

UpgradeGuide

VMware Workspace ONE UEM 2102

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

VMware, Inc.
3401 Hillview Ave.
Palo Alto, CA 94304
www.vmware.com

Copyright © 2021 VMware, Inc. All rights reserved. [Copyright and trademark information.](#)

Contents

1	Introduction to the Workspace ONE UEM Upgrade Guide	5
	Workspace ONE UEM Upgrade Procedure Context Notes	5
	Single Server vs. Multi Server Topologies	5
	Upgrade Note for Deployments Using VMware Tunnel	6
2	Workspace ONE UEM Upgrade Prerequisites	7
	Obtain the Latest Version of This Document	7
	Obtain the Upgrade Package Files	7
	Meet the Requirements	8
	Prepare for Downtime	8
	Contact Your On-Call Resources	8
	Determine Your Workspace ONE UEM Version	8
	Dell Factory Provisioning Service Versions	9
3	Workspace ONE UEM Upgrade Procedure Checklist	10
4	Prepare for Your Upgrade	12
	Meet the Hardware and Software Requirements	12
	Verify Workspace ONE UEM Configurations	13
	Perform SQL Preparations	13
5	Back Up Workspace ONE UEM Databases and Servers	15
	Back up the Workspace ONE UEM Database	15
	Back up the Workspace ONE UEM console and Device Services Servers	16
6	Stop Workspace ONE UEM Services	17
	Disable the World Wide Web Publishing Service	17
	Start the Workspace ONE UEM Application Installer	18
7	Upgrade Database, Console Server, and Device Services Server	19
	Upgrade the Workspace ONE UEM Database	19
	Upgrade Workspace ONE UEM Servers	20
	Perform a Patch Upgrade	21
8	Workspace ONE UEM Post-Upgrade Validation	22
	Verify Workspace ONE UEM Services Are Running	22
	Verify the Upgrade	23
	Post-Upgrade Checklist	24

[If Problems Are Detected After the Upgrade](#) 25

Introduction to the Workspace ONE UEM Upgrade Guide

1

You can take advantage of the latest features available for Workspace ONE UEM powered by AirWatch by keeping your Workspace ONE UEM environment up-to-date with the latest version. Learn more about how to prepare your environment for the upgrade, how upgrade, and what to expect once its been successfully upgraded.

As new versions of Workspace ONE UEM are introduced to the marketplace, you must go through a standard upgrade procedure on your existing Workspace ONE UEM infrastructure. This documentation discusses how to upgrade your VMware Workspace™ ONE™ UEM infrastructure regardless of your specific topology model. When you upgrade your Workspace ONE UEM console, also upgrade any third-party components, such as the VMware AirWatch Cloud Connector or the Secure Email Gateway; to ensure full compatibility and performance.

This chapter includes the following topics:

- [Workspace ONE UEM Upgrade Procedure Context Notes](#)

Workspace ONE UEM Upgrade Procedure Context Notes

Before you begin the Workspace ONE UEM upgrade procedure, it is important to understand the difference between the Console Servcer and the Device Services Server in relation to your topology. Learn more about the Console Server and Device Services Server companents for Workspace ONE UEM powered by AirWatch.

Single Server vs. Multi Server Topologies

To streamline the Workspace ONE UEM Upgrade Procedure, the document refers to both Workspace ONE UEM console Servers and Workspace ONE UEM Device Services Servers. Before proceeding, it is important to understand each of these components and what they mean to your specific topology model.

- The **Workspace ONE UEM console Server** refers to the component of Workspace ONE UEM that renders and displays the UEM console. It presents and sends data to the database directly from the Workspace ONE UEM UI.
- The **Workspace ONE UEM Device Services Server** refers to the component of Workspace ONE UEM that communicates with all the managed devices. This server runs all processes involved in receiving and transmitting information from devices to other components of the system. It is the Workspace ONE UEM end point.

If your instance of Workspace ONE UEM operates on a single application server alongside a database, then both of these components are installed on your individual application server. Wherever this documentation references the Console and Device Services server, simply perform the steps one time on your individual application server.

If your instance of Workspace ONE UEM contains multiple application servers, then these two components have been logically separated. In this case, the Workspace ONE UEM Installer detects which components must be installed on each server without any user input. For each step listed that describes both the Console and Device Services components, finish the procedure on all Workspace ONE UEM servers.

Upgrade Note for Deployments Using VMware Tunnel

The VMware Tunnel server requires communication with AWCM to authenticate devices. Because of this requirement, end-user devices cannot use the VMware Tunnel during the upgrade process.

Refer to the **VMware Tunnel** guide for additional information; available on docs.vmware.com.

Workspace ONE UEM Upgrade Prerequisites

2

Before you begin the Workspace ONE UEM upgrade process, finish the prerequisites to ensure a successful upgrade. Learn more about the upgrade prerequisites and how to complete them.

This chapter includes the following topics:

- [Obtain the Latest Version of This Document](#)
- [Obtain the Upgrade Package Files](#)
- [Meet the Requirements](#)
- [Prepare for Downtime](#)
- [Contact Your On-Call Resources](#)
- [Determine Your Workspace ONE UEM Version](#)
- [Dell Factory Provisioning Service Versions](#)

Obtain the Latest Version of This Document

Verify that you are using the latest version of this guide by downloading the latest copy of the document from docs.vmware.com. Workspace ONE UEM makes updates to these documents from time to time, and having the latest version allows you to follow Workspace ONE UEM best practices and procedures.

Obtain the Upgrade Package Files

- 1 Navigate to <http://my.workspaceone.com>.
- 2 Select the hamburger menu icon, then select **Software Console**.
- 3 Ensure your **current** Workspace ONE UEM version is selected in the top-left.
- 4 Search for the installer associated with the version to which you want to upgrade.

If you are on AirWatch v9.3 or below: Download the database upgrade package to bring the database version up to v9.3. For detailed information on upgrading to v9.3, see the [How to Self Upgrade an On-Premises Environment](#) kb article.

- 5 Select either the Full Installer or the Patch Installer for the version you want.

- 6 Download the installer, which includes the application server installer and database installer for the latest version.

Meet the Requirements

You should meet all of the requirements needed for a Workspace ONE UEM installation, which are outlined in the **Workspace ONE UEM Recommended Architecture Guide** in case the requirements changed since you originally installed Workspace ONE UEM. In addition, if your device count has changed since the initial install, please reference this documentation to ensure that your systems are still compatible.

Note: As of AirWatch Version 9.2 we have changed our supported SQL versions. Check the latest list of prerequisites in the Recommended Architecture Guide to ensure that your current version is supported.

Note: Although it is not required on your database server, .NET is required to run the installer. To avoid installing .NET on your database server, and a potential reboot, you can run the installer from one of the Workspace ONE UEM application servers.

To ensure an uninterrupted installation of Workspace ONE UEM, temporarily disable active scanning for any anti-virus software running on the servers you are updating.

Prepare for Downtime

During the upgrade process, the Workspace ONE UEM console, enrollment, and device management will be down. For change window request purposes, the upgrade process typically takes a minimum of four hours. This number can vary based on the number of devices, number of services, and number of versions you are upgrading.

Contact Your On-Call Resources

Before you begin, ensure that you have the proper on-call resources available should you need them; such as technical resources - Database Analyst, Change Manager, Server Administrator, Network Engineer and MDM System Administrator.

Determine Your Workspace ONE UEM Version

Learn about how to obtain your current Workspace ONE UEM version. Determining what version of Workspace ONE UEM you are running allows you to correctly identify version-specific prerequisites and instructions.

Your database version, which you may need to know as part of the upgrade process, should be the same as your Workspace ONE UEM version. If it is not, then contact Workspace ONE Support.

- 1 Navigate to your Workspace ONE UEM console login page, or any other console page.

2 Select **About Workspace ONE UEM**.

The version you are running is listed in the ****Version**** field.

Dell Factory Provisioning Service Versions

Dell Provisioning for VMware Workspace ONE UEM requires on-premises customers to install the Factory Provisioning service onto an application server. Your Dell Factory Provisioning Service version must be compatible with your Workspace ONE UEM version.

Dell FPS v1909

When environments are upgraded to Workspace ONE UEM 1909, the FPS must also be upgraded to v1909. The v1909 FPS installer can be found here: <https://resources.workspaceone.com/view/gn7wrl7bbbtwzttgsm3r/en>.

Workspace ONE UEM Upgrade Procedure Checklist

3

As you go through the upgrade process, having an ordered list of tasks helps ensure you complete all the steps required for a successful upgrade. Learn more about all the steps you can use track your progress as you upgrade your instance of Workspace ONE UEM.

Step	Task
Step 1:	Prepare for Your Upgrade
	Verify Site URLs
	Validate Directory Service Connectivity
	Check validity of your APNs Certificate
	Verify Hardware Requirements
	Perform SQL Preparations
	Verify SQL User Permissions
	Stage your Installer files on all servers
Step 2:	Stop All Websites and Services on All Console and Device Services Servers
	Stop Application Server Services
Step 3:	Backup the Workspace ONE UEM Database and VM Snapshot the Device Services and Console Servers
	Back up the Workspace ONE UEM Database
	Back up the Workspace ONE UEM console and Device Services Server (if your servers are virtualized)
Step 4:	Upgrade Your Workspace ONE UEM Database, Console Server, and Device Services Server
	Upgrade to latest database version
	Update API Keys (for 1810+)
	Run the Workspace ONE UEM Application Installer
	Run the latest patch installer
Step 5:	Validate the Upgrade
	Verify Workspace ONE UEM Services are Running
	Verify the Installation
	Validate Custom Administrator Roles
	Verify Directory Service Settings
	Verify the Site URLs

Step	Task
	Validate GEM Functionality
	Complete the Post Upgrade Checklist

Prepare for Your Upgrade

4

Before you begin your Workspace ONE UEM upgrade, make sure you meet all software and hardware requirements, and that all prerequisites have been completed. Learn more about software and hardware requirements, and how to best prepare your environment for the Workspace ONE UEM upgrade.

The first step of the upgrade process is to take note of your existing Workspace ONE UEM console configurations to ensure that everything is set up and functioning properly before the upgrade procedure. This also includes verifying that you meet the minimum hardware requirements and have the appropriate SQL permissions.

This chapter includes the following topics:

- [Meet the Hardware and Software Requirements](#)
- [Verify Workspace ONE UEM Configurations](#)
- [Perform SQL Preparations](#)

Meet the Hardware and Software Requirements

Meet the requirements needed for a Workspace ONE UEM installation. You can find the hardware, software, and network requirements in the Workspace ONE UEM Recommended Architecture Guide. If your device count has changed since the initial install, reference this documentation to ensure that your application and database servers still meet the minimum requirements.

Important: Do not uninstall previous versions of Workspace ONE UEM software, including Identity Manager and the UEM console. The upgrade process automatically overwrites the relevant files. Uninstalling existing versions deletes previous configurations from your deployment.

Verify Workspace ONE UEM Configurations

Part of preparing your environment for upgrade includes verifying all Workspace ONE UEM configurations have been set according to your specific environment. Learn more about how to verify your Workspace ONE UEM configurations.

- 1 Log in to the Workspace ONE UEM console and navigate to **Groups & Settings > All Settings > System > Advanced > Site URLs**. Verify the following Site URLs are correct:
 - a The **Console URL** should be "https://{CONSOLE_URL}/AirWatch, where {CONSOLE_URL} is the URL of your UEM console Server.
 - b The **Device Services URL** should be "https://{AW_DS_URL}/DeviceServices, where {AW_DS_URL} is the URL of your Device Services server.
 - c The **REST API** should be "https://{AW_API_URL}/API, where {AW_API_URL} is the URL of your API server.
 - d For a typical configuration, nothing should appear as "localhost" except for the Google Play Service URL.
- 2 Navigate to **Groups & Settings > All Settings > System > Enterprise Integration > Directory Services**.
- 3 Select the **Test Connection** button to verify connectivity.
- 4 Navigate to **Groups & Settings > All Settings > Devices & Users > Apple > APNs for MDM**. Double-check the expiration date of your APNs certificate and ensure it does not expire before the upgrade procedure completes.
- 5 Navigate to **Hub > Reports & Analytics > Reports > List View** and try running a report (for example, Admin User Roles) to ensure reports are working correctly.

Perform SQL Preparations

Before beginning the Workspace ONE UEM upgrade procedures, verify that your SQL database is configured correctly. Learn how to ensure your SQL User has the database db_owner role selected.

- 1 Open SQL Server Management Studio.
- 2 Log in to the DB server containing the Workspace ONE UEM database.
- 3 Locate your DB user in the Object Explorer by navigating to **Security > Logins > [Your DB User]**, right-click, and select **Properties**.
- 4 Navigate to the **Server Roles** tab. Set the server role as **Public**.
- 5 Select **User Mapping..** Select the Workspace ONE UEM Database. Then, select the **db_owner** role. For a successful installation, you must ensure that the SQL User you are planning to run the Workspace ONE UEM Database Script with has the database db_owner role selected.
- 6 Select the msdb database. Then, select the **SQLAgentUserRole** and **db_datareader** roles.

In the event that higher permissions were used for the installation of Workspace ONE or selected during an upgrade please ensure those permissions are carried forward for future upgrades.

- 7 Stage all the Upgrade files on the Application Servers

Back Up Workspace ONE UEM Databases and Servers

5

Before you upgrade Workspace ONE UEM, create a backup of your databases and servers to protect your business critical data in the event of a failure. Learn more about backing up the Workspace ONE UEM Database, console, and Device Services Servers.

After stopping the appropriate services, you are ready to perform a back up of your components. This ensures you have an effective restore point should you need to roll back your deployment at any time.

CAUTION: Workspace ONE UEM does not back-up your servers as part of the upgrade process. Please contact your server vendor to follow the best practices for backing up your servers. The following sections offer some basic guidance but your procedures may vary. You are responsible for creating backups of your Workspace ONE UEM servers. Failure to do so can result in unrecoverable data loss.

This chapter includes the following topics:

- [Back up the Workspace ONE UEM Database](#)
- [Back up the Workspace ONE UEM console and Device Services Servers](#)

Back up the Workspace ONE UEM Database

Back up your Workspace ONE UEM database to protect all business critical data in the event of an upgrade failure. Learn more about how to use the SQL Server Management Studio to protect the critical data on your database.

- 1 Make sure to stop all the Workspace ONE UEM services and websites
- 2 Open the **SQL Server Management Studio**.
- 3 Log into the DB server containing the Workspace ONE UEM database.
- 4 Find the Workspace ONE UEM database in the Object Explorer on the left, right-click and choose **Tasks > Backup**.
- 5 Specify a backup location and type, and then select **OK** to complete the database backup.

Back up the Workspace ONE UEM console and Device Services Servers

If your Workspace ONE UEM console and Device Services Servers are virtualized, you should perform an app server backup in case your upgrade fails or you need to restore the servers later. Learn how to backup your console and server using VMware vSphere Client.

- 1 Open up the **VMware vSphere Client** and log-in.
- 2 Locate and select the UEM console or DS server on the left, then press the **Take a Snapshot** button at the top.
- 3 Specify a snapshot name, description, and confirm that:
 - a **Snapshot the virtual machine's memory** is checked.
 - b **Quiesce guest file system** is unchecked.

Stop Workspace ONE UEM Services

6

Similar to when you restart your personal device, you must stop the Workspace ONE UEM Services before you backup your servers. Learn more about what Services need to be disabled and when they can be turned back on.

After staging the appropriate files, you are almost ready to back up your servers. However, to back up all the necessary components, you must:

- Stop all Workspace ONE UEM Services on each application server (Console, Device Services, API).
- Stop the Workspace ONE Intelligence Connector service on the Workspace ONE Intelligence Connector server.
- Disable Internet Information Services (IIS) websites on each each application server (Console, Device Services, API).

By disabling these, Workspace ONE UEM is effectively down and the database can be upgraded without interference.

Note: SEG, VMware Tunnel, and VMware AirWatch Cloud Connector are considered auxiliary components and you do not need to stop their services as part of this step.

Restart all services and components after the upgrade completes.

This chapter includes the following topics:

- [Disable the World Wide Web Publishing Service](#)
- [Start the Workspace ONE UEM Application Installer](#)

Disable the World Wide Web Publishing Service

Before starting the Workspace ONE UEM upgrade process, you must stop and disable the World Wide Web Publishing Service. Learn about how to disable the World Wide Web Publishing Service and what to do next.

- 1 Open the **Server Manager**.
- 2 Navigate to **Tools > Services**.
- 3 Scroll to the bottom until you see the **World Wide Web Publishing Service**.

4 Right-click **World Wide Web Publishing Service**.

5 Select **Properties** and select **Disable**.

After disabling the World Wide Web Publishing Service, run the Workspace ONE UEM Application Installer on all of your Workspace ONE UEM application servers. The installer stops all the services on the App server automatically.

Start the Workspace ONE UEM Application Installer

Once the World-Wide Web Publishing Service has been stopped, now you can begin running the Workspace ONE UEM Application Installer on all of your Workspace ONE UEM application servers. Learn about how to run the installer and what to do next.

After stopping and disabling the World-Wide Web Publishing Service, start the Workspace ONE UEM Application Installer on all of your Workspace ONE UEM application servers. The installer stops all the services on the App server automatically.

1 On each application server, open the application folder and run the **Workspace ONE UEM Application X.X.X Full Install.exe**. Execute the Workspace ONE UEM installer from an account with administrator privileges.

If you do not have administrative privileges, right-click and choose **Run as Administrator** to run the installer.

2 The installer installs pending server prerequisites, if any. Certain software components you might be prompted to download, such as .NET and TLS, require a reboot. Proceed with the installer until finished and reboot when you are done.

3 If requested, reboot the server. Once the server reboots, the Workspace ONE UEM Application Installer restarts automatically. If not, restart the installer to continue. The installer continues installing any prerequisites. When finished, a prompt displays asking you to update your Workspace ONE UEM database.

4 Do not select **Yes** until the database upgrade has successfully completed. When the upgrade completes successfully, click **Yes** to continue.

5 If the database upgrade fails, select **No** to cancel the upgrade and contact Workspace ONE UEM Support for assistance.

Upgrade Database, Console Server, and Device Services Server

7

After running the installed on all your Workspace ONE UEM Applications, now you can upgrade your databases, consoles, and device services servers. Learn more about how to upgrade these different aspects of your Workspace ONE UEM platform and also about patching upgrades.

CAUTION: Before continuing with the following steps, ensure that you have properly backed up your Workspace ONE UEM database. If you have not properly backed up your database server and an error occurs during the upgrade process, you might lose all your Workspace ONE UEM data and you must begin your deployment of Workspace ONE UEM again.

Follow the applicable procedure to upgrade to the latest version of Workspace ONE UEM depending on your current version. You can find out which version you are running by opening the Workspace ONE UEM console and selecting **About Workspace ONE UEM** from the bottom left corner.

If you are on a database version older than AirWatch v9.3, then reference previous versions of the Upgrade Documentation, which include instructions for bringing older versions up to date.

This chapter includes the following topics:

- [Upgrade the Workspace ONE UEM Database](#)
- [Upgrade Workspace ONE UEM Servers](#)
- [Perform a Patch Upgrade](#)

Upgrade the Workspace ONE UEM Database

Part of the Workspace ONE UEM upgrade process includes upgrading your databases to ensure they have access to the highest level of security, the newest features and options. Learn more about upgrading your Workspace ONE UEM Database.

- 1 Verify that you are using the correct Windows authentication credentials.

If you are not using the Windows authentication credentials of the current user to connect to the database you are installing to, you will need to either:

- Shift+right-click to run as a different user and log in as the Windows account you are using to authenticate.

- Log into the server as the Windows account you are using to authenticate, if you have not already.

2 From a server connected to the database, perform the following:

- a Open the **Workspace ONE UEM Database XXXX Setup.exe** executable by right-clicking and running as administrator, where XX is the next Workspace ONE UEM version from the one you are running.

Certain software components you might be prompted to download, such as .NET and TLS, require a reboot. Workspace ONE UEM recommends proceeding with the installer until finished and rebooting when you are done.

- b If your server is missing any essential components, the DB installer will automatically prompt you to install them. The DB installer requires .NET 4.8 to run. If you do not want to install .NET on your SQL server, you can run the installer from the application server. When complete, select **Next**.
- c Accept the Workspace ONE UEM EULA and select **Next**.
- d Select a location to install the Workspace ONE UEM Database Files. Best practice is to install wherever the Workspace ONE UEM folder exists on your system. Click **Next**.
- e Review the information about the Workspace ONE UEM database: specifically, the server name, the user account with correct privileges, and the database name. Once complete, select **Next**.
- f You will be warned to make sure that your user account has enough permissions. Select **OK**.
- g Select **Install** to begin the database installation process.
- h Once the database upgrade process has completed, select **Finish**.

Note: For full instructions on a deployment using SQL Always On, see the Install Guide from [http:// docs.vmware.com](http://docs.vmware.com).

Upgrade Workspace ONE UEM Servers

Once you have finished upgrading the database, you can now run the installer on each Workspace ONE UEM console and Device Services Server to complete the upgrade process. Learn more about upgrading the Workspace ONE UEM Servers.

Resume the installer on each server and complete the Wizard.

For deployments with dedicated API and AWCM servers:

- Dedicated API and AWCM servers are considered application servers, similar to the UEM console and Device Services. You should therefore perform the steps below on these servers if you have dedicated servers for these components.

- On each of your Console and Device Services servers, run the **Workspace ONE UEM Application XXXX Full Install.exe** by right-clicking and running as administrator. The installer detects a previous version of Workspace ONE UEM and prompts you to upgrade. During this process, the Workspace ONE UEM Installer will stop IIS and all Workspace ONE UEM services and prompt the administrator to update the Workspace ONE UEM database. However, since you have already upgraded the database scripts, you can continue without taking any extra actions.

The upgrade process does not differ from the installation process. The values and settings you configured for your Workspace ONE UEM installation should be automatically populated, meaning you can verify them and select Next through the installer. For specific details on each of these installer screens, refer to the Workspace ONE UEM Installation Guide.

Perform a Patch Upgrade

When you have the most recent version of Workspace ONE UEM installed on your database, console servers, and device services, it is still necessary to install the most recent patch upgrades to ensure you have the most recent security updates, bug fixes, and other options. Learn more about where to get the patch installer and how to run it across your Workspace ONE UEM platform.

Make sure you have fully installed Workspace ONE UEM on your database, console servers, and device services servers before attempting a patch upgrade.

- 1 Download the most current Patch Installer.

The Patch Installer files can be downloaded from <http://my.workspaceone.com> by navigating to **Menu > Software > Console**.

- 2 Unzip the Patch Installer.

- 3 Follow the instructions for implementing the patch located in the **##.##.##_Deployment_Instructions.txt** file. (##.##.## is UEM version and Patch number associated with the update)

Workspace ONE UEM Post-Upgrade Validation



After you complete the upgrade procedure, verify that the Workspace ONE UEM services are started and that you successfully upgraded Workspace ONE UEM. Learn about how to verify the upgrade completed successfully and that all your services and components have been upgraded.

This chapter includes the following topics:

- [Verify Workspace ONE UEM Services Are Running](#)
- [Verify the Upgrade](#)
- [Post-Upgrade Checklist](#)
- [If Problems Are Detected After the Upgrade](#)

Verify Workspace ONE UEM Services Are Running

The first post-upgrade step is to verify that all Workspace ONE UEM services have started back up. Learn more about how to verify the post-upgrade status of your Workspace ONE UEM Services.

The Workspace ONE UEM installer properly configures the associated Windows services, the start type and recovery options for each service should not be modified. If services are not automatically restarted, use Windows Services Manager to reset Windows Services to Automatically Delayed Start.

After a typical upgrade, open the Windows Services Manager to verify that the installed component services are running.

- 1 Open the **Server Manager**.
- 2 From the left pane, select your local server and navigate to **Tools > Services**.
Workspace ONE UEM Services is at the top of the services list in alphabetical order. Each of these services start with Workspace ONE in the name.
- 3 Verify that each of these services show **Started** as the Status.
- 4 Verify the **World Wide Web Publishing** service is **Started**.

Verify the Upgrade

After you have validated that your Workspace ONE UEM Services are running, there are other verification steps to ensure that the upgrade completed successfully on the rest of your Workspace ONE UEM platform. Learn more about these verification steps and what to do next.

- 1 First, validate your Administrator Roles.
 - a Log in to the Workspace ONE UEM console and navigate to **Accounts > Administrators > Roles**.
 - b Verify that the update did not remove any of your custom administrator roles. If they are missing, recreate them manually.
- 2 Next, verify your Directory Service settings.
 - a Navigate to **Groups & Settings > All Settings > System > Enterprise Integration > Directory Services**. Select the **User** tab.
 - b Select **Show Advanced**. Verify that **Auto Merge** is selected. Select the **Group** tab.
 - c Select **Show Advanced**. Verify **Auto Sync** and **Auto Merge** are checked.
 - d Workspace ONE UEM recommends a minimum of **100** for the Maximum Allowable Changes. That way, the Console does not need to sync with your directory service as much.
- 3 Next, verify the Site URLs.
 - a Navigate to **Groups & Settings > All Settings > System > Advanced > Site URLs**.
 - b Verify the **REST API URL** and **Sync Appcast URL** are configured correctly:

```
|**Console URL**|"https://\{CONSOLE\_URL\}/AirWatch", where \{CONSOLE\_URL\} is the URL
of your UEM console Server|
```

```
|**Device Services URL**| "https://{AW_DS_URL}/DeviceServices", where {AW_DS_URL} is
the URL of your Device Services server| |**REST API URL**| "https://{AW_API_URL}/API",
where {AW_API_URL} is the URL of your API server| |**SCL Sync Appcast URL**| "https://
{AW_DS_URL}/DeviceServices/AirWatchSyncAppcast.xml", where {AW_DS_URL} is the
URL of your Device Services server| |**MdmAgentAppcast URL**| "https://{AW_DS_URL}/
DeviceServices/AirWatchAgentAppcast.xml", where {AW_DS_URL} is the URL of your
Device Services server| |**Outlook Add-In SCL Appcast URL**| "https://{AW_DS_URL}/
DeviceServices/OutlookSCLAppcast.xml", where {AW_DS_URL} is the URL of the Device
Services server| |**SCL Appcast URL**| "https://{AW_DS_URL}/DeviceServices/
SCLAppcast.xml", where {AW_DS_URL} is the URL of the Device Services server. Nothing
should appear as "localhost" except for the Google Play Service URL|
```

- 4 Next, validate GEM Functionality.
 - a In your Console server, navigate to **AirWatch Root>\Logs\Services**. Delete the AirWatchGemAgent.txt file.

- b Open the **Server Manager**.
- c From the left pane, select Local Server and navigate to **Tools > Services**.
- d At the top of the services list, all Workspace ONE UEM Services are displayed in alphabetical order. Each service starts with Workspace ONE UEM in the name. For the **GEM Inventory Service**, right-click and select **Restart**.
- e Check your [Install Directory]\Logs\Services\ folder to see if a log regenerates. If a log regenerates with errors, contact Workspace ONE Support for further assistance. If you do not see a log file in this folder, then it is not necessary to contact Workspace ONE Support.

Post-Upgrade Checklist

Each component of Workspace ONE UEM has its own verification steps to ensure that they were upgraded successfully. Learn more about which components need upgrade verification, their functionality within Workspace ONE UEM, and how to verify.

Status	Functionality	Verification
Workspace ONE UEM console Testing		
	Directory Services	Navigate to Groups & Settings > All Settings > System > Enterprise Integration > Directory Services and select Test Connection.
	Email (SMTP)	Navigate to Groups & Settings > All Settings > System > Enterprise Integration > Email (SMTP) and select Test Connection.
	AWCM	Attempt to access "https://<AWCM URL>:<port>/awcm/status", where <AWCM URL> is the URL of your AWCM and <port> is the port you configured it on. If functioning correctly, you see an "OK" status message.
	Devices are checking in	Verify on the Devices > List View page that devices are checking in by looking at the Last Seen column.
	Console Access using LDAP	Verify that AD or LDAP users work by logging into the Console with one (if applicable).
	Executing a Report	Try running an Admin User Roles report by navigating to Hub > Reporting & Analytics > Reports > List View .
	Content Management (if applicable)	Try downloading a piece of content from a device.
iOS device testing		
	Enrollment	Try enrolling an iOS device.
	Sending Commands (for example, Device Lock)	Try sending a command to an enrolled iOS device.
	Create and Push Profile	Try creating and sending a profile from the Console to an iOS device.
	Create and Push Application	Try to create and send an application from the Console to an iOS device.

Status	Functionality	Verification
Android device testing	Public Applications	Try to recommend a public application from the Console to an iOS device.
	Internal Applications	Try to push an internal application from the Console to an iOS device.
	Enrollment	Try enrolling an Android device.
	Sending Commands (for example, Device Lock)	Try sending a command to an enrolled Android device.
	Create and Push Profile	Try creating and sending a profile from the Console to an Android device.
	Create and Push Application	Try to create and send an application from the Console to an Android device.
	Public Applications	Try to recommend a public application from the Console to an Android device.
	Internal Applications	Try to push an internal application from the Console to an Android device.
	Device Check-In	Verify that Windows Mobile devices are checking in after the upgrade process.
	Create and Push Provisioning Product	Try to create and push a provisioning product to a Windows Mobile device.
Windows Rugged device testing	AWCM Testing	Verify on the Device Details page for a Windows Mobile device that AWCM is Connected.
	Remote Control	Try to activate Remote Control for a Windows Mobile device on the Device Details page. Ensure that Privacy Settings are enabled.
	Screenshot/Send Message	Try to take a screenshot or send a message Windows Mobile on the Device Details page.

If Problems Are Detected After the Upgrade

If during any of the verification steps listed above you are unsuccessful, verify the following:

- If all Workspace ONE UEM Services are up and running on the server with proper paths to the Workspace ONE UEM folder.
- If all Workspace ONE UEM Websites are listed in IIS.
- Windows Application Log shows any errors originated from the Workspace ONE UEM application.
- If any Workspace ONE UEM logs show any errors that have occurred.

- If you are still having problems and must contact Workspace ONE Support, have the earlier mentioned logs to expedite a resolution. Include the log from [Install Directory]\Database\AWDatabaseLog_MM-DD-YYYY_XX-XX-XX.txt.