VMware AirWatch Windows 7 Platform Guide

Deploying and managing Windows 7 devices.

Workspace ONE UEM v9.6

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Chapter 1:
Introduction to Windows 7

Workspace ONE UEM provides you with a robust set of mobility management solutions for enrolling, securing, configuring, and managing your Windows 7 device deployment. Use Workspace ONE UEM to ensure that your device fleet remains secured.

Through the Workspace ONE UEM console, you have several tools and features for managing the entire lifecycle of corporate and employee-owned devices. You can also enable end users to perform tasks themselves, for example, through the Self-Service Portal and user self-enrollment, which saves you vital time and resources. Workspace ONE UEM provides complete management solutions for enterprise-managed Windows laptop devices running Windows 7, 8, and 10.

Workspace ONE UEM allows you to enroll both corporate and employee-owned devices to configure and secure your enterprise data and content. By using of our device profiles, you can properly configure and secure your Windows devices.

Windows 7 Requirements

Before reading this guide, gather and prepare the requirements Workspace ONE UEM requires for Windows 7 devices.

Platforms Supported

Windows 7 interchangeably refers to the following supported Windows Operating Systems.

Microsoft Windows	
Operating System	
32-bit	Windows 7, Windows 8, or Windows 10
64-bit	Windows 7, Windows 8, or Windows 10

Silent Enrollment Agent Requirements

Win32Agent_installer.exe file version 3.8.2 to 6.0.4 or AirwatchAgent.msi version 7.0.0 or later must be downloaded or accessible to the Windows device.

Encryption

- **Supported OS:** Windows 7 Enterprise and Ultimate, 32-bit or 64-bit with .NET 4.5 framework.
- **Levels of Encryption:** System partition and complete hard disk.
- **Default Encryption Type:** BitLocker native encryption.

Enrollment Requirements for All Windows 7 Devices

- **Enrollment URL** – The web address entered into the Internet browser to begin the enrollment procedure. This location is specific to your company's enrollment environment.
- **Group ID** – The unique identifier specific to the organization group within the environment which defines all configurations that devices receive.
- **Credentials** – The username and password used to authenticate the end-user's account and to access the Workspace ONE UEM environment. These credentials can be identical to the end-user's directory services credentials or specific to Workspace ONE UEM.
- **Local Administrator Privileges** – End users must have Admin Rights or be part of the Administrator Group to properly run the AirWatch Agent EXE on their device.

AirWatch Unified Agent Prerequisites

Before using the AirWatch Unified Agent for Windows 7, you must download the following:

- Microsoft Visual C++ 2015 Redistributable (x86)
- Microsoft Visual C++ 2015 Redistributable (x64)

If you do not have .NET 4.5 or above installed before beginning the device enrollment process, the AirWatch Unified Agent prompts you to install it before continuing enrollment.

Chapter 2:
Windows 7 Enrollment Overview

Device enrollment establishes the initial communication with Workspace ONE UEM to enable Mobile Device Management (MDM). Windows 7 requires the AirWatch Unified Agent for Windows devices to enroll.

Enrollment Basics

Windows 7 must begin communicating with Workspace ONE UEM to access internal content and features. This communication uses the AirWatch Unified Agent. The AirWatch Unified Agent provides a single resource to enroll a device and provides device details.

The Windows 7 enrollment methods all use the AirWatch Unified Agent to complete enrollment. End users enroll using the AirWatch Unified Agent enrollment flow. You can also enroll devices using the silent enrollment or device imaging enrollment.

The Windows 7 platform supports Windows 7, Windows 8.1, and Windows 10 devices. The functionality changes when enrolling devices as Windows 7 devices. For more information, see Windows Desktop and Windows 7 Devices on page 7.

AirWatch Unified Agent Enrollment

The simplest enrollment workflow uses the AirWatch Unified Agent for Windows to enroll devices. End users simply download the AirWatch Unified Agent from www.awagent.com and follow the prompts to enroll. For more information on Agent-based enrollment, see AirWatch Unified Agent for Windows Enrollment on page 7.

If you use a proxy server, you must configure the AirWatch Unified Agent proxy settings. For more information, see Enroll Windows 7 Devices Through a Proxy on page 9.

Silent Enrollment

You can bypass end-user interaction and simplify enrollment using the silent enrollment work flow. This enrollment method uses BAT files and command-line entries to download and configure the AirWatch Unified Agent and complete enrollment. For more information, see Windows 7 Silent Enrollment on page 10.

Device Imaging Enrollment

If you are imaging Windows 7 devices, you can download and configure the AirWatch Unified Agent onto the base operating system image. With this enrollment method, you can ship devices to end users with the AirWatch Unified Agent preinstalled, only requiring the end users to enter their user credentials. For more information, see Install the AirWatch Unified Agent on a Base Operating System Image on page 8.

Windows Desktop and Windows 7 Devices

You can enroll your Windows devices into one of two platforms. The platform determines the available device management functionality for your Windows devices.

The Windows Desktop platform supports Windows 8.1 and Windows 10 devices using the native MDM enrollment. The Windows 7 platform supports Windows 7, Windows 8, and Windows 10 devices enrolled using the AirWatch Unified Agent for Windows.

The table shows the differences in enrollment methods. Consider enrolling Windows 8 and Windows 10 devices as Windows Desktop devices because of the increased device management functionality.

Functionality	Windows 7	Windows Desktop
Native MDM Enrollment Method		✓
AirWatch Agent Enrollment	✓	✓
AirWatch Protection Agent Support	✓	✓
Supports Full Windows 10 functionality		✓
Supports SCCM Managed Devices	✓	✓
Supports Windows 7 Devices	✓	

AirWatch Unified Agent for Windows Enrollment

The AirWatch Unified Agent, available through the Windows Store, provides a single resource for enrollment and facilitates communication between the device and the AirWatch Unified Agent Console. Use the AirWatch Unified Agent to simplify enrollment and enable full MDM functionality.

Consider using the AirWatch Unified Agent for Windows to enroll your Windows 7 devices as the agent provides the simplest enrollment flow for users. You may also consider awagent.com to start enrollment.

The same AirWatch Agent works for both Windows Desktop and Windows 7 devices. When the AirWatch Agent installer runs on a device, the agent checks the enrollment status of the device. If the device is enrolled through Windows Desktop, the agent acts as the AirWatch Protection Agent and installs onto the device. If the device is not enrolled, the AirWatch Agent begins the enrollment process to enroll the device as a Windows 7 device.

Note: If the enrollment process is interrupted, launching the AirWatch Unified Agent again automatically re-initiates the enrollment process. To relaunch the agent, double-click the icon.

Enroll Windows 7 Devices with the AirWatch Unified Agent

Use the AirWatch Unified Agent to start enrollment of your Windows Desktop devices. The AirWatch Unified Agent provides a simplified enrollment flow for end users that is quick and easy to follow.

To enroll Windows 7 devices using the AirWatch Unified Agent:

1. Navigate to www.awagent.com. The AirWatch Unified Agent Installer begins downloading.
2. Start the installer once the download completes.
3. Select **Run** to begin the installation.
4. Select **Email** if you have AirWatch Auto-Discovery enabled, otherwise select **Server Detail**.
5. Complete the settings required based on the authentication type selected:
   - Enter the email address to auto-fill the server details screen. Select **Next** and the details are entered.
   - Enter the Server Name and Group ID if you are not using AirWatch Auto-Discovery to complete the settings. Select **Next**.
6. Enter the **Username** and **Password** and select **Next** (Windows 7 images only).
7. Complete any optional screens.
8. Select **Finish** to complete the enrollment.

Once completed, Workspace ONE UEM pushes profiles and products to the device.

Install the AirWatch Unified Agent on a Base Operating System Image

Download the AirWatch Unified Agent onto a device and configure the AirWatch Unified Agent for use on a base operating system image for deployment. This enrollment flow allows you to ship devices to users with the Agent preinstalled, only requiring end users to enter their user credentials.

To begin the enrollment process on the behalf of the end user:

1. Navigate to awagent.com. The agent downloads immediately.
2. Run the Agent installer (`AirWatchAgent.msi`) and, if prompted, accept any security warnings.
3. Click **Run** to begin the AirWatch Unified Agent installation wizard.
4. After installation and the AirWatch Unified Agent starts, select the Settings icon ().
5. Select the operating system the image uses.

   If you are enrolling a Windows 8.1 or Windows 10 device using the AirWatch Unified Agent for Windows, you must select **This is for Windows 7 Image**. If you select **This is for Windows 8.1/10**, the device must be enrolled using MDM enrollment.
6. Enter the **Server URL** and **Group ID**.
7. Select **Save**.

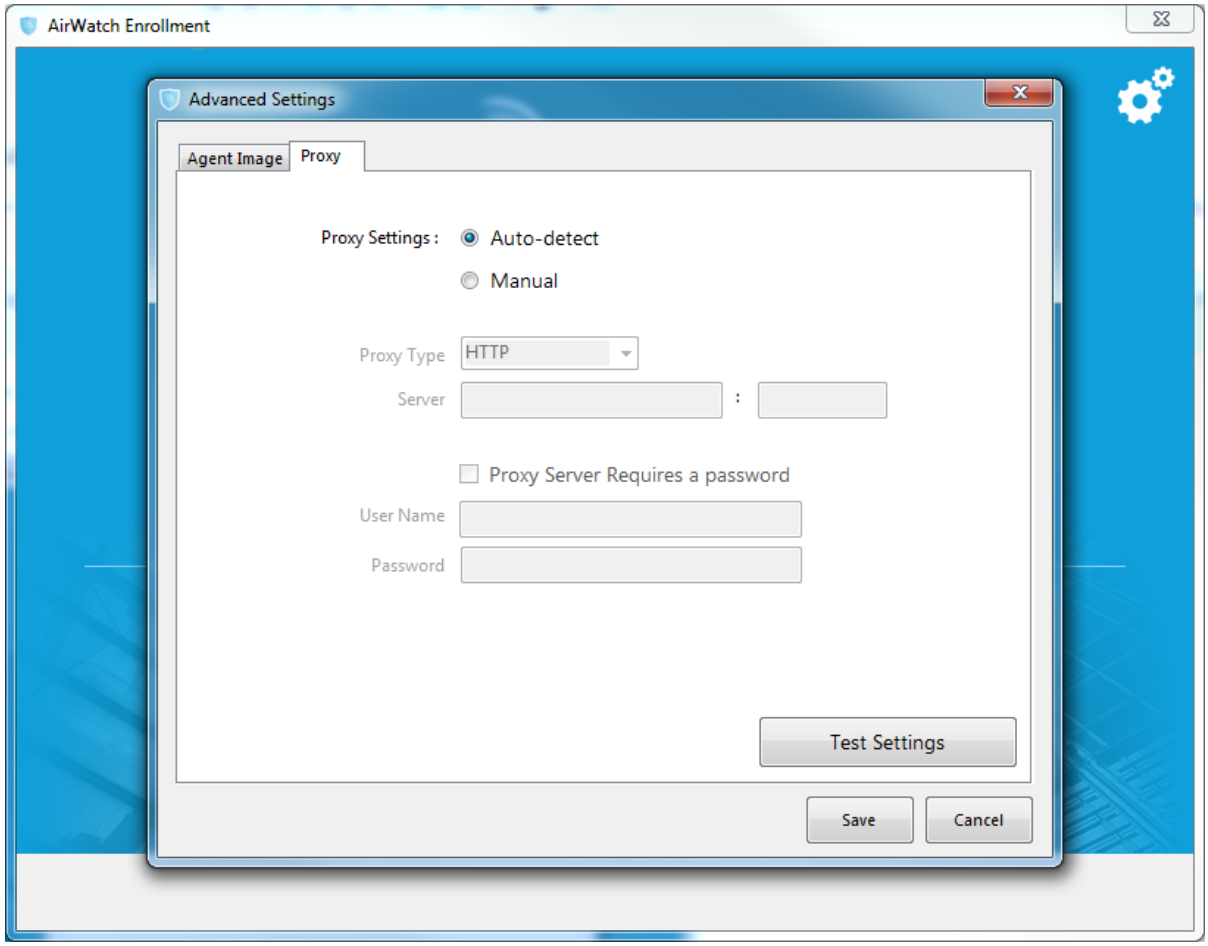
The AirWatch Unified Agent is now installed into the system image and starts on any imaged device so end users can enter their credentials.

Enroll Windows 7 Devices Through a Proxy

A Windows 7 might be behind a proxy server that may prevent you from enrolling devices. if you use a proxy server, configure the proxy settings for the AirWatch Unified Agent.

To set up the Proxy configuration:

1. Start the AirWatch Unified Agent.
2. Select the **Settings** icon ( ).



3. Select the appropriate **Proxy Settings**:

Settings	Descriptions
Auto-detect	Select to have the AirWatch Unified Agent automatically detect the proxy settings configured on the device browser and use those settings for communication with the Workspace ONE UEM Console.

Settings	Descriptions
Manual	Select to configure the proxy settings manually for the AirWatch Unified Agent.
Proxy Type	Displays HTTP as the proxy type.
Server	Enter the proxy server URL and port number.
Proxy Server Requires a Password	Enable to enter the Username and Password for the proxy server.

4. Select **Save** to apply the Proxy Settings.

   Use **Test Settings** before saving and applying the proxy settings.

5. Select **Finish** to apply the settings and close the AirWatch Unified Agent.

Windows 7 Silent Enrollment

You can silently download the AirWatch Unified Agent onto devices using BAT files and command-line entries. This enrollment method bypasses end-users interactions and simplifies enrollment.

Running a command-line installation eliminates all InstallShield prompts so the admin does not need to select acknowledgment buttons continuously. This installation method reduces the time it takes to install the AirWatch Unified Agent and simplifies the process.

Installation of AirWatch Unified Agent using silent enrollment assumes that the user accepts the EULA by default since all acknowledgment screens are automatically bypassed. The EULA is automatically accepted and not displayed.

Silent enrollment supports the following use cases:

- On a base OS image without enrolling the device.
- On a PC using command line switches to complete silent enrollment.

Important: Devices behind a proxy cannot be enrolled through Silent Enrollment.

Enroll Windows 7 Devices Silently

Download and install the AirWatch Unified Agent onto a device without requiring end-user interaction. This enrollment flow allows you to bypass end users and enroll devices quickly and easily.

Note: If you are storing the AirWatch Unified Agent on a network drive for later use, ensure that you are downloading the latest version of the AirWatch Unified Agent from awagent.com. Also, you can refer to Silent Enrollment Agent Requirements on page 4.

To enroll silently:

1. Navigate to awagent.com to download the AirWatch Unified Agent.

   Only download the AirWatch Unified Agent. Do not start the executable or select **Run** as that initiates a standard enrollment process and defeats the purpose of silent enrollment.

   If necessary, move the AirWatch Unified Agent from the download folder to a local or network drive folder.

2. Open a command line or create a BAT file and enter all the necessary paths, parameters, and values using information shown in Silent Enrollment Parameters and Values on page 11.

3. Run the command. For examples of typical syntax, see Examples of Silent Enrollment on page 12.

The AirWatch Unified Agent is installed on the Windows device without requesting you to select any acknowledgment buttons.

Silent Enrollment Parameters and Values

Silent enrollment requires command-line entries or a BAT file to control how the AirWatch Unified Agent downloads and installs onto the device.

The following table lists all the possible enrollment parameters you can enter into a command line or into a BAT file, and the respective values for each parameter. Parameters highlighted in **blue** and **green** are the minimum parameters required for enrollment. Blue designates image only. Blue plus green designates user enrollment.

Enrollment Parameters	Values to Add to Parameter
/ENROLL	Select 'Y' to enroll. Select 'N' for image only.
/IMAGE	Select 'Y' for image. Select 'N' for enrollment.
/SERVER	Enter the enrollment URL.
/LGName	Enter organization group name.
/USERNAME	Enter the user name for the user being enrolled or the staging user name if staging the device on the behalf of a user.
/PASSWORD	Enter the password for the user being enrolled or the staging user password if staging the device on the behalf of a user.
ASSIGNTOLOGGEDINUSER	Select 'Y' to assign the device to the logged in domain user.
/STAGEUSERNAME	Enter user name for the enrolling user.
/SECURITYTYPE	Needed if user account is added to Workspace ONE UEM console during enrollment process: • Select 'D' for Directory. • Select 'B' for Basic User type.
/STAGEEMAILUSRNAME*	Enter the email user name for the user being enrolled.

Enrollment Parameters	Values to Add to Parameter
/STAGEPASSWORD	Enter the password for the user being enrolled.
/STAGEEMAIL*	Enter the email address for the user being enrolled.
/DEVICEOWNERSHIPTYPE*	Select 'CD' for Corporate Dedicated. Select 'CS' for Corporate Shared. Select 'EO' for Employee Owned. Select 'N' for None.
/INSTALLDIR*	Enter the directory path if you want to change installation path. **Note:** If this parameter is not present, the AirWatch Unified Agent uses the default path: C:\Program Files (x86)\AirWatch.
Items denoted with an asterisk (*) are optional.	

Examples of Silent Enrollment

Below are examples of various use cases using enrollment parameters and the values that you can enter into a command line or use to create a BAT file. Initiating any one of these examples silently enrolls the Windows device without prompting the user to select any of the acknowledgment buttons.

Agent Install for Image Only Without Enrollment

The following is an example of installing the agent for image only without enrollment using minimum parameters required for image only.

AirwatchAgent.msi /quiet ENROLL=N IMAGE=Y

Basic User Enrollment

The following is an example of using minimum parameters required for basic enrollment only:

AirwatchAgent.msi /quiet ENROLL=YIMAGE=n SERVER=companyURL.com LGName=locationgroupid USERNAME=TestUsr PASSWORD=test

AirWatch Unified Agent Installed Elsewhere

The following is an example of the AirwatchAgent.msi located in a different location:

C:\AirwatchAgent.msi /quiet ENROLL=Y IMAGE=n SERVER=companyURL.com LGName=locationgroupid USERNAME=TestUsr PASSWORD=test

Installation Directory and AirWatch Unified Agent on Network Drive

The following is an example of the installation directory parameter with the AirWatch Unified Agent on a network drive.

Important: Add extra quotes for the INSTALLDIR parameter when there is space within the parameter.

Q:\AirwatchAgent.msi /quiet INSTALLDIR=\"E:\Install Win32\" ENROLL=Y IMAGE=n SERVER=companyURL.com LGName=locationgroupid USERNAME=TestUsr PASSWORD=test

All Available Parameters and Values

The following is an example of the syntax using all available parameters and values shown in the previous table.

<AirwatchAgent.msi> /quiet ***INSTALLDIR***=\"<Directory Path>" ***ENROLL***=<Y/N> ***IMAGE***=<Y/N> ***SERVER***=<CompanyURL> ***LGNAME***=<Location Group ID> ***USERNAME***=<Username> ***PASSWORD***=<Username Password> ***STAGEUSERNAME***=<Stager Username> ***SECURITYTYPE***=<D/B> ***STAGEEMAILUSRNAME***=<User Enrolling> ***STAGEPASSWORD***=<Password for User Enrolling> ***STAGEEMAIL***=<Email Address for User Enrolling> ***DEVICEOWNERSHIPTYPE***=<CD/CS/EO/N>***ASSIGNTOLOGGEDINUSER***=<Y/N>

Chapter 3:
Windows 7 Profiles Overview

Profiles are the primary means to manage devices. Configure profiles so your Windows 7 devices remain secure and configured to your settings.

Overview

You can think of profiles as the settings and rules that, when combined with compliance policies, help you enforce corporate rules and procedures. They contain the settings, configurations, and restrictions that you want to enforce on devices.

The individual settings you configure, such as the settings for Wi-Fi, VPN, and passcodes, are payloads. Consider associating only one payload per profile. Create multiple profiles for the different settings you want to establish.

Device Security

Ensure that your Windows 7 devices remain secure through device profiles. These profiles configure the native Windows security features or configure corporate security settings on a device through Workspace ONE UEM.

Some examples of device security profiles include:

- Use a Wi-Fi profile to connect enrolled devices to your corporate Wi-Fi without sending the network credentials to users. For more information, see Configure a Wi-Fi Profile (Windows 7) on page 15.
- Ensure access to internal resources for your devices with the VPN profile. For more information, seeEnforce a VPN Profile (Windows 7) on page 16.
- Secure a device with a Passcode profile. For more information, see Configure a Passcode Profile (Windows 7) on page 21.

Device Configuration

Configure the various settings of your Windows 7 devices with the configuration profiles. These profiles configure the device settings to meet your business needs.

Some examples of device configuration profiles include:

- Set up an Exchange account on a device with an Exchange ActiveSync profile. For more information, see Create an Exchange Web Services Profile (Windows 7) on page 18.
- Ensure that the devices remain up to date with the Windows Updates profile. For more information, see Configure an Automatic Updates Profile (Windows 7) on page 23.
- Keep your data secure with the Encryption profile. For more information, see Encryption Profile (Windows 7) on page 18.

Configure a Wi-Fi Profile (Windows 7)

Create a Wi-Fi profile to connect devices to hidden, encrypted, or password-protected corporate networks. Wi-Fi profiles are useful for end users who travel to various office locations that have unique wireless networks or for automatically configuring devices to connect to the appropriate wireless network.

To configure a Wi-Fi profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Wi-Fi** profile.
5. Configure the Wi-Fi settings:

Settings	Descriptions
Wi-Fi Network Name	Enter the name (SSID) of the desired Wi-Fi network.
Connection Type	Use the drop-down menu to select the Wi-Fi connection type as **Ad Hoc** or **Infrastructure**.
Connection Mode	Use the drop-down menu to specify automatic or manual joining of the network.
Security Type	Use the drop-down menu to select the security type for the Wi-Fi network.
Encryption	Use the drop-down menu to select the encryption method for the connection. Choosing WPA or WPA2 Enterprise adds the Authentication section that must be completed.
Password	Enter the password required to join the Wi-Fi network. Select **Show Characters** to disable hidden characters within the text box.
Authentication	Iif needed, choose the Root Certificate and enable AD authentication. Displays only if **Security Type** is set to **WPA Enterprise** or **WPA2 Enterprise**.
Enable AD Authentication	Select to use user AD credentials to authenticate instead of using a certificate. Displays only if **Security Type** is set to **WPA Enterprise** or **WPA2 Enterprise**.
Root Certificate	Select the certificate used to authenticate.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Enforce a VPN Profile (Windows 7)

Create a VPN Profile to deploy corporate VPN settings directly to managed devices. This profile allows end users to access corporate infrastructure remotely and securely.

To enforce a VPN profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **VPN** profile.
5. Select Enable VPN to configure the VPN settings, including:

Settings	Descriptions
Connection Type	Use the drop-down menu to select the network connection method.
Connection Name	Enter the name of the connection.
Server	Enter the hostname or IP address of the server to which to connect.
Username	Enter the user name required for VPN authentication.
Domain	Enter the name of the domain to which the VPN connects.
Password	Enter the password required to join the VPN. Select **Show Characters** to disable hidden characters within the text box.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Credentials Profile (Windows 7)

A Credentials profile allows you to push Root, Intermediate, and Client certificates to support any Public Key Infrastructure (PKI) and certificate authentication use case. The profile pushes configured credentials to the proper credentials store on the Windows 7 device.

Even with strong passcodes and other restrictions, your infrastructure remains vulnerable to brute force, dictionary attacks, and employee error. For greater security, you can implement digital certificates to protect corporate assets. To use certificates in this way, you must first configure a Credentials payload with a certificate authority, and then configure your Wi-Fi and VPN payloads. Each of these payloads has settings for associating the certificate authority defined in the Credentials payload.

Create a Credentials Profile (Windows 7)

A Credentials profile pushes certificates to devices for use in authentication. With Workspace ONE UEM, you can configure credentials for personal, intermediate, trusted root, trusted publisher, and trusted people certificate stores.

To configure a Credentials payload:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Credentials** profile.
5. Configure the Credentials settings:

Settings	Description
Credential Source	Use the drop-down menu to select either **Upload** or **Defined Certificate Authority**.
Credential Name	Enter a name for the credentials certificate. Displays if the **Credential Source** is **Upload**.
Certificate	Click **Upload**, navigate to the desired credential certificate file, and then select **Save**. Displays if the **Credential Source** is **Upload**.
Certificate Authority	Use the drop-down menu to select a predefined certificate authority. Displays if the **Credential Source** is **Define Certificate Authority**.
Certificate Template	Use the drop-down menu to select a predefined certificate template specific to the selected certificate authority. Displays if the **Credential Source** is **Define Certificate Authority**.
Store Location	Use the drop-down menu to choose to save the certificate on the specific User account level or on the Computer Store for all users of a computer.
Certificate Store	Select the certificate store folder location from the drop-down menu. • Personal (Default) • Trusted Root Certification Authorities • Intermediate Certificate Authorities • Trusted Publishers • Untrusted Certificates • Trusted People

6. Select **Save & Publish** when you are finished to push the profile to devices.

Configure a Shortcuts Profile (Windows 7)

A Shortcuts profile allows you to save URLs for your end users to access. Use the Shortcuts profile when you want to push specific URLs such as an internal website to your end users.

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Shortcuts** profile.

5. Configure the Shortcuts settings:

Settings	Descriptions
Label	Enter a descriptive name for the shortcut.
URL	Enter the target Web address for the shortcut to use.
Icon	Upload an image to serve as a visual representation for the shortcut on the desktop. The file type must be .ico.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Create an Exchange Web Services Profile (Windows 7)

Create an Exchange Web Services profile to allow the end user to access corporate email infrastructures and Microsoft Outlook accounts from the device.

Important During initial configuration, the device must have access to the Internal Exchange Server.

To create an Exchange Web Services profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Exchange Web Services** profile.
5. Configure the Exchange Web Services settings:

Settings	Descriptions
Domain	Enter the name of the email domain to which the end user belongs.
Email Server	Enter the name of the Exchange server.
Email Address	Enter the address for the email account.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Removing an Exchange Web Services profile removes all Outlook accounts from the device.

Encryption Profile (Windows 7)

Secure your organization data on Windows 7 devices using the native BitLocker encryption with the Encryption profile. BitLocker encryption policy is only available on Windows 7 Ultimate and Enterprise, Windows 8 Enterprise and Pro, and Windows 10 Enterprise, Education, and Pro devices.

Because laptops and tablets are mobile devices by design, they risk your organization data being lost or stolen. By enforcing a BitLocker encryption policy through Workspace ONE UEM, you can protect data on the hard drive. BitLocker

is the native Windows encryption that Workspace ONE UEM supports. The Encryption profile continually checks the encryption status of the device. If the profile finds that the device is not encrypted, it automatically encrypts the device.

If you decide to encrypt with BitLocker, a recovery created during encryption is stored in the Workspace ONE UEM console.

Note: The BitLocker Encryption profile requires the AirWatch Unified Agent to be installed on the device.

Deploying an Encryption Profile

The Windows native BitLocker encryption secures data on Windows 7. Deploying the encryption profile requires more actions from the end user.

Note: For BitLocker encryption to take place, the device must have Trusted Platform Module (TPM) enabled. The exact process to enable and activate TPM may vary from one system to another but is typically done by restarting the device and accessing the BIOS security settings.

Pushing BitLocker Profiles

The BitLocker encryption uses a wizard to enable and activate the encryption on end-user devices. Note the following important points when pushing BitLocker to end users:

- If **Enforce Encryption PIN to Login** is enabled, end users are prompted to create a 4–20 digit PIN that is used every time the machine is restarted.
  - This PIN is required even during restarts required by encrypting and decrypting the drive.
- The end users are prompted to select a local recovery key storage path. The recovery key is saved as a TXT file at the selected path.
- If TPM is not enabled, BitLocker encryption cannot take place. If TPM is enabled but not active, the wizard restarts the device to activate it. This reboot requires the end user to accept the change.

BitLocker and the UEM console

If BitLocker is enabled and in use, you can see encryption status reports in the following areas:

- Workspace ONE UEM Dashboard
  - Device Details displays recovery key information.
  - Encryption progress (percentage) or completion at the time of the device sample displays.
  - BitLocker protection displays as enabled.
- Workspace ONE UEM Self-Service Portal (SSP)
  - Self-Service Portal displays that the recovery key is stored in Workspace ONE UEM, but does not display recovery key details.
  - Encryption progress (percentage) or completion displays.
  - BitLocker protection displays as enabled.

Note: During device encryption, the profile may display as **Not Installed** in the Workspace ONE UEM console. Once encryption of the device reaches 100%, the profile displays as installed.

Removal Behavior

If the profile is removed from the UEM console, Workspace ONE UEM no longer enforces the encryption and the end user is free to decrypt. Enterprise wiping or manually uninstalling the AirWatch Unified Agent from the Control Panel does not turn off BitLocker. The device end user must decrypt from the Control Panel.

If the end user decides to unenroll during the BitLocker encryption process, the encryption process continues unless it is turned off manually from the Control Panel.

Encryption Warnings

Only manage BitLocker encryption with the Encryption profile, or the device may report incorrect information and become unmanageable. Some sample scenarios include:

- If the user decrypts BitLocker from the entire system or any drives using the Control Panel, the device becomes unmanageable as the status may not display correctly. A device is encrypted with BitLocker from the UEM console, it must be decrypted from the UEM console as well.
- Once the user initiates the encryption or decryption process, do not change the TPM settings as it may cause instability and unwanted behavior.

Configure an Encryption Profile (Windows 7)

Create an Encryption profile to secure your data on Windows Desktop devices using the native BitLocker encryption.

To create an Encryption profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.

4. Configure the Encryption settings:

Settings	Descriptions
Encrypted Volume	Use the drop-down menu to select the type of encryption as follows: • **System Partition** – Encrypts a partition or drive in the same location where Windows is installed and from which it boots. • **Complete Hard Disk** – Encrypts the entire hard disk on the device, including the System Partition where the OS is installed. This option also encrypts any attached drives such as USB drives. **Note:** If any additional devices are included during encryption, you must decrypt the additional drives and the complete hard disk. If you decrypt the hard disk without including the additional drives, you will be unable to decrypt the additional drives.
Enforce Encryption PIN on Login	Select to require users to enter a PIN upon starting the device.

5. Select **Save & Publish** when you are finished to push the profile to devices.

Configure a Passcode Profile (Windows 7)

Enforce a Passcode profile to protect devices with passcodes each time they return from an idle state. A passcode ensures that all sensitive corporate information on managed devices remains protected.

Using this profile requires users to reset their device passcode even if the existing passcode is stronger than the minimum requirements.

Prerequisites

To push the Passcode profile to devices, you must first enable it in the Agent Settings. Navigate to **Devices & Users > Windows > Windows 7 > Agent Settings** and select **Enforce Passcode**.

Procedure

To configure the Passcode profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.

4. Select the **Passcode** profile.

5. Select **Require Passcode on device** and configure the Passcode settings:

Settings	Descriptions
Allow Simple Value	Select to allow simple passcodes instead of complex passcodes requiring multiple characters and numbers.
Enforce Passcode History	Enter a value to force end users to select a passcode they have not used before. The value entered (0-24) is the number of passcodes kept in the history that an end user has used before. You cannot use Previous passcodes again until it is no longer kept in the history.
Maximum Passcode Age (days)	Enter the number of days a passcode can be used before it must be changed.
Minimum Passcode Age (days)	Enter the number of days that must pass before an end user may change their passcode. If the value is 0, then Passcode History is not effective.
Minimum Passcode Length	Enter the minimum number of characters a passcode must have.
Setup Account Lockout	
Account Lockout Duration (mins.)	Enter the number of minutes a device is locked out after entering the passcode incorrectly too many times.
Account Lockout Threshold	Enter the number of passcode attempts allowed before the device is locked out.
Rest Account Lockout Count After (mins.)	Enter the number of minutes that must pass after a failed login attempt before the failed login attempt-counter is reset. This value must be less than or equal to Account Lockout Duration.
Enable Screen Lockout	
Inactivity Period Before Locking Screen (mins.)	Enter the number of minutes of inactivity that must pass before the screen is automatically locked.

Settings	Descriptions
Enterprise Wipe	
Reset Password and Account Lockout Policies upon Enterprise Wipe	**Enabled by default** Enable to reset password and account lockout polices to simple values with no enforcement after an Enterprise Wipe command is sent to the device.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Configure an Automatic Updates Profile (Windows 7)

Create a Windows Updates profile to manage the Windows Updates settings for Windows Desktop devices. The profile ensures that all your devices are up-to-date, which improves device and network security.

Important: The Windows Automatic profile only affects non-domain joined Windows 7 devices.

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then select **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Automatic Updates** profile.
5. Configure the Windows Automatic Updates settings:

Settings	Descriptions
Windows Update Source	Select the source for Windows Updates: • Microsoft Default – Select to use the default Microsoft Update Server. • Corporate WSUS – Select to use a corporate server and enter the **WSUS Server URL** and **WSUS Group**. **Note:** Choosing Corporate WSUS as a source allows your IT Admin to view updates installed and device status of devices in the WSUS Group.
Important Updates	Select the rules to use for Important Updates.
Install Recommended Updates the Same Way as Important Updates	Enable to install Recommended Updates using the same rules Important Updates use.
Update Other Microsoft Products When Updating Windows	Enable to allow other Microsoft Products to update when Windows is updated.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Configure a Firewall Profile (Windows 7)

The Firewall profile for Windows Desktop devices allows you to configure the Windows Firewall settings for devices. With devices all having the Windows Firewall configured and enabled, you greatly increase your network security.

The Firewall profile only affects non-domain joined Windows 7 devices.

To configure a Firewall profile:

1. Navigate to **Devices > Profiles > List View > Add** and select **Add Profile**.
2. Select **Windows** and then **Windows 7**.
3. Configure the profile **General** settings.
4. Select the **Firewall** profile.
5. Configure the Firewall settings, including:

Settings	Description
Use Windows Recommended Settings	Enable this setting to use the Windows Recommended Settings and disable all other options available for this profile.
Private Network	
Enable Firewall	Enable to ensure that the firewall is running on devices.
Block all connections to apps that are not on the list of allowed apps	Enable to restrict all access for non-whitelisted apps.
Block all incoming connections including those in the list of allowed apps	Enable to block all incoming connections while allowing outbound connections.
Notify User when Windows Firewall blocks a new app	Enable to allow notifications to display when the Windows Firewall blocks a new app.
Public Network	
Enable Firewall	Enable to ensure that the firewall is running on devices.
Block all connections to apps that are not on the list of allowed apps	Enable to restrict all access for non-whitelisted apps.
Block all incoming connections including those in the list of allowed apps	Enable to block all incoming connections while allowing outbound connections.
Notify User when Windows Firewall blocks a new app	Enable to allow notifications to display when the Windows Firewall blocks a new app.

6. Select **Save & Publish** when you are finished to push the profile to devices.

Chapter 4:
Compliance Policies

The compliance engine is an automated tool by Workspace ONE ™ UEM that ensures all devices abide by your policies. These policies can include basic security settings such as requiring a passcode and having a minimum device lock period. For certain platforms, you can also decide to set and enforce certain precautions. These precautions include setting password strength, blacklisting certain apps, and requiring device check-in intervals to ensure that devices are safe and in-contact with Workspace ONE UEM.

Once devices are determined to be out of compliance, the compliance engine warns users to address compliance errors to prevent disciplinary action on the device. For example, the compliance engine can trigger a message to notify the user that their device is out of compliance.

In addition, devices not in compliance cannot have device profiles assigned to it and cannot have apps installed on the device. If corrections are not made in the amount of time specified, the device loses access to certain content and functions that you define. The available compliance policies and actions vary by platform.

For more information about compliance policies, including which policies and actions are supported for a particular platform, refer to the **VMware AirWatch Mobile Device Management Guide**, available on docs.vmware.com.

Chapter 5:
Windows 7 Application Overview

You can use AirWatch applications in addition to Workspace ONE UEM MDM features to further secure devices and configure them with added functionality.

Use the VMware Content Locker to safeguard corporate content on mobile devices. Download the AirWatch Unified Agent for Windows to monitor your devices on a more granular level.

Configure the AirWatch Unified Agent for Windows 7

The AirWatch Unified Agent for Windows devices is pre-configured with Workspace ONE UEM. Change these settings when you need the AirWatch Unified Agent to meet certain business needs.

The AirWatch Unified Agent for Windows adds features and functionality for managing and configuring Windows 7 devices. Besides enrollment, the AirWatch Unified Agent reports the device status to the Workspace ONE UEM Console and allows for advanced profiles such as Firewall and Windows Updates.

The AirWatch Unified Agent for Windows can be found on the Resource Portal and at awagent.com.

Configuring the AirWatch Unified Agent

Navigate to **Groups & Settings > All Settings > Devices & Users > Windows > Windows 7 > Agent Settings** to change the following settings:

Setting	Description
Beacon Interval (min)	Enter the time interval (in minutes) at which the agent will check in with the Workspace ONE UEM console.
Data Sample Interval (min)	Enter the time interval (in minutes) at which the agent will collect a data sample from the device.
Data Transmit Interval (min)	Enter the time interval (in minutes) at which the agent will transmit the collected data sample to the console. This settings also controls how often the AirWatch Agent checks for a new automatic upgrade if enabled.

Setting	Description
Block Enrollment if Windows Genuine validation fails	Enable to block devices with non-genuine copies of Windows Operating Systems from enrolling into Workspace ONE UEM. • If a device is enrolled and the agent detects the Windows copy is not genuine, the agent will send an Enterprise Wipe command to the device. • If a device attempts to enroll and the copy of Windows is not genuine, a Non-Compliance message will display and immediately unenroll a device.
Enforce Passcode Profile	Enable to force the agent to prompt end users for password changes when a passcode profile is installed or updated. This option does not apply to domain-joined devices.
Windows Agent Automatic Updates	Enable to automatically update the AirWatch Agent when an update becomes available.

Remote Management

Setting	Description
Download Remote Control Cab	Select this link to download the cabinet (CAB) installer file for Workspace ONE UEM Remote Management.
Seek Permission	Enable Seek Permission if you want to prompt the end user to accept or decline the remote management request from the admin. • Enter a **Seek Permission Message** that the end user sees when a remote request is sent. • Enter the **Yes Caption** message for the accept button the end user sees on the Seek Permission request. • Enter the **No Caption** message for the decline button the end user sees on the Seek Permission request.
Advanced	
Remote Management Port	Enter the port used to communicate between the Remote Management Agent and the Tunnel Agent on the end-user device. This port is responsible for caching the different frames on the device for use with the screen sharing function. The default port is 7775. Consider leaving the default setting unless port 7775 is in use for other uses in your organization.
Device Log Level	Set the Device Log Level to control the verbosity of the remote management application on the device.
Log Folder Path	Define the Log Folder Path where the application saves the remote management log file on the device.
Display Tray Icon	Enable Display Tray Icon to show the remote management applet on the device.
Max Sessions	Enter the maximum number of concurrent sessions allowed on a device.

Setting	Description
Number of Retries	Enter the number of retries allowed before communication attempts stop.
Retry Frequency (Seconds)	Enter the amount of time between attempts to communicate.
Heartbeat Interval (Seconds)	Enter the amount of time (in seconds) that passes between status updates that are sent from the device.
Connection Loss Retry Frequency (Seconds)	Enter the amount of time (in seconds) that passes between attempts to reestablish the connection.

AirWatch Unified Agent for Windows Upgrades

When you update the AirWatch Unified Agent for Windows on a Windows 7 device, you must ensure that you use specific file names. Ensure that the file name is correct when downloading the agent.

The AirWatch Unified Agent download file is **AirwatchAgent.msi**. The file name must be exactly **AirwatchAgent.msi** or the automatic upgrade fails. For example, if you download a second copy of the file, it is labeled as **AirwatchAgent.msi(1)**. Attempts to use this numbered copy fail to upgrade.

If you enable the Windows Agent Automatic Updates option, the AirWatch Unified Agent for Windows automatically updates without end-user interaction. If you are using any version before AirWatch Unified Agent for Windows v7.0.0, you must upgrade the agent manually to v7.0.0+.

Important: During the upgrade process for end users, an alert displays if the upgrade fails three times. If an end user contacts you about this message, perform an enterprise wipe and instruct your end users to reinstall the AirWatch Unified Agent.

VMware Content Locker for Windows 7

VMware Content Locker is an application that enables your end users to access important content on their devices while ensuring file safety for your organization.

From the VMware Content Locker, end users can access content you upload in the UEM console, content from synced corporate repositories, or their own personal content.

Use the UEM console to add content, sync repositories and configure the actions that end users can take on content opened within the application. These configurations prevent content from being copied, shared, or saved without approval.

Chapter 6:
Product Provisioning Overview

Product provisioning enables you to create, through Workspace ONE ™ UEM, products containing profiles, applications, files/actions, and event actions (depending on the platform you use). These products follow a set of rules, schedules, and dependencies as guidelines for ensuring your devices remain up-to-date with the content they need.

Product provisioning also encompasses the use of relay servers. These servers are FTP(S) servers designed to work as a go-between for devices and the UEM console. Create these servers for each store or warehouse to store product content for distribution to your devices.

Chapter 7:
Windows 7 Device Management

After your devices are enrolled and configured, manage the devices using the Workspace ONE ™ UEM console. The management tools and functions enable you to keep an eye on your devices and remotely perform administrative functions.

You can manage all your devices from the UEM console. The Dashboard is a searchable, customizable view that you can use to filter and find specific devices. This feature makes it easier to perform administrative functions on a particular set of devices. The Device List View displays all the devices currently enrolled in your Workspace ONE UEM environment and their status. The **Device Details** page provides device-specific information such as profiles, apps, AirWatch Agent version and which version of any applicable OEM service currently installed on the device. You can also perform remote actions on the device from the Device Details page that are platform-specific.

Device Dashboard

As devices are enrolled, you can manage them from the Workspace ONE ™ UEM **Device Dashboard**. The **Device Dashboard** provides a high-level view of your entire fleet and allows you to act on individual devices quickly.

You can view graphical representations of relevant device information for your fleet, such as device ownership type, compliance statistics, and platform and OS breakdowns. You can access each set of devices in the presented categories by selecting any of the available data views from the **Device Dashboard**.

From the **List View**, you can take administrative action: send messages, lock devices, delete devices, and change groups associated with the device.

Device List View

Select **Devices > List View** to see a full listing of all devices.

The **Last Seen** column displays an indicator showing the number of minutes elapsed since the device has checked-in.

Select a device in the **General Info** column at any time to open the details page for that device.

Sort by columns and configure information filters to review device activity based on specific information. For example, sort by the **Compliance Status** column to view only devices that are currently out-of-compliance and target only those devices. Search all devices for a friendly name or user name to isolate one device or user.

Customize Device List View Layout

Display the full listing of visible columns in the **Device List** view by selecting the **Layout** button and select the **Custom** option. This view enables you to display or hide Device List columns per your preferences.

There is also an option to apply your customized column view to all administrators. For instance, you can hide 'Asset Number' from the **Device List**.

Once all your customizations are complete, select the **Accept** button to save your column preferences and apply this new column view. You can return to the **Layout** button settings at any time to tweak your column display preferences.

Search in Device List View

You can search for a single device for quick access to its information and take remote action on the device.

To run a search, navigate to **Devices > List View**, select the **Search List** bar and enter a user name, device friendly name, or other device-identifying element. This action initiates a search across all devices, using your search parameter.

Windows 7 Device Details Page

Use the Device Details page to track detailed device information and quickly access user and device management actions.

You can access Device Details by selecting a device Friendly Name from the Device List View, using one of the Dashboards, or with any of the search tools.

From the Device Details page, you can access specific device information broken into different menu tabs. Each menu tab contains related device information depending on your Workspace ONE UEM deployment.

Remote Actions

The **More drop-down** on the Device Details page enables you to perform remote actions over the air to the selected device.

The actions vary depending on factors such as the device platform, Workspace ONE UEM console settings, and enrollment status:

- **Add Tag** – Assign a customizable tag to a device, which can be used to identify a special device in your fleet.
- **Change Organization Group** – Change the device's home organization group to another pre-existing OG. Includes an option to select a static or dynamic OG.
- **Delete Device** – Delete and unenroll a device from the UEM console. This action performs an Enterprise Wipe and remove its representation in the UEM console.
- **Edit Device** – Edit device information such as **Friendly Name**, **Asset Number**, **Device Ownership**, **Device Group** and **Device Category**.
- **Enterprise Wipe** – Enterprise Wipe a device to unenroll and remove all managed enterprise resources including applications and profiles. This action cannot be undone and re-enrollment will be required for Workspace ONE UEM to manage this device again. Includes options to prevent future re-enrollment and a **Note Description** field for you to add any noteworthy details about the action.
  - Enterprise Wipe is not supported for cloud domain-joined devices.
- **Lock Device** – Send an MDM command to lock a selected device, rendering it unusable until it is unlocked.

- **Query All** – Send a query command to the device to return a list of installed apps (including AirWatch Agent, where applicable), books, certificates, device information, profiles and security measures.
- **Remote Management** – Take control of a supported device remotely using this action, which launches a console application that enables you to perform support and troubleshoot on the device.
- **Send Message** – Send a message to the user of the selected device. Choose between **Email**, **Push Notification** (through AirWatch Cloud Messaging), and **SMS**.

Advanced Remote Management

Advanced Remote Management (ARM) allows you to connect remotely to end-user devices so you can help with troubleshooting and maintenance. ARM requires your computer and the end-user device to connect to the Remote Management Server to facilitate communication between the Workspace ONE UEM console and the end-user device.

For more information on installing, configuring, and using Advanced Remote Management, see the **VMware Workspace ONE UEM Advanced Remote Management Guide**, available on docs.vmware.com.