaded.
- ♦ The **App Store** screen, which enables users to skip the App Store pane.
- ♦ The **FileVault** screen, disables FileVault Setup Assistant screen in macOS.
- ♦ The **iCloud Diagnostics** screen, which enables users to skip to iCloud Analytics screen.

- ♦ The **iCloud Storage** screen, which enabled users to skip iCloud Documents and Desktop screen in macOS.
- ♦ The **Unlock With Watch** screen, which enabled users to skip Unlock Your Mac with your Apple Watch pane.

11 Unsupported Features

The following Mac MDM features are not supported in ZENworks 23.3. These features would be included in the upcoming release.

- ♦ During enrollment of Mac MDM devices, the registration rules will not be honored.
- ♦ For Mac MDM devices, only the Refresh QuickTask is supported.
- ♦ Purchase and distribution of Apple Volume Purchase Program (VPP) apps is not supported.
- ♦ Post a CA remind, Mac MDM devices will not be able to communicate with the server. You should re-enroll the device after a CA remind to enable the Mac MDM device to communicate with the server.
- ♦ Retiring of devices is not supported.
- ♦ Unenrollment of Mac MDM devices from the ZENworks Server.

A Troubleshooting Scenarios

The following sections provide solutions to the problems you might encounter with Mac Devices:

A.1 Devices respond as NotNow when a Mac device is locked

When a schedule sync is attempted on Mac devices, a device may not execute commands, but instead respond with a `NotNow` status during these conditions:

- ♦ The device is running on battery power in Power Nap and the server sends any command other than `DeleteUserCommand`, `DeviceLockCommand`, `EraseDeviceCommand`, `RestartDeviceCommand`, `ShutDownDeviceCommand`, `UserListCommand`, `ActivationLockBypassCodeCommand`, `ClearActivationLockBypassCodeCommand`, or `UnlockUserAccountCommand`.
- ♦ The server sends an `InstallProfile` or `RemoveProfile` command on the user connection and the user's keychain is locked.
- ♦ The device is blocking the user's login while it contacts the server and the server sends a request that can take a long time to process; for example, `InstalledApplicationList`.

Workaround: The commands will be executed when the device reaches the server once the device is unlocked (No manual step will be required by the administrator).

