Systems Manager Agent and MDM Profile Enrollment

Because Systems Manager supports so many different operating systems, there are a few primary enrollment methods to add management capability to your devices. This guide will cover the two primary aspects of management, agent installs and enrollment profiles, and the features associated with each of them.

For detailed instructions on how to enroll a particular device type, see this article.

What are the Meraki Agent and MDM Profiles?

The MDM enrollment profile provides most of the management functionality on devices, such as restrictions or live tools like sending notifications and remote reboot commands. These profiles exist as configurations on the device's operating system, using the vendor's native APIs, and are provisioned during the enrollment process. You can see examples of where the profile can be found on each device type in this article.

Although MDM profiles are used for most platforms, desktop versions of Windows and macOS support installing an agent as well. The Meraki agent installs like an application and runs as a service in the background of your enrolled Windows/Mac machine. The agent provides additional functionality, such as custom software deployment and remote desktop. The agent and profile are not mutually exclusive, you can enroll a device using either method or with both.

We typically recommend enrolling with both methods for full Systems Manager functionality.

Operating System Compatibility

<table>
<thead>
<tr>
<th></th>
<th>Agent</th>
<th>MDM Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>macOS</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>iOS</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Android</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Windows 10</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Windows 8*</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Windows 7*</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>
**Windows Phone 10**

* Windows 7 and 8 natively do not support MDM enrollment profiles, and can only be managed via the SM agent. Microsoft began implementing MDM support with Windows 10.

**Chrome OS**

** Chrome OS technically does not run an agent or install a profile, and connects via Google's APIs for management. See here.

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### How to Enroll

Enrollment instructions can be found in the Meraki Dashboard under **Systems Manager > Manage > Add Devices**. You can also find guides on how to enroll every operating system for a detailed breakdown.

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### Auto-installing the macOS Agent

The macOS agent can be pushed down as an application to Mac devices that have gone through profile enrollment. This can help streamline the enrollment process of macOS devices, ensuring that both profile and agent are installed without needing to manually run the .pkg on devices. The agent can be added **Systems Manager > Manage > Apps > + Add new** and scoped to all devices, or via tags. Once configured, devices enrolling through DEP can automatically install the agent if within the specified scope.

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### Agent vs Profile Features

The agent and profile each enable different sets of features on your devices. For full functionality on Windows 10 desktops and macOS devices, we recommend enrolling through both methods whenever possible. Most notably, Microsoft did NOT build MDM profile support for Windows 7 and 8, which means it is not possible to distribute settings like wireless configs to those devices.

The key differences: software installer (macOS/Windows Custom Apps) and remote desktop require the agent to be installed, and installing MDM profiles (wireless, VPN settings, etc.) or Store Apps (macOS) require the management profile. See a full comparison of features, including various MDM commands below.

<table>
<thead>
<tr>
<th></th>
<th>Windows Profile</th>
<th>Windows Agent</th>
<th>macOS or iOS (DEP) Profile</th>
<th>macOS Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push MDM profiles</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Lock Device</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Selective Wipe

Erase Device

Fetch process list

Command line

Network stats

Screenshot

Remote Desktop

Power Control

Install Software Binaries

Install OS updates

Activation Lock/Bypass

* Installing OS updates on iOS requires **DEP supervision** specifically, and will not work with Apple Configurator supervision.

** Filetypes are OS Specific: Windows may install .exe or .msi files, macOS may install .pkg or .app encapsulated inside a .dmg image.
Checking Enrollment Status on Dashboard

For Windows desktop and macOS devices, there are a few ways to check whether a device has the management profile installed, agent installed, or both.

Client Details

After selecting a client, scroll down to the 'Online status' section. A device with the agent installed will show 'Last online' here. A device with the management profile installed will show "Last check-in". Devices enrolled through both methods will show both lines, as in the below image.

You can also tell how a device was enrolled based on the MDM commands available. With just the management profile installed, you'll see:

MDM commands

With both the profile and agent installed, you'll see:

Live tools
Clients List

On the Systems manager > Clients page, click the ‘+’ sign at the top right, and add the ‘Managed?’ column to the table. Devices that are enrolled with ‘Managed? No’ are enrolled through the agent, and do not have a management profile installed.

Checking for Management Profile on Devices

iOS

For iOS, the enrollment profile is stored in Settings > General > Profiles & Device Management > Meraki Management.
In addition to the Meraki Management enrollment profile, you can also add the Meraki Systems Manager app to iOS, which allows some additional features to be enabled, including Backpack, GPS tracking, Push Notifications, and much more.
macOS

For macOS, the enrollment profile is stored in System Preferences > Profiles > Meraki Management.

Android

For Android, the enrollment profile can be viewed in the Meraki Systems Manager app on the Configuration page.
For Windows 10, the enrollment profile is stored in Settings > Accounts > Work Access.
Connect to work or school

Gain access to your organization’s resources (things like apps, the network, and email) by choosing one of the two options below. When you connect, your work or school might enforce certain policies on your device.

Sign in to Azure AD

Select this option if you use Office 365 or other business services from Microsoft. Follow the link below to go to your account page, then select Add a work or school account again and provide your info. (If that option isn’t available, you’re already signed in.)

Add a work or school account

Enroll in to device management

Select this option if your support person told you to enroll in to device management (MDM).

Windows Phone 10

For Windows Phone 10, the enrollment profile is stored in Settings > Accounts > Work Access.
Checking for the Agent on Devices

The agent is a process that will be running in the background on macOS and Windows 7, Windows 8, and Windows 10.

To confirm that the agent is running on macOS and view the Meraki agent’s log file, run the following command in Terminal:

```
tail -f /var/log/m_agent.log
```
If you see logging information being generated for today's date, your Meraki agent is currently running!

To confirm that the agent is running on Windows 10, Windows 8, or Windows 7, view the Meraki agent's log file by opening m_agent_service in this directory:

C:\Windows\Temp\m_agent_service

If you see logging information generated for today's date, your Meraki agent is currently running!

For extra Windows agent running confirmation you can also find the m_agent_service running with the Task Manager:
What about Chrome OS?

Chromebooks are enrolled through the Google Admin Console with API access enabled. If you are interested in managing your Chrome OS devices, please view our [documentation on enrolling Chrome OS into Meraki Systems Manager](https://meraki.com/support/docs/enrollment/).