

# Dell Command | Integration Suite for System Center

Version 5.0

User's Guide

## Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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# Introduction

This document describes the activities that you can perform with Dell Command | Integration Suite for System Center on systems running Microsoft System Center Configuration Manager.

## Topics:

- [What's New](#)
- [Key Features And Functionalities](#)
- [Supported System Center Configuration Manager Versions](#)
- [Supported Operating Systems](#)

## What's New

This release of Dell Command | Integration Suite for System Center supports the following new features:

- Added the ability to upgrade Intel Setup and Configuration Software from within the Dell Command | Intel vPro Out of Band application
- Added Software Gallery to allow creation and deployment of Dell system management applications
- Updated list of operating systems supported

## Key Features And Functionalities

Feature	Description
<b>Remote Provisioning</b>	Remotely perform AMT provisioning of Intel vPro-enabled clients.
<b>Configuring Windows Preinstallation (WinPE) environment</b>	Configure and push the customized operating system image on the client system. For more information on configuring the WinPE environment, see <a href="#">Creating A Dell WinPE Boot Image</a> .
<b>Creating and Importing Dell Client Driver Packages</b>	Using streamlined access to Dell's catalog of system and WinPE driver cab files, configure and push customized driver packages onto client system. For more information on creating Dell client driver packages, see <a href="#">Creating Dell A Client Driver Package</a> .
<b>Integration of Dell Command   Monitor</b>	Use Dell Command   Monitor features such as remote management applications, accessing managed node information, managing client state, and receiving alerts for client events. For more information on Dell Command   Monitor integration, see <a href="#">Importing Dell Command   Monitor</a> .
<b>Dell Command   Configure</b>	Configure the BIOS of Dell client systems such as OptiPlex, Latitude, and Dell Precision in an operating system-present environment using the Dell Command   Configure Self Contained Executable (SCE) package.
<b>Dell Command   Intel vPro Out Of Band Application</b>	An out-of-band management feature using Intel Active Management Technology (AMT). It is supported through a standalone application running on the Configuration Manager server. This feature provides the core functionality to manage client systems remotely and automatically regardless of the state of the operating system. For more information on Intel vPro Out Of Band Management, see <a href="#">Dell Intel vPro Out of Band Plugin</a> .
<b>Dell Command   Warranty</b>	Collects the warranty information of Dell client computers from the Dell support website. For more information on the Dell Warranty Information Utility, see <i>Dell Command   Warranty User's Guide</i> at <a href="https://dell.com/support/manuals">dell.com/support/manuals</a> .

<b>Distribution points</b>	Simplified steps to manage and update the distribution points to push drivers and other application on to the client systems in your network.
<b>Dell Command   Software Gallery</b>	Select from list of currently available Dell system management applications and create them in Configuration Manager.

## Supported System Center Configuration Manager Versions

Dell Command | Integration Suite for System Center supports the following versions of Configuration Manager:

- Microsoft System Center 2012 Configuration Manager
- Microsoft System Center 2012 SP1 Configuration Manager
- Microsoft System Center 2012 R2 Configuration Manager
- Microsoft System Center Current Branch Configuration Manager

**i** **NOTE:** Dell Command | Integration Suite for System Center versions 4.0 and greater are not backward compatible with older versions of Microsoft System Center Configuration Manager. Dell recommends that you download and use Dell Client Integration Pack 3.1 (from [dell.com/download](http://dell.com/download)) with Configuration Manager 2007.

## Supported Operating Systems

The following lists the types and specific versions of operating systems supported by this application.

### Supported Client Operating Systems

- Windows 10 32-bit
- Windows 10 64-bit
- Windows 10 32-bit Professional
- Windows 10 64-bit Professional
- Windows 10 32-bit Enterprise
- Windows 10 64-bit Enterprise
- Windows 8.1 32-bit
- Windows 8.1 64-bit
- Windows 8.1 32-bit Professional
- Windows 8.1 64-bit Professional
- Windows 8.1 32-bit Enterprise
- Windows 8.1 64-bit Enterprise
- Windows 8 32-bit
- Windows 8 64-bit
- Windows 8 32-bit Professional
- Windows 8 64-bit Professional
- Windows 7 32-bit Professional
- Windows 7 64-bit Professional
- Windows 7 32-bit Ultimate
- Windows 7 64-bit Ultimate

### Supported Operating Systems on Managed Client Systems via AMT

- Windows 10
- Windows 8.x
- Windows 7

## Supported Server Operating Systems

- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012

# Using Dell Command | Integration Suite for System Center

Before you begin using Dell Command | Integration Suite for System Center, make sure that the target Dell client systems are registered as Configuration Manager clients and present under **All Systems** on the Configuration Manager console. For more information on configuring clients through Configuration Manager, see the Microsoft TechNet article at [technet.microsoft.com/en-us/library/gg682144](https://technet.microsoft.com/en-us/library/gg682144).

You can use Dell Command | Integration Suite for System Center to perform the following tasks:

- Create Dell Windows PE boot images
- Create Dell client driver packages
- Import Dell client packages
- Create a bare-metal task sequence

## Topics:

- [Managing And Updating Distribution Points](#)
- [Creating A Dell WinPE Boot Image](#)
- [Creating A Dell Client Driver Package](#)
- [Importing Dell Command | Configure SCE Packages](#)
- [Importing Dell Command | Monitor](#)
- [Creating A Task Sequence](#)
- [Configuring Task Sequence Actions](#)

## Managing And Updating Distribution Points

Update the distribution points before creating a task sequence. To update and manage distribution points:

1. Launch the Configuration Manager console.
2. Click **Software Library**.
3. Expand **Overview > Application Management > Packages** and click **Dell Client Deployment**.
4. Right-click **Client Custom Reboot Script** and click **Distribute Content**. The **Distribute Content Wizard** screen is displayed.
5. Click **Next** and follow the on-screen instructions to distribute content to the distribution points.
6. If the packages were not distributed while they were being created, repeat step 3 and step 4 to ensure that the client system is able to access the packages during an operating system installation.


## Creating A Dell WinPE Boot Image

The Dell Command | WinPE Driver Library Import feature allows you to create Dell Windows Preinstallation Environment (WinPE) boot images in two ways: using the streamlined, **Dell Update/Support site** import option to import up to five cab files at a time for automated injection into your WinPE boot image, or by using the **Local Driver Library** option to import the drivers included in one locally-stored cab file at a time.

**NOTE:** You must use an account that has administrator privileges in order to create a Dell WinPE Boot Image. User accounts without administrator privileges will encounter permission errors involving the SMS share and installation folder.

**NOTE:** If you are using the **Local Driver Library** option, you must download the Dell Command | Deploy (WinPE) Driver Library file from [dell.com/downloads](https://dell.com/downloads) before following the steps in this section. If you are using the **Dell Update/Support site** option to insert driver libraries into a WinPE package, you do not need to download the driver library file in advance of the process described below.




 **NOTE:** Ensure that Microsoft Windows Deployment Kit is installed before proceeding with this feature.

1. Launch the Configuration Manager console.
2. Click **Software Library**.
3. Expand **Overview > Operating Systems**.
4. Right-click **Boot Images** and click **Dell Command | WinPE Driver Library Import**. The **WinPE Driver Library Import Wizard** opens.
5. Select a driver library source:
  - **Dell Update/Support site**—Select either the **Use current internet proxy settings** or the **Use custom proxy settings** option. If you choose the custom option, also enter a proxy server URL or IP address and a proxy port number. If you are using proxy authentication, enter a username and, optionally, a password.


The Dell Command | Deploy Driver Pack Catalog and the applicable WinPE driver libraries are downloaded from the Dell support site.

*Or*

- **Local Driver Library**—Click **Browse** and navigate to a locally-stored Dell Command | Deploy Driver Package.
6. Click **Next**. The **Select Driver Libraries** screen opens, displaying the driver libraries contained in the selected \*.cab file(s). Sort the driver libraries table by clicking any column header.

 **NOTE:** The list of driver libraries displayed is based on the operating system version equal to or one version less than the default Configuration Manager boot image.
  7. Select up to two driver libraries, and then click **Next**. The **Select Options** screen opens.
  8. Select the boot images into which you want to insert the drivers.
  9. Select the target distribution points to which you want to distribute the boot image automatically once the Dell drivers have been inserted into the WinPE boot image package.


For more information, see [Managing And Updating Distribution Points](#)
  10. Under **Specify a UNC destination path**, click **Browse** and then navigate to a location at which to store the Dell WinPE boot images. To replace your changes with the default UNC path, click **Restore to default path**.
  11. To **Optionally specify a tools .zip file (max 5MB)**, click **Browse** and navigate to a zip file containing the Dell WinPE tools.
  12. Click **Next**. The **Summary** screen is displayed.
  13. Click **Finish**. A progress bar displays the import and Dell WinPE boot file creation status.

 **NOTE:** Importing drivers may take a long time, especially if you are importing multiple driver packages.

A log file of the import process is maintained at %PROGRAMDATA%\Dell\CommandIntegrationSuite\Logs\DriverPackageLogs for troubleshooting purposes unless you enter a tick in the **Delete WinPE boot image logs for this session** check box.
  14. When the process has completed, click **Close**. The WinPE boot image is updated to include the selected Dell drivers.

## Creating A Dell Client Driver Package

The Dell Command | Deploy Driver Package feature allows you to import drivers and create Dell client driver packages in two ways: import and package the drivers included in one locally-stored file at a time, or use the streamlined, multiple-cab file import option, Dell Command | Deploy Catalog.

 **NOTE:** You must use an account that has administrator privileges in order to create a Dell Client Driver Package. User accounts without administrator privileges will encounter permission errors involving the SMS share and installation folders.

1. Launch the Configuration Manager console.
2. Click **Software Library**.
3. Expand **Overview > Operating Systems**.
4. Right-click **Driver Packages** and click **Dell Command | System Driver Library Import**. The **System Driver Library Import Wizard** opens.

5. Select a driver library source:
  - **Dell Update/Support site**—Select either the **Use current internet proxy settings** or the **Use custom proxy settings** option. If you choose the custom option, also enter a proxy server URL or IP address and a proxy port number. If you are using proxy authentication, enter a username and, optionally, a password.

The Dell Command | Deploy Driver Pack Catalog is downloaded from the Dell support site.

Or

- **Local Driver Library**—Click **Browse** and navigate to a locally-stored Dell Command | Deploy Driver Package.
6. Click **Next**.  
The **Select Driver Libraries** screen opens, displaying the driver libraries contained in the selected cab file(s).
  7. Sort the driver libraries table by clicking any column header, and then use the filters to limit the number of driver libraries displayed in the table. Filter fields are:
    - Operating System
    - Architecture
    - Line of Business (LOB)
    - Release Date range
  8. Click **Filter** to apply the selected limits on the available driver libraries.
  9. Select one to five driver libraries, and then click **Next**.  
The **Select Options** screen opens.
  10. Select the target distribution points to which you want to distribute the driver package automatically once it is created.  
For more information, see [Managing And Updating Distribution Points](#)
  11. Under **Specify a UNC destination path**, click **Browse** and then navigate to a location at which to store the Dell driver packages. To replace your changes with the default UNC path, click **Restore to default path**.  
**NOTE:** For Microsoft Windows XP operating systems, the **Storage Driver Package** option in the **Task Sequence Editor** is enabled. Select the appropriate storage driver during Microsoft Windows XP system deployment to avoid a continuous reboot with the following error: 0x0000007B (INACCESSIBLE\_BOOT\_DEVICE). For more information on the appropriate storage driver selection, see the Dell TechCenter site at [delltechcenter.com](http://delltechcenter.com).
  12. Click **Next**.  
The **Summary** screen is displayed.
  13. Click **Finish**.  
A progress bar displays the package creation and deployment status. Driver packages are created and stored under the Dell System CAB Driver Packages folder according to the operating system architecture selected.  
**NOTE:** Importing drivers may take a long time, especially if you are importing multiple driver packages.
  14. When the process has completed, click **Close**.

## Importing Dell Command | Configure SCE Packages

Dell Command | Configure Self-Contained Executable (SCE) file allows you to:

- Customize configurations
- Export a customized configuration to apply the same settings on a target client system
- Export both supported and unsupported options
- Customize your BIOS configuration

To import Dell Command | Configure SCE packages:

1. Launch the Configuration Manager console.
2. Click **Software Library**.
3. Expand **Overview > Application Management**.
4. Right click **Packages**, then click **Dell Command | Integration Suite > Import Dell Command | Configure Package**.  
The **Dell Command | Configure Package Import Wizard** screen is displayed.
5. Click **Browse** and navigate to the location of the Dell Command | Configure SCE file.  
**NOTE:** The Dell Command | Configure SCE file is generated by exporting customized settings from the Dell Command | Configure. For more information, see *Dell Command | Configure User's Guide* on [dell.com/support](http://dell.com/support).

6. Select a distribution point from the list available under **Select the distribution points to manage and update** to distribute the package automatically once it is created.
7. Click **OK**.

If a package already exists in the Configuration Manager, a message is displayed asking if you want to recreate or continue. If you select **No**, the process does not recreate the package. Otherwise, the package is removed from Configuration Manager, and a new package is created.

**NOTE:** If the following error message is displayed **Invalid SCE file**, then select a valid SCE package in step 5.

When the process is complete, a new package is created.

**NOTE:** To see the details of the newly created package, browse to **Packages > Dell Client Packages** on the Configuration Manager console. The newly created package is under Dell Client Packages.

8. After the wizard completes, the Dell Command | Configure SCE Software Package is created under **Packages**. Associate these packages with a task sequence for pre-OS deployment, or use them during post-OS configuration.

## Importing Dell Command | Monitor

To import Dell Command | Monitor:

1. Download the **Dell Command | Monitor** application from [dell.com/download](http://dell.com/download).
2. Launch the Configuration Manager console.
3. Click **Software Library**.
4. Expand **Overview > Application Management**.
5. Right click **Packages**, then click **Dell Command | Integration Suite > Import Dell Command | Monitor Package**. The **Dell Command | Monitor Package Import Wizard** screen is displayed.
6. Under **Specify the Dell Update Package (DUP) file to create the package** click **Browse** navigate to the location where you have downloaded the Dell Command | Monitor DUP file, select it and click **Open**.
7. Select a distribution point from the list available under **Select the distribution points to manage and update** to distribute the Dell Command | Monitor DUP file automatically after it is created.
8. Click **Ok**.  
A progress bar is displayed.
9. Click **Close**.  
The **Dell Command | Monitor** DUP file is installed under **Packages**.

## Creating A Task Sequence

Task sequences are used to capture an operating system image, configure its settings, and deploy the image on a set of Dell client systems. You can create a task sequence in two ways:

- Create a Dell-specific task sequence, which has a set of pre-specified actions, using the **Client Operating System Deployment Task Template** template.
- Create a custom task sequence where you can add custom actions to the task sequence.

## Creating A Task Sequence Using The Dell Client Deployment Template

To create a task sequence using the Dell Client Deployment template:

1. Launch the Configuration Manager console.
2. Click **Software Library**.
3. Expand **Overview > Operating Systems**.
4. Right-click **Task Sequences**, then click **Dell Command | Integration Suite > Create Operating System Deployment Task Sequence**.  
The **Client Operating System Deployment Task Template** window is displayed.
5. Enter the name of the task sequence in **Task Sequence Name** field.
6. Under **Client Hardware Configuration**, select the hardware items that you want to configure in this task sequence.

**NOTE:** If you select the **Configure BIOS** check box and a Dell Command | Configure package has been previously created, then a task sequence template is created while configuring the system BIOS. The Dell Command | Configure package is selected by default and the command line to run the SCE on the target system is populated automatically. However, if a Dell Command | Configure package has not been created then a message that no Dell Command | Configure package has been detected is displayed. You can still configure the system BIOS but a package will not be selected.

- Under **Network (Admin) Account**, enter the domain administrator account name and password.
- Under **Operating System Installation**, select the operating system installation type. The options are:
  - Use an OS WIM image
  - Scripted OS install
- Select an operating system package from the **Operating system package to use** drop-down menu.
- If deploying Windows XP operating system, select the **sysprep.inf** info file from the **Package with Sysprep.inf info** drop-down menu.
- Click **Create**.  
A confirmation message is displayed.

## Configuring Task Sequence Actions

To edit the actions in a task sequence, select **Client Operating System Deployment Task Template** from the Task Sequence Editor.

## Configuring The System BIOS

The **Configure BIOS** option is enabled on the task sequence after adding **Dell Client Configuration**. Make sure that Dell Command | Configure version 3.0 or later is installed on the target system to create a BIOS Package.

**NOTE:** While configuring the BIOS, if more than one Dell Command | Configure package exists, then the latest Dell Command | Configure package is selected. Older packages are available under **Dell Client Packages**. To select an older package, click **Browse** and select the older package while configuring the task sequence. For more information on creating a task sequence, see [Creating a Task Sequence](#).

**NOTE:** Switching the client-systems **Boot Modes** (both UEFI or Legacy BIOS) is not supported through the Task Sequence Editor. For more information, see [technet.microsoft.com/en-us/library/jj938037.aspx](http://technet.microsoft.com/en-us/library/jj938037.aspx).

## Exporting The BIOS Configuration File

Launch the Dell Command | Configure standalone application. For more information, see the *Dell Command | Configure User's Guide* at [dell.com/support](http://dell.com/support).

## Prerequisites For Exporting

The following are the prerequisites for exporting:

- The BIOS options is configured.
- The **Apply Settings** check box of the option is selected.

Export the configuration in the following formats:

- Self-Contained Executable (SCE)** — Click **Export Configuration.exe** on the **Create Configuration** screen to export the configuration settings as an SCE (.exe file).

A **Validation Password** dialog box is displayed prompting the user to provide an optional password. If you have configured the system or setup password in the target system, type the same system or setup password in the **Validation Password** dialog box.

- Report** — Click **Export Report** to export the configuration settings as a read-only \*.html file. If you have configured the system or setup password in the exporting file, see [Password Protection Dialog Box](#).
- Configuration file** — Click **Export Configuration** to export the configuration settings as a \*.cctk or \*.ini file. If you have configured the system or setup password in the exporting file, see [Password Protection Dialog Box](#).

- **Shell script** — The shell script is used to configure a Linux system. The shell script is generated at the same location to which the SCE file is exported, and contains the same configuration as that of the SCE file.

## Exporting Options Without Setting Values

You can export certain options without specifying any values. The options are **asset** and **propowntag**.

To export **asset** and **propowntag** without specifying any values, select the **Apply Settings** check box of the corresponding option and export.

## Password Protection Dialog Box

If you have configured the system or setup password in the exporting file (configuration file or report), a password protection dialog box is displayed. To export the file with the password as clear text, click **Continue**. To hide the password and export, click **Mask**. If you have chosen to hide the password in the configuration (.cctk or .ini) file, the **setuppwd** is displayed as **<password removed>** indicating that password is hidden.

## Applying SCE On The Target System

You can apply SCE on the target system in one of the following ways:

- Using the Dell Command | Configure application package. For more information, see [Importing Dell Command | Configure SCE Packages](#).

or

- Using the Dell Command | Configure standalone application. For more information, see [Using the Standalone Application](#).

## Using The Standalone Application

You can apply SCE on the target system using the Dell Command | Configure standalone application in one of the following ways:

- Double-click the SCE, or
- From the command prompt, navigate to the directory where SCE is located, and type the name of the SCE file.

Example:

```
C:\Windows\DCC\SCE><filename>
```

SCE silently installs the settings on the target system. When the installation completes, SCE generates a text file with the same name at the same location. The text file contains all the applied options and the status of execution for the SCE file.

If you have configured a setup or system password on the target system, and if you have not provided the same password in the **Validation Password** dialog box while exporting SCE, (for more information, see [Exporting The BIOS Configuration File](#)), SCE cannot be applied on the target system. However, while applying SCE from the command prompt, you can provide the setup or system password of the target system.

Example of providing setup password:

```
C:\Windows\DCC\SCE><filename> --valsetuppwd=<password string>
```

Example of providing system password:

```
C:\Windows\DCC\SCE><filename> --valsypwd=<password string>
```

## Apply Operating System Image

**NOTE:** Before you begin this task, ensure that you have the required operating system image file (.wim file) under the **Operating System Images** tree in Configuration Manager.

To apply operating system image:

1. From the left-hand side of the **Task Sequence Editor**, under **Deploy Operating System**, click **Apply Operating System Image**.
2. Choose from the following options:
  - Apply operating system from a captured image
  - Apply operating system from an original installation source
3. Click **Browse** and select the operating system image or package.
4. Under **Select the location where you want to apply this operating system** select the **Destination** and **Drive Letter**.
5. Click **OK**.

You have successfully applied an operating system image.

## Apply Driver Packages

To apply driver packages:

1. From the left side of the **Task Sequence Editor**, under **Deploy Operating System**, click **Apply Driver Package**.
2. **Browse** and select the **Dell Client Driver Packages**. The list of driver packages available in the **Dell Deployment Pack** is displayed.
3. Select a package for your Dell client system and click **Apply**.

You have successfully added drivers.

# The Dell Command | Intel vPro Out Of Band Application

The Dell Command | Intel vPro Out of Band application provides an out-of-band management solution through a stand-alone application on the system running Dell Command | Integration Suite for System Center. The application allows you remotely to manage client systems regardless of the system power or operating state.

You can use the Dell Command | Intel vPro Out of Band application to perform the following tasks:

- **Remote Provisioning**— Configure your environment to allow you to easily perform remote AMT provisioning of client systems
- **USB Provisioning** — Provision and setup Intel AMT enabled client systems
- **Indications** — Remotely monitor, diagnose, and manage clients using Distributed Management Task Force (DMTF) filters
- **Client Configuration** — Configure client system settings:
  - **Power Profile** — Configure and apply the preferred power policy
  - **Boot Order** — Configure or change the boot order
  - **BIOS Settings** — Configure and update the BIOS settings
  - **BIOS Passwords** — Clear, set, or specify the length of your **Administrator** and **System** passwords
- **Operations** — Perform remote operations:
  - **KVM Connect** — Set up and run KVM sessions
  - **Power Management** — Remotely manage power settings
  - **Wipe Client Data** — Remotely format client hard drives
- **Reports** — Generate reports for out-of-band manageability, provisioned systems, battery health, and hardware inventory.
- **Task Queue** — Monitor task progress and details

## Topics:

- [Software Prerequisites](#)
- [Configuring WinRM on Client Systems](#)
- [Launching The Dell Command | Intel vPro Out of Band Application](#)
- [Account Setup](#)
- [Client Discovery](#)
- [Settings](#)
- [Remote Provisioning](#)
- [USB Provisioning](#)
- [Indications](#)
- [Client Configuration](#)
- [Operations](#)
- [Generating Reports](#)
- [Task Queue](#)

## Software Prerequisites

Before running the Dell Command | Intel vPro Out of Band application:

- For In-Band shutdown to work correctly, the system running Dell Command | Integration Suite for System Center must have Windows Powershell version 2.0 or greater installed, and WinRM configured. For more information on configuring WinRM, see [Configuring WinRM on Client Systems](#).

# Configuring WinRM on Client Systems

If WinRM has not been configured on any client systems with which you are working that were not provisioned via the Remote Provisioning feature, do the following command at an administrative command prompt:

**i** | **NOTE:** Configure the client system's firewall to accept WinRM commands.

**i** | **NOTE:** To retrieve the current WinRM settings, use the following command: `winrm get winrm/config`. If you are using a Group Policy Object-controlled setting, the command will display this information.

1. Enter `winrm quickconfig`
2. Press `y` to continue if prompted **Do you want to configure winrm?**
3. `winrm set winrm/config/client @{AllowUnencrypted="true"}`
4. `winrm set winrm/config/client/auth @{Digest="true"}`
5. `winrm set winrm/config/client @{TrustedHosts="MANAGEMENT_SERVER_IP_ADDRESS"}`

The WinRM is configured.

**i** | **NOTE:** When you provision a client system via Remote Provisioning, WinRM is automatically configured on the client system.

# Launching The Dell Command | Intel vPro Out of Band Application

The Dell Command | Intel vPro Out of Band application is installed in following location by default: `C:\Program Files (x86)\Dell\CommandIntegrationSuite\DellCommandvProOutOfBand.exe`.

## Account Setup

The **Account Setup** window displays the first time you launch the Dell Command | Intel vPro Out of Band application. From here you can configure the following settings:

- Retrieve and select an available **Configuration Manager SQL Server** option from a drop-down list
- Select the type of SQL Server Security (Integrated or Username/Password) you want to set
- Retrieve and select an available **Configuration Manager Database** from a drop-down list
- Configure **Operating System User Account** settings
- Configure **AMT Administrative User Account** settings

## Client Discovery

When you initially launch the Dell Command | Intel vPro Out of Band application, and right after you configure your Account Setup settings, the software performs the following actions:

- Updates the Configuration Manager .mof file and adds a Dell hardware inventory class to Configuration Manager.
- Creates **vPro-AMT Capable**, **vPro-AMT Provisioned-Compliant**, and **vPro-AMT Provisioned-Not Compliant** device collections in Configuration Manager.
- Creates a **vPro-AMT ACUConfig Package** package in Configuration Manager.
- Creates a **vPro-AMT Discover Client** task sequence in Configuration Manager.

To discover AMT capability and provisioning status client systems from Configuration Manager, do the following:

1. Distribute the **vPro-AMT ACUConfig Package** package by distributing the content of the vPro-AMT Discover Client task sequence.
2. Deploy the **vPro-AMT Discover Client** task sequence on a device collection.

The **vPro-AMT Discover Client** task sequence will execute on all client systems in the targeted device collection, and the client systems will eventually end up in one of the three "vPro-AMT" device collections. It may take a few minutes for the clients to appear in the device collections. You may need to manually update the membership of the device collections or restart the Configuration Manager Admin Console to refresh the device collections.



- NOTE:** Any Dell client systems that end up in the **vPro-AMT Provisioned - Compliant** device collection will also appear in the **Available clients** list for the operations in the Dell Command | Intel vPro Out of Band application.
- NOTE:** If you have upgraded from an earlier version of Dell Command | Integration Suite for System Center, or if you later upgrade Intel Setup and Configuration Software using Dell Command | Intel vPro Out of Band, you may see multiple versions of the **vPro-AMT ACUConfig Package** package and the **vPro-AMT Discover Client** task sequence in Configuration Manager. It is recommended that you use the highest version instance of these objects, v3 over v2, for example, when distributing content or deploying the task sequence.

## Settings

On the **Settings** window you can configure and set the preferences for different components of the application such as:

- Account Setup
- Indications
- KVM
- Task Queue
- Logging

## Account Setup

You can set up and configure the account through which you want to manage your AMT enabled client systems.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click the settings icon.
3. On the **Settings** screen, The **Account Setup** tab is displayed.
4. You can configure the following settings:
  - Configure the **Configuration Manager SQL Server** information.
  - Configure the **Configuration Manager Database** information.
  - Configure the **Operating System User Account** information.
  - Configure the **AMT Administrative User Account** information.
5. Click **OK**.

## Indications


Configure indications settings such as Retention Days and Listener IP Address.

1. Launch Dell Command | Intel vPro Out of Band application.
2. Click the settings icon.  
On the **Settings** screen, the **Indications** tab is displayed.
3. Configure the following settings:
  - **Retention Days** — The number of days client events are stored in the database, ranging from a minimum of 7 and a maximum of 180 days. Events are removed once the retention day period is met.
  - **Retry Days** — The number of days the indications service attempts to connect the AMT service on the client. Both the default and maximum number of retry days is 3.
  - **Attempts Per Day** — The number of times in a day the indications service attempts to connect the AMT service on the client. Both the default and maximum number of attempts per day is 3.
  - **Listener IP Address** — Select from the available local server IP address to designate a Listener IP Address. The default is the first IP address in the list of available local server IP addresses.
    - NOTE:** If there are active subscriptions running, you will not be able to change the Listener IP Address or Port Number.
  - **Port Number** — The port number of the Listener IP Address. The default value is 65000.
4. Click **OK**.

## Unsubscribing All Subscriptions

Use the **Unsubscribe All** button to remove all subscriptions from all clients in cases where indications operations are negatively impacting network performance and you want to reduce congestion.


1. Launch Dell Command | Intel vPro Out of Band application.
2. Click the settings icon in the upper right-hand of the screen.  
On the **Settings** screen, the **Indications** tab is displayed.
3. Click **Unsubscribe All**.

 **NOTE:** Unsubscribing all subscriptions may take some time depending on the number of currently subscribed clients.

## KVM

Allows you to specify the duration of your KVM and User Consent sessions to time out.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click the settings icon.
3. On the **Settings** screen, click **KVM**.  
The **KVM** tab is displayed.
4. Specify the time for the User Consent session to time out using the **User consent response timeout**.
5. Specify the time for the KVM session to time out after a period of inactivity using the **Session Timeout**.

 **NOTE:** Setting the value to zero disables the time out session.

6. Click **OK**.

## Task Queue

This feature allows you to limit the number of completed tasks and displayed in the **Task Queue** window.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. On the **Home** screen, click the settings icon.
3. On the **Settings** screen, click **Task Queue**.  
The **Task Queue** tab is displayed.
4. To have your **Task Queue** automatically refresh, switch **Refresh Automatically** to **On**.
5. Set the **History Limit** to the number of tasks you wish to retain in the database (1 – 1000).

 **NOTE:** Only completed, canceled, or aborted tasks are removed as new tasks are created.

6. Click **OK**.

## Logging


Set the preferences for the level of logging, and location of the logs you want to capture by Dell Command | Intel vPro Out of Band.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. On the **Home** screen, click the settings icon.
3. On the **Settings** screen, click **Logging**.  
The **Logging** tab is displayed.
4. Select one of the following options from the **Log Level** drop-down menu:
  - **None** — no logs are captured.
  - **Normal** — typical logging for client systems operating normally. This **Log Level** is the recommended setting.
  - **Debug** — detailed logging for troubleshooting unexpected issues.
5. Click **Browse...** to choose the location where your log files are created.
6. To view existing logs, click **View Folder**.

7. Click **OK**.

## Remote Provisioning

Remote provisioning allows you to remotely perform AMT provisioning of Intel vPro-enabled clients.

 **NOTE:** Read the Remote Provisioning feature documentation in full before attempting to use Remote Provisioning.

### Prerequisites for Remote Provisioning

To use the remote provisioning feature, ensure the following:


- You are a domain admin user who has administrator privileges on Active Directory, Certification Authority, and Configuration Manager.
- You are running on a Configuration Manager primary site server with the Configuration Manager Admin Console installed.
- Intel Setup and Configuration Software is not installed on the provisioning system.
- You have downloaded Intel Setup and Configuration Software version 12.1 or greater. Intel SCS is available for download at <https://www.intel.com/content/www/us/en/software/setup-configuration-software.html>.
- On your Intel vPro-enabled clients, the latest Intel MEI driver and Local Management Service are installed. These components are typically factory-installed, but you can also find them on [dell.com/support](http://dell.com/support).
- Intel vPro-enabled client systems are registered as Configuration Manager clients.
- If you plan on using an AMT provisioning certificate from a trusted third-party Certificate Authority, see [Remote Provisioning Certificate Setup](#). If you plan to use a self-signed AMT provisioning certificate, you must have created one and have it on hand for the remote provisioning configuration process and for manual insertion of the hash into each vPro-enabled client to be remotely configured.

### Remote Provisioning Licensing

You must complete the licensing process in order to enable the Remote Provisioning feature.

To complete the licensing process, do the following:

1. Click **Create License Request**.  
The **Create Licensing Request** form opens.
2. Fill out the form, providing a **Domain Name**, **Organization Name**, and your email address where indicated.
3. Click **Create License File**, and save the resulting LicenseReq.xml file to your hard drive.
4. Send an email, attaching your LicenseReq.xml file, to **AMTProvisioning@dell.com**.
5. When you receive the license file from Dell, click the **Import License File** button to import the license file and enable Remote Provisioning.


 **NOTE:** Receipt of your license file from Dell may take a couple of days, as it is a manual process.

### Remote Provisioning Certificate Setup

To use the AMT Remote Provisioning feature, you must have a valid AMT provisioning certificate. A valid certificate must come from a trusted third-party Certificate Authority (CA), or be a self-signed certificate, or both.

To obtain an AMT provisioning-related server certificate file from a trusted third-party CA, complete the following steps:

1. Create a Certificate Signing Request (CSR) text file.
  - a. Click **Create CSR File**.
  - b. Fill out the **Create a Certificate Signing Request (CSR) File** form, providing a **Common Name**, **Organization Name**, **City/Locality**, **State/Province**, and **Country Code**.
  - c. Click **Create CSR File**.
2. Take the CSR file to a trusted third-party CA, and acquire a server certificate file from the CA.

 **NOTE:** Receipt of your server certificate file from the CA may take several days.

3. To import the acquired server certificate file once you have received it from the CA, click **Create PFX File**.
4. Fill out the **Create a Personal Information Exchange (PFX) File** form, providing the path to your server certificate file, and a PFX File Password.
5. Click **Create PFX File**.

## Configuring the Remote Provisioning Feature

1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click the **Remote Provisioning Configuration** tab, and enter the required information.
3. Click **Save**, and then click **Apply**.

The software makes the following changes to your environment:

- Creates the following objects in Active Directory:
  - RCS administrator user
  - AMT administrators security group
  - AMT computers organization unit
- Adds an AMT web server certificate template to the selected Certificate Authority
- Installs the Intel Setup and Configuration Software (Intel SCS)
- Imports the specified certificates into the personal store of the RCS administrator account
- Creates an AMT profile in the Remote Configuration Service (RCS)
- Creates two task sequences in Configuration Manager


## Preparing Intel vPro Client Systems For Remote Provisioning


If you specified a self-signed certificate during the Remote Provisioning configuration process, then insert the self-signed certificate hash into the MEBx of any client systems you intend to target for remote provisioning.

## Provisioning Remote Client Systems

From the Configuration Manager Admin Console, do the following:

1. Deploy the **vPro-AMT Configure Client** task sequence on the **vPro-AMT Capable** device collection or a custom device collection. The task sequence will execute on all client systems in the targeted device collection and attempt to provision the client systems for AMT.  
After being provisioned, the AMT clients will eventually appear under the **vPro-AMT Provisioned-Compliant** device collection. It may take a few minutes for the clients to appear in the device collections.
2. You may need to manually update the membership of the device collections or restart the Configuration Manager Admin Console to refresh the device collections.

 **NOTE:** Any Dell client systems that the software places in the **vPro-AMT Provisioned - Compliant** device collection will also appear in the **Available clients** list for the operations in the Dell Command | Intel vPro Out of Band application.

 **NOTE:** If you have upgraded from an earlier version of Dell Command | Integration Suite for System Center, or if you later upgrade Intel Setup and Configuration Software using Dell Command | Intel vPro Out of Band, you may see multiple versions of the vPro-AMT objects in Configuration Manager. It is recommended that you use the highest version instance of these objects, v3 over v2, for example, when deploying the task sequence.

## USB Provisioning


Before Intel Active Management Technology-based client systems are managed out-of-band, provision the client systems for AMT.

## Provisioning Using a USB Device

The client systems on the network have to procure a digital provisioning certificate before deploying Intel vPro AMT management application using remote configuration.

To export your certificate hash to the client systems using a USB storage device:


1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click the **USB Provisioning** tab.
3. Enter your Management Engine (ME) password in the **Current Password** section, and then enter a **New Password** for AMT and confirm it.

 **NOTE:** The AMT password must contain a minimum of eight characters made up of uppercase, lowercase, numbers, and nonalphanumeric characters excluding **;**, **\_**, and **"**.

4. Under **USB Key** click **Browse** and point to the location of the USB storage device.
5. Select the file format for your USB storage device.
6. Select the **Enable remote configuration of user consent policy** option if you want to allow the administrator to override the client system's user consent policy.
7. Select the type of **Hash Algorithm** required for your out-of-band management environment.
8. Select the **OOB Provisioning (enabling will start hello packets immediately)** option if you want to send hello packets immediately.
9. Select the **Consumable Records** option to record the systems that are provisioned.
10. Browse and select the **Certificate File** you want to apply on your client systems for AMT provisioning.
11. Enter a name for the certificate file.
12. Click **Create Key**.  
The USB provision key is created.
13. Click **Export...**  
The USB provisioning key is exported to the USB storage device.

## Indications

The Dell Command | Intel vPro Out Of Band application provides an indications feature that allows you remotely to monitor, diagnose, and manage clients using Distributed Management Task Force (DMTF) filters (indications) to monitor each client.

 **NOTE:** More information on DMTF filters may be found at the DMTF website, [www.dmtf.org](http://www.dmtf.org).

Indications allow you to monitor diagnostic events such as:

- Motherboard failure
- CPU failure
- Power supply failure
- Memory subsystem failure

The indications feature has the following functionality:

- Settings — Set up configuration data for the feature
- Policies — Associate filters with a policy that can be applied to one or more clients
- Configure Subscriptions — Associate policies with clients on the network, and then apply the policies to the clients
- Subscription status — View and manage subscriptions
- Events — View, manage, and export events


## Recommended And Optional Filters

Some indications are message intensive: when applied to a client, these filters will likely generate a large volume of messages, and they should therefore be used with extreme caution. To avoid network congestion, only one Optional filter may be applied to a single client on the network at a time. Supported filters are:

### Recommended Filters

- Intel® AMT: CorePlatform

## Optional Filters

 **CAUTION:** Use the following Optional Filters with great care, as they can impact network performance. Best use of these filters includes diagnosis of issues by applying a single Optional filter to a specific client for a short period of time.

- None — Default
- Intel® AMT: Platform
- Intel® AMT: ME Presence
- Intel® AMT: Features
- Intel® AMT: User
- Intel® AMT: FW ProgressEvents
- Intel® AMT: All

## Policies

From the Policies screen, you can view the Indications policies that have been previously created, as well as perform the following tasks:


- Create a new policy
- Edit a policy
- Delete a policy

The table can be sorted by any of its field in ascending or descending order by clicking the relevant column title.

## Creating A Policy


1. Click **Indications > Policies**.
2. Click **New**.  
The Create Policy screen opens.
3. Enter a policy name. The name must not be the same as an existing policy name, can only contain alphanumeric characters and spaces, and can be up to 64 characters in length.
4. Select the filter(s) to include in your policy. You must select at least one filter to create a new policy, but no more than two filters consisting of the CorePlatform (Recommended) filter and one of the Optional filters. See [Recommended And Optional Filters](#) for more information on when to use which filters.

 **NOTE:** You can only select one Optional filter to include in any given policy.

5. Click **OK**.  
The new policy appears in the Policies table.
-  **NOTE:** A policy is considered “active” as soon as it is included in one or more subscriptions.


## Editing A Policy


1. Click **Indications > Policies** in the left pane.
2. Select the policy you want to edit.

 **NOTE:** Only inactive policies can be edited.


The Edit button becomes active.

3. Click the **Edit** button.  
The Edit Policy screen opens.
4. Make any required changes to the policy.

 **NOTE:** At least one filter must be selected before the policy can be saved.

 **CAUTION:** Use the Optional Filters with great care, as they can impact network performance. Best use of these filters includes diagnosis of issues by applying a single Optional filter to a specific client for a short period of time.


5. Click **OK**.

 **NOTE:** A policy is not active until it is included in a subscription.

## Deleting A Policy

1. Click **Indications** > **Policies** in the left pane.

2. Select the policy you want to delete.

 **NOTE:** Only inactive policies can be deleted.

The Delete button becomes active.

3. Click the **Delete** button.

## Configure Subscriptions

A subscription is a collection of one policy with one or more clients selected from those on the network. From the Configure Subscriptions screen, you can view subscriptions that have been previously created, as well as perform the following operations:

- Create a new subscription
- Edit a subscription
- Delete a subscription
- Subscribe (apply a subscription to the selected clients)
- Unsubscribe (remove a subscription from a client)

Each subscription row can be in one of several states:


- Pending
- Running
- Stopping
- Completed
- Completed with error(s)
- Stopped

To sort the Subscriptions table by any of its fields in ascending or descending order, click the relevant column title. Columns in the Subscriptions table are:

- Subscription Name
- Operation
- Modifier — Modifies the Operation. Currently Stop is the only modifier.
- Status — The status of the Subscription; if a single client remains in the Pending or Retry state, then the Status of the Subscription will be Complete With Errors.
- Policy Name
- Policy Filters
- Clients — If one client is included in the subscription, its Fully Qualified Domain Name (FQDN) will be listed in the table. To see a list of client FQDNs included in the subscription if there are two or more, click the **Multiple . . .** hyperlink in the column.

To refresh the Subscriptions table, click the refresh button.

## Creating A Subscription

 **NOTE:** You must have already created at least one policy and have clients available before you can create a subscription.

1. Click **Indications** > **Configure Subscriptions**, and then click the **New** button.  
The Create Subscription screen appears.

2. Enter the name of the subscription. The name must be unique, contain only alphanumeric characters and spaces, and be no longer than 64 characters.
3. Select the policy you want to include in the subscription.
4. Click **Next**.  
The Select Client(s) screen appears.
5. Optionally, use the **Search for clients** filters to limit the list of available clients.  
**NOTE:** If the policy you have selected for this subscription contains only the Recommended Filter, then you can select multiple clients from the list of available clients to which to apply this subscription. However, if the policy you have selected for this subscription contains one of the Optional Filters, then you can select only one client.
6. Select one or more clients as appropriate from the list on the left, then move them to the list on the right.
7. Click **Finish**.

## Editing A Subscription

1. Click **Indications > Configure Subscriptions**.  
**NOTE:** You cannot edit an active subscription.
2. Select the subscription you want to edit.
3. Click the **Edit** button.  
The Edit Subscription screen displays.
4. Make any required changes on the **Edit Subscription** screen, and then click **Next**.
5. Make any required changes on the **Edit Selected Client** screen, and then click **Finish**.

## Deleting A Subscription

1. Click **Indications > Configure Subscriptions**.  
**NOTE:** You cannot delete an active subscription.
2. Select the subscription you want to delete.
3. Click the **Delete** button.

## Applying A Subscription

- NOTE:** You cannot apply a new subscription if the Listener IP Address setting is not set. Click **Settings > Indications** to set a Listener IP Address.
- NOTE:** You cannot apply a new subscription that contains one or more of the same filters and one or more of the same clients as an existing, active subscription.
- NOTE:** You cannot apply a subscription that includes one of the Optional filters when an another subscription containing one of the message intensive filters is active.
- NOTE:** If an Unsubscribe All task is in progress, you will not be able to subscribe, unsubscribe, or stop subscriptions.
- NOTE:** If the Indications service (DellAweSvc) is not running, you will not be able to subscribe, unsubscribe, or stop subscriptions. Check the status of the service on the Services console.
1. Click **Indications > Configure Subscriptions**.
  2. Select the subscription you want to apply.
  3. Click **Subscribe**.



## Unsubscribing A Subscription

**NOTE:** If an Unsubscribe All task is in progress, you will not be able to subscribe, unsubscribe, or stop subscriptions.

**NOTE:** If the Indications service (DellAweSvc) is not running, you will not be able to subscribe, unsubscribe, or stop subscriptions. Check the status of the service on the Services console.

1. Click **Indications > Configure Subscriptions**.
2. Select the subscription you want to unsubscribe.
3. Click **Unsubscribe**.

## Subscription Status

On the Subscription Status screen, you can view the status of your subscriptions. For each subscription you have created, and for each of the filters included in the policy of the subscription, each of the clients to which the subscription has been applied will be displayed on a separate line (number of filters x number of clients = number of table entries per subscription). Each subscription/client row can be in one of several states:

- Ready
- Pending Retry
- Processing
- Success
- Failure
- Stopped

To sort the subscriptions table by any of its field in ascending or descending order by clicking the relevant column title. Columns in the table are:

- Subscription Name
- Operation
- Modifier
- Status
- Client
- Policy Filter

To refresh the Subscriptions Status table, click the refresh button.

## Stopping A Subscription

If any one or more rows of a subscription are in the Ready, Processing, or Pending Retry state, then you will be able to stop the subscription. Stopping a subscription will not affect any rows of a subscription that are in the Success or Failure states. Once you have stopped a subscription, you can return to the **Configure Subscription** screen and edit, delete, apply, or unsubscribe the subscription.

**NOTE:** Stopping a subscription on one client applies the stop to all clients to which the subscription has been applied.

1. Click **Indications > Subscription Status**.
2. Select the subscription you want to stop.
3. Click **STOP SUBSCRIPTION**.

## Events


The Events screen displays a list of indications that are returned once a subscription has been applied. From this screen you can not only view the list of events, but also export the list to a \*.csv file. Should you no longer need to track specific types of events, you can add the event Message ID to a Blacklist; the events will continue to occur, but they will no longer be stored until you remove them from the Blacklist.

The Event list is sortable by the Date column only. Other information provided in the Event list is:

- Client — The client system that generated the event.
- Message ID — Event type; many events may share the same Message ID

- Description — Brief description of the event
- Severity — Possible event severity levels are Unknown, Other, Information, Warning, Minor, Major, Critical, and Fatal.
- Alert Type — Possible alert types are Other, Communications, Quality Of Service, Processing Error, Device, Environmental, Model Change, and Security.

An event counter is provided in the upper right portion of the screen. Click the refresh button to update the event count and to update the Event list.

 **NOTE:** The event counter is a count of all stored events, not of the displayed events in the Event list.

## Viewing Events

To view the Event list:

1. Click **Indications > Events** in the left pane.
2. Optionally, use a filter to restrict the events displayed in the Event list:

 **NOTE:** The event counter is a count of all stored events, not of the displayed events in the Event list.


- a. Click **FILTER SETTINGS**.  
The **Event Filter Setting** screen appears.
- b. Select a filter method: None, Client, Message ID, Client, or Message ID.
- c. Click **Next**, and depending on the filter option you selected, select a **Client** and/or a **Message ID**.
- d. Click **Finish**.  
The event list refreshes.


## Adding Events To The Blacklist

To suppress specific types of events (Message IDs) from appearing in the Event list, add them to the Blacklist:

1. Click **Indications > Events** in the left pane.
2. Select the Message IDs to add to the Blacklist by placing a check mark in the appropriate boxes.
3. Click **ADD TO BLACKLIST**.

The Message IDs of the selected events are added to the Blacklist.

 **NOTE:** When a Message ID is added to the Blacklist, previous events with same Message ID remain in the Event list; only new events with that Message ID are discarded.

 **NOTE:** Adding all events to the Blacklist results in all or almost all new events being discarded.

## Removing Events From The Blacklist

To remove Message IDs from the Blacklist so that those types of events are no longer discarded:

1. Click **Indications > Events** in the left pane.
2. Click **MANAGE BLACKLIST**.  
The Event Blacklist screen displays. Blacklisted events are sortable by Message ID or Description fields.
3. Select the Message IDs to remove from the Blacklist by placing a check mark in the appropriate boxes.
4. Click **REMOVE FROM BLACKLIST**, and then click **CLOSE**.  
New events containing the removed Message IDs are no longer discarded, and will appear in the Event list.

## Exporting Events

To export a list of events to a \*.csv file:



1. Click **Indications > Events** in the left pane.
2. Select the events to export by placing a check mark in the appropriate boxes.
3. Click **EXPORT . . . .**
4. Navigate to the location to which you want to save the event list file, and click **Save**.  
The selected events are saved to the \*.csv file.

# Client Configuration

Allows you to configure the Power Profile, Boot Order, BIOS Settings, and BIOS Passwords on the target client systems.


## Configuring Power Profile


Define the various power profiles on the client systems managed by Dell Command | Intel vPro Out of Band. You can control functions like Wake-up On Lan (WOL), ON, OFF after power loss, and so on, in the different power states (S0 to S5) of your client system.



1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Client Configuration > Power Profile**.
3. Select the power policy for your Desktop and/or Mobile computers. Click **Next**.  
The **Select Clients** tab is displayed.
4. Search for client systems to which you want to apply the power packages.
5. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
6. Click **Next**.  
The **Schedule Task** tab is displayed.
7. You can either choose to apply the changes immediately or schedule it to run later.  
Depending on your schedule, select one of the following options:
  - **Run now** — the changes to the Power Profiles are immediately applied.
  - **Run At** — the changes to the Power Profiles are queued in the **Task Queue**.  
 **NOTE:** You can launch the **Task Queue** to view the list of completed and pending tasks.  
 **NOTE:** If your client systems are not connected to the network, run the task again after the client system is coming back online..
8. Provide a name to the task you are running and click **Next**.  
The **Summary** tab is displayed.
9. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.

## Configuring the Boot Order

Change or configure the boot order on the targeted client-systems. On client systems with Legacy Boot Devices, the Boot Order feature allows you to make permanent or one-time boot sequence changes.


 **NOTE:** This **Boot Order** feature is not supported in **UEFI** boot mode.



1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Client Configuration > Boot Order**.
3. The table lists all the possible Boot devices. Change the boot order by:
  - Moving the boot devices up or down the order by clicking the **Up** or **Down** arrows at the bottom of the table.
  - Disabling boot devices by selecting or deselecting the check-box next to the Boot Device.
4. Select one of the configuration options:
  - **One-time boot configuration** — If you want the boot-order to be changed for only one reboot cycle.  
 **NOTE:** The boot-order is permanently changed if this option is not selected.
  - **Continue on error** — If you want the task execution to continue to subsequent clients systems when an error occurs, select the **Continue on error** option. Otherwise, task execution stops on the first client system where an error is encountered.
  - **Reboot client after applying changes** — If you want to reboot the client systems after applying changes.
5. Click **Next**.  
The **Select Clients** tab is opened.
6. Search for client systems to which you want to apply the Boot Order changes to.

7. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
8. Click **Next**.  
The **Schedule Task** tab is displayed.
9. You can either choose to apply the changes immediately or schedule it to run later.  
Depending on your schedule, select one of the following options:
  - **Run now** — the changes to the Boot Order is immediately applied and displays the **Running** status in the **Task Queue**.
  - **Run At** — the changes to the Boot Order is queued in the **Task Queue**.
    -  **NOTE:** You can launch the **Task Queue** to view the list of completed and pending tasks.
-  **NOTE:** If your client systems are not connected to the network, run the task again.
10. Provide a name to the task you are running and click **Next**.  
The **Summary** tab is displayed.
11. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.

## Configuring BIOS Settings





This feature allows you to remotely configure, change, and reset the BIOS settings on one or several client systems.

 **NOTE:** The supported BIOS configuration options vary for each client system.

1. Launch the Intel vPro OOB Management Extensions.
2. Click **Client Configuration > BIOS Settings**.
3. Make the changes you want to the BIOS settings for your client-systems and select the check box under **Apply**.
4. If you want the Task execution to continue to subsequent clients systems when an error occurs, select the **Continue on error** option. Otherwise, Task execution stops on the first client system where an error is encountered.
5. Select the **Continue on unavailable BIOS Setting** option to continue with the BIOS changes if a particular BIOS feature is not available on the client system.
6. Select the **Reboot after applying changes** option if you want to reboot after applying changes.
7. Click **Next**.  
The **Select Clients** tab is displayed.
8. Search for client systems to which you want to apply the Boot Order changes to.
9. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
10. Click **Next**.  
The **Schedule Task** tab is displayed.
11. You can either choose to apply the changes immediately or schedule it to run later.  
Depending on the schedule, select one of the following options:
  - **Run now** — the BIOS setting configuration is immediately applied and displays the **Running** status in the **Task Queue**.
  - **Run At** — the BIOS setting configuration is queued in the **Task Queue**.
    -  **NOTE:** You can launch the **Task Queue** to view the list of completed and pending tasks.
-  **NOTE:** If the Dell client systems are not connected to the network, run the task again.
12. Provide a name to the task and click **Next**.  
The **Summary** tab is displayed.
13. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.

## Setting BIOS Passwords

The feature allows you to manage your BIOS passwords, set passwords, clear passwords, or change the length requirements for the passwords.


1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Client Configuration > BIOS Passwords**.  
The **BIOS Passwords** tab is displayed.
3. Select one of the following options:
  - **Clear** — clear either the **Admin** or **System** password.  
 **NOTE:** Clear the **System** password before clearing the **Admin** password
  - **Set** — enter and confirm the **Admin** or **System** password.  
 **NOTE:** Client systems have to reboot after setting the **Admin** or **System** passwords.
  - **Length** — you can specify the minimum and maximum length for the **Admin** and **System** password.
4. If you want the Task execution to continue to subsequent clients systems when an error occurs, select the **Continue on error** option. Otherwise, Task execution stops on the first client system where an error is encountered
5. If you want to reboot after applying changes select the **Reboot after applying changes** option.
6. Click **Next**.  
The **Select Clients** tab is displayed.
7. Search for client systems to which you want to apply the Boot Order changes to.
8. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
9. Click **Next**.  
The **Schedule Task** tab is displayed.
10. You can either choose to apply the password changes immediately or schedule it to run later.  
Depending on the schedule, select one of the following options:
  - **Run now** — the BIOS password configuration is immediately applied and displays the **Running** status in the **Task Queue**.  
 **NOTE:** If the Dell client systems are not connected to the network, run the task again.
  - **Run At** — the BIOS password configuration is queued in the **Task Queue**.  
 **NOTE:** You can launch the **Task Queue** to view the list of completed and pending tasks.
11. Provide a brief description of the changes you are applying and click **Next**.  
The **Summary** tab is displayed.
12. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.


## Operations

This feature allows you to set up KVM sessions, turn off, turn on, and reboot Dell client systems, and remote wipe the hard drives of Dell client systems.

### Establishing KVM Sessions

This feature allows you to remotely view the primary or secondary (if present) monitors of your client systems with an Intel Graphics card. For more information, see your client systems documentation on [dell.com/support/manuals](https://dell.com/support/manuals).

 **NOTE:** Before a remote KVM session can be established, enable KVM through the Intel Management Engine BIOS Extension (MEBx) interface.


 **NOTE:** After a period of inactivity if the KVM session times out, re-establish the KVM session. To specify the time-out period, see [KVM](#)



To establish KVM sessions with remote client systems with Intel graphics card:

1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Operations > KVM Connect**.  
The **KVM Connect** tab is displayed.
3. Search for the list of client systems on which you want to establish KVM sessions.
4. Select a client system on which you want to start the KVM session and click **Connect**.

## Performing Power Management


This feature allows you to gracefully shut down or restart your client system, through the Windows operating system enabled by the AMT operation.

 **NOTE:** Windows firewall can block graceful power request by Dell Command | Integration Suite for System Center.


1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Operations > Power Management**.  
The **Power Management** tab is displayed.
3. Select the power control option you want to run on the client-systems from the drop-down list.
4. Click **Next**.  
The **Select Clients** tab is displayed.
5. Search for client system you want to apply the Power Management changes.
6. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
7. Click **Next**.  
The **Schedule Task** tab is displayed.
8. You can either choose to apply the task immediately or schedule it to run later.  
Depending on your schedule, select one of the following options:
  - **Run now** — the power management changes are immediately applied and displays the **Running** status in the **Task Queue**.  
 **NOTE:** If the Dell client systems are not connected to the network, run the task again.
  - **Run At** — the power management changes are queued in the **Task Queue**.  
 **NOTE:** You can launch the **Task Queue** to view the list of completed and pending tasks.
9. Provide a brief description of the changes you are applying and click **Next**.  
The **Summary** tab is displayed.
10. Click **Finish**.

## Wipe Client Data

 **CAUTION:** This operation deletes all the data on your client systems.

 **NOTE:** The remote-wipe of client hard drive may take several hours to complete.

The **Wipe Client Disk** feature remotely erases data on supported client system's hard drives.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. Click **Operations > Wipe Client Data**.
3. After selecting **Wipe Client Data**, you can perform one of the following actions:
  - **Schedule** — to schedule a time for client system's hard disk wipe. For more information, see [Scheduling Wipe Client Data](#).  
 **NOTE:** To schedule a Remote Wipe Client Data operation, the client must be accessible through the network.
  - **Retrieve** — to retrieve status of client system's hard disk wipe. For more information, see [Retrieving Wipe Client Data Status](#).

## Scheduling Wipe Client Data

The Wipe Client Data feature remotely erases data on supported client system's hard drives. To schedule a Wipe Client Data:

1. Select **Schedule** and click **Next**.  
The **Select Clients** tab is displayed.
2. Search for client systems to which you want to schedule a remote data wipe.
3. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.

4. Click **Next**.
5. The **Schedule Task** tab is displayed.
6. You can either choose to apply the task immediately or schedule it to run later. Depending on your schedule, select one of the following options:
  - Run now — the wipe client data operations are immediately applied and displays the Running status in the Task Queue.
    - i** **NOTE:** If your client systems are not connected to the network, run the task again.
  - Run At — wipe client disk operations are queued in the Task Queue.
    - i** **NOTE:** You can launch the Task Queue to view the list of completed and pending tasks.
7. Provide a brief description of the Task you are applying and click **Next**.
  - i** **NOTE:** It is recommended to run the **Retrieve Wipe Client Data** task to make sure that the hard drives of the client systems have been formatted successfully. For more information see, [Retrieving Wipe Client Data](#).
8. Click **Finish**.

## Retrieving Wipe Client Data Status

- i** **NOTE:** **Retrieve** requests the status of the Wipe Client Data operation.
- i** **NOTE:** After the remote hard drive wipe command has been issued from the server to the client system, the task's status changes to **Complete**. The format process on the client system will begin only after the status changes to **Complete**.

To retrieve the status:

1. Select **Retrieve** and click **Next**.  
The **Select Clients** tab is displayed.
2. Search for client systems to which you want to retrieve the status of Wipe Client Data.
3. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
4. Click **Next**.
5. The **Schedule Task** tab is displayed.
6. You can either choose to apply the task immediately or schedule it to run later. Depending on your schedule, select one of the following options:
  - Run now — the status of Wipe Client Data operations is immediately retrieved and displays the Running status in the Task Queue.
    - i** **NOTE:** If your client systems are not connected to the network, run the task again.
  - Run At — the status is queued in the Task Queue.
    - i** **NOTE:** You can launch the Task Queue to view the list of completed and pending tasks.
7. Provide a brief description of the changes you are applying and click **Next**.  
The **Summary** tab is displayed.
8. Click **Finish**.

## Generating Reports

This feature allows you to generate and view detailed reports on Out-Of-Band Manageability, Provisioning, Battery Health of laptop client-systems, and Hardware Inventory reports for single or multiple-client systems. These reports can be exported as a spreadsheet.

1. Launch the Dell Command | Intel vPro Out of Band application.
2. On the **Home** screen click **Reports**.
3. On the **Welcome** screen you can generate the following reports:
  - **Out Of Band Manageability** — you can see the AMT Management Engine configuration for client systems.
  - **Provisioning** — view the provisioning status of all the client systems in the network.
  - **Battery Health** — view the battery health of all the AMT enabled client systems on the network.
  - **Hardware Inventory** — collect the inventory information of all the client systems on the network.

4. After selecting the type of report you want, you can perform one of the following actions:
  - **Schedule** — for more information, see [Scheduling Reports](#).
  - **Retrieve** — for more information, see [Retrieving Reports](#).

## Scheduling Reports

Generate reports for selected client systems on the network. To schedule a report:

1. Click **Schedule**.  
The **Select Clients** tab is displayed.
2. Search for the list of client systems you want to view the reports on.
3. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
4. Click **Next**.  
The **Schedule Task** tab is displayed.
5. You can either choose to apply the Task immediately or schedule it to run later. Depending on your schedule, select one of the following options:
  - Run now — the Schedule report task is immediately applied and displays the Running status in the Task Queue.  
**i** **NOTE:** If your client systems are not connected to the network, run the task again.
  - Run At — Schedule report task is queued in the Task Queue.  
**i** **NOTE:** You can launch the Task Queue to view the list of completed and pending tasks.
6. Provide a name to the task and click **Next**.  
The **Summary** tab is displayed.
7. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.

## Retrieving Reports

**i** **NOTE:** Retrieving reports requests a report for the data collected through **Scheduled Reports**.

View existing reports. To retrieve a report:

1. Click **Retrieve**.  
The **Select Clients** tab is displayed.
2. Search for the list of client systems you want to view the reports on.
3. From the **Available clients** list select the client systems you want to manage and click the **>** button to move your selected systems or press the **>>** button to move all the discovered Dell clients into the **Selected clients** list.
4. Click **Next**.
5. You can either choose to apply the Task immediately or schedule it to run later.  
Depending on your schedule, select one of the following options:
  - Run now — the Retrieve report task is immediately applied and displays the Running status in the Task Queue.  
**i** **NOTE:** If your client systems are not connected to the network, run the task again.
  - Run At — Retrieve report task is queued in the Task Queue.  
**i** **NOTE:** You can launch the Task Queue to view the list of completed and pending tasks.
6. Provide a name to the task and click **Next**.  
The **Summary** tab is displayed.
7. Click **Finish**.  
The Task Queue window is opened and depending on how you scheduled the task, it starts running immediately or will be queued.



# Task Queue

The **Task Queue** window allows you to review scheduled and completed tasks. You can also click:

- **Refresh** — to refresh the task queue.
- **View** — to get detailed information on an individual task in the task queue. Click **Export** to export the information to an excel file.
- **Re-Run** — to re-run an existing task which has failed on client systems while skipping those client systems on which the task has run successfully. If a Task was completed without any errors, then **Re-Run** restarts all client systems in the Task.
- **Retrieve** — executes the Retrieve (instead of the Schedule) path of a report task.
- **Edit** — edit tasks that are pending (waiting to be run). Tasks are placed on **Hold** while editing is underway.
- **Duplicate** — duplicate any pending, completed, and canceled tasks.
- **Cancel** — cancel tasks that are not yet **Completed**.

# Troubleshooting

This section contains troubleshooting information for the Dell Command | Integration Suite for System Center.

## Topics:

- [Authenticode Signature](#)
- [KVM Over Wireless](#)
- [Hardware Inventory Report Memory Speed is reported as Zero](#)
- [Max Password Length Change](#)
- [KVM Power Control to Boot to OS in S3](#)
- [Apply Operating System Task Sequence Action Has A Red Bang](#)

## Authenticode Signature

If authenticode signature takes longer than usual to start because **.Net** is searching for the signature, follow the steps mentioned in [support.microsoft.com/kb/936707/](https://support.microsoft.com/kb/936707/).

## KVM Over Wireless

Anytime the user selects **Tools Link Preference > OS owns Wireless**, control of the wireless link is transferred from the Intel Management Engine to the operating system. (ME gains control of the wireless link anytime a shutdown or reboot command is selected from **Tools Power Control**.)

Whenever ME is given control of the wireless link (Link Preference), a timeout value is supplied that indicates how long ME is to maintain control of the wireless link, after which, control is given back to the OS. For example, a user selects Reboot To OS to reboot the client operating system.

In order to maintain the KVM link, ME is first given control of the wireless link. The timeout is set by default to 10 minutes to provide ample time for the system to complete the reboot process. ME will maintain control even after the OS has rebooted if the reboot completes in under 10 minutes. To give control back to the OS immediately, the user must select **Tools > Link Preference > OS owns Wireless**. In that case, the KVM connection is lost during the transfer process. To re-establish the connection, the user must select **Connection > Start**. Also note that when control of the wireless link is automatically reverted as a result of the Link Preference Timeout expiring, there is no loss of connectivity. There are individual timeout values for each shutdown/reboot operation (defined in KVM View app.config settings) that can be configured externally:

- LPTimeoutRebootToOS
- LPTimeoutRebootToBIOS
- LPTimeoutRebootToDiagnostics
- LPTimeoutRebootWithIDER
- LPTimeoutShutdown

For more information, see [http://software.intel.com/sites/manageability/AMT\\_Implementation\\_and\\_Reference\\_Guide/DOCS/Implementation%20and%20Reference%20Guide/default.htm](http://software.intel.com/sites/manageability/AMT_Implementation_and_Reference_Guide/DOCS/Implementation%20and%20Reference%20Guide/default.htm).

## Hardware Inventory Report Memory Speed is reported as Zero

This is a DMTF issue where memory speed is defined in seconds. Configuration Manager Resource Explorer today reports this as 0.

# Max Password Length Change

Some system BIOS does not support reducing the Maximum password length down from 32.

# KVM Power Control to Boot to OS in S3

If after a KVM connection is established, the AMT client enters power state S3 or S4, the KVM connection is lost within 30 seconds of entering the sleep state. (This issue occurs in both wired and wireless environments.) In such a case, the administrator needs to restart the connection (**Connection** → **Start**), before issuing a reboot command (OS, BIOS, Diagnostics, IDE-R).

# Apply Operating System Task Sequence Action Has A Red Bang

When creating a new Task Sequence using the Bare Metal Client Deployment Template the **Apply Operating System** Task Sequence action has a Red Bang. To resolve this:

1. In the Task Sequence editor, click **Apply Operating System Image**.
2. Select an operating system image by:
  - Selecting **Apply operating system from a capture image** option.
  - Selecting **Apply operating system from an original installation source** option.
3. Click **Browse**.
4. Browse and select the Operating System Image and click **OK**.
5. Deselect the **Use an unattended or Sysprep answer file for a custom installation** option.
6. Click the **Options** tab.
7. Select **Disable this step** option.
8. Click **Apply**.
9. Click the **Options** tab.
10. Deselect the **Disable this step** option.
11. Click **Apply**.

## Related Reference

In addition to this guide, there are other product guides you should have for reference. You can find the following guides on the Dell Support website at [support.dell.com/manuals](https://support.dell.com/manuals).

- The *Dell Command | Configure User's Guide* describes the installation and use of the **Dell Command | Configure** to configure various BIOS features for Dell business client platforms.
- The *Dell Command | Monitor User's Guide* describes the installation and the use of the **Dell Command | Monitor** software.
- The *Hardware Service Manual* provides information about your system, installing the system components and troubleshooting your system.

For more information on Microsoft System Center Configuration Manager (Configuration Manager), its installation, or features and functionalities. See the Microsoft TechNet site at [technet.microsoft.com](https://technet.microsoft.com) for details on Configuration Manager.


### Topics:

- [Obtaining Technical Assistance](#)
- [Contacting Dell](#)

## Obtaining Technical Assistance

If at any time you do not understand a procedure in this guide, or if your product does not perform as expected, there are different types of help available. For more information, see **Getting Help** in your system's *Hardware Owner's Manual*.

## Contacting Dell

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to **Dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.