

# Dell Command | Configure

## Version 4.6 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.

<b>Chapter 1: Introduction to Dell Command   Configure 4.6.....</b>	<b>5</b>
What's new in this release.....	5
Other documents you may need.....	6
Accessing documents from the Dell EMC support site.....	6
<b>Chapter 2: Windows SMM Security Mitigations Table (WSMT) Compliance for Dell Command   Configure 4.6.....</b>	<b>7</b>
<b>Chapter 3: Using user interface for Dell Command   Configure 4.6.....</b>	<b>8</b>
Accessing Dell Command   Configure within Windows system.....	8
Accessing Dell Command   Configure within Linux.....	8
Files and folders of Dell Command   Configure .....	8
Accessing the Dell Command   Configure GUI.....	9
Creating a BIOS package using the GUI.....	9
Configure the general settings.....	10
Configuration options.....	11
Configuring the setup, system, and hard disk drive passwords.....	12
Clearing setup, system and hard disk drive passwords using the existing password.....	12
Password protection screen.....	12
Configuring the autoon option.....	12
Configuring the BIOSConnect profiles.....	13
Configuring the bootorder option.....	15
Boot order screen.....	16
Adding a new device to the boot order.....	16
Boot order type.....	17
Configuring the primarybatteryconfig option.....	17
Configuring the advbatterychargecfg option.....	17
Configuring the peakshiftcfg option.....	18
Password Configuration option.....	19
Configuring the keyboardbacklightcolor option.....	19
Advanced System Management.....	20
Setting the non-critical threshold values.....	20
BIOS option validation.....	21
Validating a multiplatform package or saved package.....	21
Validating a local system package.....	21
Exporting the BIOS configuration.....	21
Exporting the SCE (.EXE) file.....	21
Exporting the configuration without setting values.....	22
Target system configuration.....	23
Applying INI or CCTK file.....	23
Applying a shell script on Linux.....	23
Applying a SCE file.....	23
Log details in Package History.....	24
Viewing a log file.....	24

Deleting log details.....	24
Providing feedback on Dell Command   Configure .....	24
<b>Chapter 4: Troubleshooting scenarios in Dell Command   Configure 4.6.....</b>	<b>25</b>
Contacting Dell.....	26

# Introduction to Dell Command | Configure 4.6

Dell Command | Configure is a software package that provides BIOS configuration capability for Dell client systems. IT administrators can use this tool to configure BIOS settings and create BIOS packages using the Dell Command | Configure User Interface (UI) or Command Line Interface (CLI).

Dell Command | Configure supports the following Windows and Linux operating systems:

- Windows 11
- Windows 10
- Windows 8.1
- Windows 8
- Windows 7
- Windows Preinstallation Environment (Windows PE)
- Red Hat Enterprise Linux 7
- Red Hat Enterprise Linux 8
- Ubuntu Desktop 16.04
- Ubuntu Desktop 18.04
- Ubuntu Desktop 20.04
- Ubuntu Core 16

For information about using the CLI, see Dell Command | Configure Command Line Interface Reference Guide available at [dell.com/support](https://dell.com/support).

 **NOTE:** This software was rebranded as Dell Command | Configure after Dell Client Configuration Toolkit version 2.2.1.

## Topics:

- [What's new in this release](#)
- [Other documents you may need](#)

## What's new in this release

- Support for the Search functionality in the Dell Command | Configure CLI.
- Support for the passphrase requirement while exporting the SCE (.EXE) file option.
- Enhanced the **Sync** feature for the BIOS updates.
- Upgraded libxml2 open-source library to the latest version.
- Support for the following BIOS attributes:
  - IntelGna
  - MultipleAtomCores
  - Usb4CmM
  - EmbUnmngNic
  - PreBootDma
  - KernelDma
  - PcieResizableBar
  - VerticalIntegration
  - MSUefiCA
  - AutoRtcRecovery
  - LegacyInterfaceAccess

## Other documents you may need

In addition to this guide, you can access the following documents at **dell.com/support**:

- The Dell Command | Configure Installation Guide provides information about installing Dell Command | Configure on supported client systems. The guide is available at Dell Command | Configure documentation page.
- The Dell Command | Configure Command Line Interface Reference Guide provides information about configuring the BIOS options on supported Dell client systems.

The Release Notes documentation is available as part of the Dell Command | Configure download on **dell.com/support**, provides the latest available information for the installation and operation of Dell Command | Configure .

## Accessing documents from the Dell EMC support site

You can access the required documents by selecting your product.

1. Go to [www.dell.com/manuals](http://www.dell.com/manuals).
2. Click **Browse all products**, click **Software**, and then click [Client Systems Management](#).
3. To view the documents, click the required product name and version number.

# Windows SMM Security Mitigations Table (WSMT) Compliance for Dell Command | Configure 4.6

The Windows (SMM) Security Mitigations Table contains information about the ACPI table that was created for the Windows operating system, which supports Windows virtualization-based security (VBS) features. Dell Command | Configure is WSMT compatible. This is used for configuring the platform features on Dell Client Systems with WSMT enabled BIOS.

Following are the behavioral changes due to WSMT compliance:

- Configuration functionalities are available on the Dell Client Platforms which have the compatible version of BIOS supporting WMI/ACPI. For more information about the platform list, see [Supported Platforms](#).
- The following limited functionalities are available when the systems are having incompatible BIOS:
  - Dell Command | Configure user interface is used for viewing all the configuration features.
  - Dell Command | Configure generates SCE for multiplatform packages.
  - Dell Command | Configure generates the reports with the configured values.
  - Dell Command | Configure opens a saved package.

You may see the following warning messages with systems running an incompatible BIOS.

- During installation: This system does not have a WMI-ACPI compliant BIOS, so the limited functionality is available. Update the BIOS with a compatible version, if available. For more information, see Dell Command | Configure Release Notes.
- Using CLI: This system does not have a WMI-ACPI compliant BIOS. Update the BIOS with a compatible version, if available.
- For local system package in user interface: This system does not have a WMI-ACPI compatible BIOS, and the local system SCE package does not work on this system. Update the BIOS with a compatible version, if available.
- While running the SCE packages: This system does not have a WMI-ACPI compliant BIOS. Update the BIOS with a compatible version, if available.

# Using user interface for Dell Command | Configure 4.6

Dell Command | Configure Graphical User Interface (Dell Command | Configure user interface) displays all BIOS configurations that are supported by Dell Command | Configure . Using the Dell Command | Configure user interface, you can perform the following:

- Create BIOS configuration for client systems. For more information, see [Creating a BIOS Package using GUI](#).
- Validate the BIOS configuration against the BIOS configuration of the host system. For more information, see [BIOS option validation](#).
- Export the customized BIOS configurations as a configuration file (INI or CCTK), Self-Contained Executable (SCE), shell script, or report. For more information, see [Exporting the BIOS configuration](#).

**NOTE:** To apply the configuration using the Dell Command | Configure Command Line Interface (CLI), run the required file (INI, CCTK, or SCE).

**NOTE:** This system does not have a WMI-ACPI compliant BIOS, so the limited functionality is available. Update the BIOS with a compatible version, if available. For more information, see Dell Command | Configure Release Notes.

## Topics:

- [Accessing Dell Command | Configure within Windows system](#)
- [Accessing Dell Command | Configure within Linux](#)
- [Files and folders of Dell Command | Configure](#)
- [Accessing the Dell Command | Configure GUI](#)
- [Creating a BIOS package using the GUI](#)
- [Advanced System Management](#)
- [BIOS option validation](#)
- [Exporting the BIOS configuration](#)
- [Target system configuration](#)
- [Log details in Package History](#)

## Accessing Dell Command | Configure within Windows system

1. Click Windows icon.
2. Enter **Dell Command | Configure**.

## Accessing Dell Command | Configure within Linux

Browse to `/opt/dell/dcc` directory.

**NOTE:** On the systems running Ubuntu Core, Dell Command | Configure can be accessed from any location using the following command: `dcc.cctk`.

## Files and folders of Dell Command | Configure


The following table displays the files and folders of Dell Command | Configure on systems running the Windows operating system.



**Table 1. Files and folders of Dell Command | Configure**

Files/Folders	Description
Dell Command   Configure Command Prompt	Allows access to the Dell Command   Configure command prompt.
Dell Command   Configure Wizard	Allows access to the Dell Command   Configure GUI.
Dell Command   Configure WINPE	Allows access to the Windows PE scripts to create a bootable image. For more details, see the Dell Command   Configure Installation Guide available at <a href="https://dell.com/support">dell.com/support</a> .
User's Guide Online	Provides access to the Dell Command   Configure documentation that is available at <a href="https://dell.com/support">dell.com/support</a> .

## Accessing the Dell Command | Configure GUI

 **NOTE:** Dell Command | Configure GUI is supported only on systems running the Windows operating system.

To access the GUI, click **Start > All Programs > Dell > Dell Command | Configure Wizard** or double-click Dell Command | Configure Wizard on the desktop.

## Creating a BIOS package using the GUI

Using the Dell Command | Configure user interface, you can create a BIOS package containing valid settings to apply to target client systems.


To create a BIOS package:


1. Access the Configuration wizard.

For more information, see [Accessing Dell Command | Configure GUI](#).

The **Create Multiplatform Package** screen is displayed with the following configuration options:

- **Create Multiplatform Package**—Click to view the BIOS settings that are supported on all possible client systems. Configure, validate, and export the settings as INI, CCTK, EXE, shell script, or HTML file.
- **Open a Dell Recommended Package**—Click to view the security features and the supported BIOS options in the system. The Dell recommended values are set in order to secure the system. Also, you have an option to modify the values as per the requirements. Configure, validate, and export the settings as INI, CCTK, EXE, shell script, or HTML file.

 **NOTE:** The Dell Recommended Package of BIOS attributes must be checked by the organization's security team prior to deployment. Dell is not responsible for security vulnerabilities that may arise which is related to the deployment or modification of the Dell Recommended Package of the BIOS attributes.


 **NOTE:** The status changes to caution when you modify a value that is not recommended by Dell.


For a complete list of the BIOS attributes, which are included in the Dell Recommended Package, see **Dell Command | Configure Version 4.x Command Line Interface Reference Guide**.

- **Create Local System Package**—Click to view the BIOS settings of the host system. Configure, validate, and export the settings as INI, CCTK, EXE, or HTML file. The file displays the supported and unsupported BIOS options for the system.
- **Open a Saved Package**—Click to import a saved configuration file. Configure, validate, and export the settings as INI, CCTK, EXE, shell script, or HTML file.

 **NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location and then click **Open**.

2. Click the required option.  
All the options that are supported for configuration are displayed. For more information, see [Configuration options](#).
3. Click **Edit** or double-click the option.
4. From the **Value to Set** drop-down list, select the values of the required option.  
The **Apply Settings** check box of the edited options is displayed as selected.
5. Select the required export option to export the edited options.  
For more information, see [Exporting the BIOS configuration](#).

 **NOTE:** If you do not want to export an option, and then clear the **Apply Settings** check box.

 **NOTE:**  
If the option accepts the string as an input, and then it is not required to add an escape sequence to that option.




Related Links:

- [Configuration options](#)
- [Configuring the setup, system, and hard disk drive passwords](#)
- [Clearing setup, system and hard disk drive passwords](#)
- [Configuring auto on option](#)
- [Configuring boot order](#)
- [Configuring primary battery charging](#)
- [Configuring advanced battery charging](#)
- [Configuring peak shift battery charging](#)
- [Configuring keyboard backlight color option](#)

## Configure the general settings

In the **General** tab, you can update the source catalog location and the download location, configure or modify Internet proxy settings for Dell Command | Configure to gather information of the update experience.









To configure the general settings:

1. On the title bar, click **Settings**.  
The **Settings** screen is displayed.
2. On the left pane, click **General**.
3. Click **Browse** under **Download File Location**, click **Browse** to set the default location or to change the default location.  
 **NOTE:** Dell Command | Configure automatically deletes the update files from this location after installing the updates.
4. You have the following options to set the Internet proxy settings:
  - To use the current Internet proxy settings, select **Use current Internet proxy setting**.
  - To configure a proxy server and port, select **Custom proxy setting**. To enable proxy authentication, select the **Use Proxy Authentication** and provide proxy server, proxy port, username, and password.  
 **NOTE:** The username and password credentials are encrypted and saved.
5. On the left pane, click **Sync**.  
In the **Sync** tab, there are two options available for the BIOS update:
  - Update the BIOS feature from **dell.com**
  - Update the BIOS feature offlineSelect the appropriate option as per your requirement.
6. Click **CHECK** to check for Dell Command | Configure updates.  
If there are updates available for Dell Command | Configure, a warning message is displayed **Updates available. Would you like to proceed?**, click **YES** to proceed with the updates.  
 **NOTE:** Internet connection is mandatory to check for the updates.
7. To update the Dell Command | Configure without an internet connection, do the following:
  - a. Select **Update The BIOS Feature Offline** option, navigate to the **DellCommandConfigureCatalog.cab** file, then click **Check** to update or downgrade the BIOS feature.
  - b. Download a local copy of **DellCommandConfigureCatalog.cab** files from <http://downloads.dell.com/catalog/>.
  - c. Extract the **.cab** file and replace the **syscfg.xml** and **resdictionary.xml** with the files that are available in Dell Command | Configure. The installation path is **C:\Program Files (x86)\Dell\Command Configure**.
  - d. Replace **Optionames\_<language code>.xml** file with the files that are available in Dell Command | Configure. The installation path is **C:\Program Files (x86)\Dell\Command Configure\Localization**.

## Configuration options

You can customize the BIOS settings and create a configuration package using the available configuration options that are described in the following table:



**Table 2. Configuration options**

Options	Description
View/Change	Click to view or change the selected configuration and load a new configuration. When you click <b>View/Change</b> to load a new configuration, the configuration screen is displayed. After you have made the preferred modifications, click <b>Save</b> to save the changes, or click <b>Cancel</b> to return to the previous configuration.  <b>NOTE:</b> If you try to load a new configuration without exporting the configured BIOS options, and then a screen is displayed. Click <b>Discard Changes</b> to discard the configured values or click <b>Cancel</b> to go to the same configuration.
Edit	Click to edit the loaded configuration.
Advanced view	Click to view the configuration details such as, command-line options and possible values that you can set for the option, current value of the option, options to apply settings, and description of the option.  <b>NOTE:</b> You can view the current value of an option if you have loaded the settings of the host system.
Basic view	Click to view the configuration details such as, category to which the option belongs, name of the option, possible values that you can set for the option, current value of the option, options to apply settings, and the description of the option.  <b>NOTE:</b> You can view the current value of an option if you have loaded the settings of the host system.
Validate	Click to validate the loaded configuration against the configuration of the host system. For more information, see <a href="#">BIOS option validation</a> .
Search	Search for a text string in the table. Type the text in the search box and the first occurrence of the text in the table is selected.
Category	Click to select the required categories from the drop-down list.  <b>NOTE:</b> You can view this option only in Basic View.
Name	Displays the name of the options.  <b>NOTE:</b> You can view this option only in Basic View.
Value to set	Displays the value of the option. Double-click the row or click <b>Edit</b> to change the values.
Present Value	Displays the current value of the option.  <b>NOTE:</b> You can view this option if you have loaded the settings of the host system.
Apply settings	Select the check box to export the option. By default, all the options that contain a value in the <b>Value to set</b> column are selected.
Description	Displays a short description of the option.
Command-Line Options	Displays the command-line representation of the options.  <b>NOTE:</b> You can view this option only in Advance View.
Status	Displays the status of the options of the loaded configuration.  <b>NOTE:</b> The <b>Status</b> column is displayed only when you validate.

## Configuring the setup, system, and hard disk drive passwords


You can set or change the setup password (setuppwd) also known as BIOS password, the system password (syspwd), and the hard disk drive password (hddpwd).

To edit the setup, system, or hard disk drive password:


1. In the **Edit** mode, click the **Value to Set** text box of the required option.  
The corresponding password screen is displayed.  
 **NOTE:** To display the password as clear text, select **Show Password**. When you select **Show Password**, then the **Confirm Password** text box is not displayed. Type the password in the **Password** text box.  
 **NOTE:** The setup and system passwords must contain a minimum of four characters.
2. Type the same password in the **Confirm Password** text box to confirm the password.  
If both the entries match, then a green color check mark is displayed next to the **Confirm Password** text box. A red X mark is displayed if both entries do not match.
3. Click **SUBMIT**.
4. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Clearing setup, system and hard disk drive passwords using the existing password

You can clear the configured setup, system, and hard disk drive passwords using the existing password.

 **NOTE:** It is not possible to clear the password without knowing the existing password.

To clear the passwords:

1. In the **Edit** mode, click the **Value to Set** text box of the required option.  
The corresponding password screen is displayed.  
 **NOTE:** To display the password as clear text, select **Show Password**. If you select **Show Password**, then the **Confirm Password** text box is not displayed.
2. Enter a blank space in the **Password** text box.
3. Enter a blank space in the **Confirm Password** text box to confirm the password.  
If both the entries match, a green check mark is displayed next to the **Confirm Password** text box. A red X mark is displayed if both entries do not match.
4. Click **SUBMIT**.
5. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Password protection screen

A password protection screen is displayed while exporting a file or report with system or setup password. To export the file with the password as clear text, click **Continue**. To export the file without the password, click **Mask**.

## Configuring the autoon option

You can configure the days on which you want the system to automatically turn on using the **autoon** option from the **Power and Performance Management** category.

To configure the days:

1. Click the required option:
  - **Create Multiplatform Package**
  - **Create Local System Package**
  - **Open a Dell Recommended Package**
  - **Open a Saved Package**

 **NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location, and then click **Open**.

2. Click **Edit**, or double-click the option.
3. In the **autoon** option row, click **View/Change** in the **Value to set** column.  
The auto on screen is displayed.
4. Select one of the following options from **Auto On** screen:
  - Disabled — To turn off the feature.
  - Weekdays — To turn on the target system automatically only on weekdays.
  - Every Day — To turn on the target system automatically everyday.
  - Selected Days — To choose the days on which the target system has to turn on automatically.
5. Click **OK**.
6. To apply the modifications, export the configuration in, ini or .exe format. See, [Exporting the BIOS configuration](#).

## Configuring the BIOSConnect profiles

A BIOSConnect profile can be configured by using either the Connection, CloudApp, Fota, Csos, or HttpBoot profile option from the **BIOS Connect profile** category. You can edit or set the input data fields for the following BIOSConnect profiles:

- ConnectionProfile
- CloudAppProfile
- CsosProfile
- FotaProfile
- HttpBootProfile

To configure the BIOSConnect profile:


1. Click the required option:
  - **Create Multiplatform Package**
  - **Create Local System Package**
  - **Open a Dell Recommended Package**
  - **Open a Saved Package**

 **NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location, and then click **Open**.


2. Click **Edit**, or double-click the option.
3. In the **BIOSConnect profile** option, click **View/Change** in the **Value to set** column.

The profile screen is displayed with the current value for data fields.

- To create a **Multiplatform Package**, update the value of data fields on the profile screen.
- To create a **Local System Package** and to open a **Saved Package**, update the existing value of data fields on the profile screens.

 **NOTE:** Get for BIOSConnect profile is protected when the BIOS password is set. After you click the **Local System Package**, the BIOS password screen is displayed. It allows 3 attempts to provide the correct password. If the correct password is not provided within 3 attempts, enumeration of the existing values for data field fails. If the correct password is provided, the existing data for BIOSConnect profiles are displayed.

4. Click **OK** to save the configuration, or click **CLOSE** to discard the changes and close the **BIOSConnect profile** screen.
5. To apply the modifications, export the configuration in, an ini or .exe format. See, [Exporting the BIOS configuration](#).

 **NOTE:** After selecting **export config** or **export .exe** option, a warning message is displayed to mask the sensitive values. Select **Mask** to hide the values of the sensitive data fields of BIOSConnect profiles. The masked values are set as **Hidden** in exported .xml files. Select **Continue** to save the data fields in plain text.

The following table displays the available data fields to be provided for configuring **BIOSConnect Profiles** with Dell Command | Configure:

**Table 3. BIOSConnect Profiles**

Profile	Data field	Description
<b>ConnectionProfile</b>	NA	This feature displays and configures the BIOSConnect connection interface.
	Preferred Interface	Displays the preferred connection interface for Internet connectivity.
	SSID Hidden	When SSID is hidden, this option must be enabled.
	SSID Name	Displays the name of the SSID.
	Pre Shared Key	The data field is the authorization key to connect the SSID.
	Auto Preferred Interface	When an option is selected as a preferred interface, you can select a Wi-Fi or a wired connection.
<b>CloudAppProfile</b>	NA	This feature displays and configures BIOSConnect for downloading recovery applications.
	URL Type	Displays the URL type.
	URL	Displays the URL to download the files.
	Select Certificate	Allows you to import the certificate to connect the URL over https.
	Response Format	Displays the format in which responses are available or downloaded.
	Signed	When enabled, this option displays the response information that is signed.
	Select Response Certificate	Allows you to import the key or certificate to validate the response information.
<b>FotaProfile</b>	NA	This feature displays and configures the BIOSConnect to download the BIOS catalogs.
	URL Type	Displays the URL type.
	URL	Displays the URL to download the files.
	Select Certificate	Allows you to import the certificate to connect the URL over https.
	Response Format	Displays the format in which responses are available or downloaded.
	Signed	When enabled, this option displays the response information that is signed.
	Select Response Certificate	Allows you to import the key or certificate to validate the response information.
<b>CsosProfile</b>	NA	This feature displays and configures the BIOSConnect to download the system recovery files.
	URL Type	Displays the URL type.
	URL	Displays the URL to download the files.

**Table 3. BIOSConnect Profiles (continued)**

Profile	Data field	Description
	Select Certificate	Allows you to import the certificate to connect the URL over https.
	Response Format	Displays the format in which responses are available or downloaded.
	Signed	When enabled, this option displays the response information that is signed.
	Select Response Certificate	Allows you to import the key or certificate to validate the response information.
	OAuth Enabled	When enabled, this option ensures that the server requires OAuth to download the required files.
	OAuth URL Type	Displays the URL type for OAuth.
	OAuth URL	Displays the URL for OAuth.
	OAuth Certificate	Allows you to import the certificate to connect the OAuth over https.
	OAuth URL Format	Displays the format of the OAuth response.
	Signed	When enabled, this option displays the OAuth response information that is signed.
	Select OAuth Response Certificate	Allows you to import the key or certificate to validate the response information.
	ClientID	Displays the ClientID for the OAuth.
	Client Secret	Displays the Client's Secret for the OAuth.
	OAuth Grant	Displays the OAuth Grant status.
<b>HttpBootProfile</b>	NA	This feature displays and configures the BIOSConnect to install the operating system through HttpsBoot.
	URL Type	Displays the URL type.
	URL	Displays the URL to download the files.
	Select Certificate	Allows you to import the certificate to connect the URL over https.

**NOTE:** The **CloudApp**, **Fota**, and **HttpBoot** profile pages have fields to display the certificate validation details. You can proceed with the selected certificate even if the validation fails.

## Configuring the bootorder option

You can configure the boot order of a client system using the **bootorder** option from the **Boot Management** category. You can add, remove, enable, disable, or change the boot order of the legacy and Unified Extensible Firmware Interface (UEFI) boot items.

To configure the boot order:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Dell Recommended Package**
- **Open a Saved Package**

**NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location, and then click **Open**.

- Click **Edit**, or double-click the option.
- In the **bootorder** option row, click **View/Change** in the **Value to set** column.

The boot order screen is displayed with the current boot order type and boot order options. For more information, see [Configure boot order](#).

- To create a multiplatform package, you can add devices.
- To create a local system package and to open a saved package, you can add devices and edit the existing boot order, if present.

**NOTE:** Use the arrow buttons at the bottom of the **Boot Order** screen to change the boot order of the devices.

- Click **OK** to save the configuration, or click **CLOSE** to discard the changes and close the **Boot Order** screen.
- To apply the modifications, export the configuration in, ini or .exe format. See, [Exporting the BIOS configuration](#).

Related Links:

- [Adding a new device to the boot order](#)
- [Boot order type](#)

## Boot order screen

The following table displays the available options on the **Dell Command | Configure - Boot Order** screen.

**Table 4. Options on the boot order screen**

Options	Description
Active Boot List	You can configure or modify the <b>Active Boot List</b> for UEFI or Legacy based on the requirement. If the active boot list is <b>ON</b> , and then the system boots with UEFI or Legacy based on the boot order type. <b>NOTE:</b> In <b>Local System Package</b> , you cannot modify <b>Active Boot List</b> if the system supports only UEFI.
Device Type	Displays the type of device.
Device Instance	Displays a unique number to identify the device on the system.
Shortform	Displays the short form of the device name. If the system has many devices of the same device type, and then the short form of the device is displayed with a .<number> notation. For example, if the system has an internal hard drive, eSATA HDD, and eSATA Dock HDD, and then the short forms are displayed as hdd.1, hdd.2, and hdd.3 respectively.
Description	Displays a short description for the device.
Status	Displays if the device is turned on or off.
Delete	Removes the device from the boot order. Click <b>X</b> to remove a device. <b>NOTE:</b> You can view this option if the boot order screen is in <b>Edit</b> mode.

## Adding a new device to the boot order

To add a new device to the boot order:

- Click **Add Device** on the **Boot Order** screen.
- Select the device from the **Device Type** drop-down list.  
The **Shortform**, **Description**, and **Status** fields are automatically populated. By default, the **Status** of the device is **On**.
- Select an instance for the device from the **Device Instance** drop-down list.
- Click **OK**.



 **NOTE:** If you select the same **Device Type** and **Device Instance** in the **Boot Order Type** for UEFI or Legacy, and then the following warning message "Remove the duplicate entry from the input list." is displayed.

## Boot order type

The boot order type displays the type of the loaded configuration. The two types of boot order are Legacy and UEFI. If the host system file is loaded, and then it displays the currently active boot order type. If a saved file is loaded, and then it displays the boot order type that is saved in the file.

The common scenarios for boot order type are:


- If boot order type is not specified in the file and if any UEFI devices are present on the system, and then the system displays the boot order type as UEFI.
- If the boot order type is not specified in the file and if any legacy devices (other than hdd) are present on the system, and then the system displays the boot order type as Legacy.
- If the boot order type is not specified and the loaded configuration file has only hdd items, and then the system prompts the user to select the boot order type.
- If the boot order type is not specified for a legacy system and if both UEFI and legacy devices are present, and then the system displays a warning message and removes the legacy or UEFI devices depending on the order of occurrence of the device.


## Configuring the primarybatterycfg option

You can configure the primary battery charging mode using the **primarybatterycfg** option from the **Power and Performance Management** category.

To configure the primary battery charging option:

1. Click the required option:
  - **Create Multiplatform Package**
  - **Create Local System Package**
  - **Open a Dell Recommended Package**
  - **Open a Saved Package**

 **NOTE:** To open a saved package click **Open a Saved Package**, browse to the file location and then click **Open**.
2. Click **Edit**, or double-click the option.
3. In the **primarybatterycfg** option row, click **View/Change** in the **Value to set** column. The **Primary Battery** screen is displayed.
4. Select the mode to charge the battery in the **Primary Battery** screen.
  - **Standard Charge** — Charges the battery over a longer period of time.
  - **Express Charge** — Charges the battery using the express charging algorithm, Dell's fast charging technology.
  - **AC Use** — Charges the battery while plugged-in.
  - **Auto Charge** — Charges the battery based on a periodic evaluation of battery usage to deliver the best balance capacity.
  - **Custom Charge** — The battery charging starts and stops based on user settings.

 **NOTE:** If you have selected **Custom Charge**, then specify the **Start Charging (50 – 95 %)** and **Stop Charging (55 – 100 %)** values.
5. Click **OK**.
6. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Configuring the advbatterychargecfg option

You can configure the advanced battery charging mode using the **advbatterychargecfg** option from the **Power and Performance Management** category. Advanced Battery charge mode uses standard charging algorithm and other methods during non-working hours to maximize battery health. During working hours, ExpressCharge is used to charge the batteries

faster. You can configure the days and the work period during which the battery has to be charged. To enable advanced battery charging, provide the day, start time, and the duration of charging (optimal usage duration).

To configure the advanced battery charging option:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Dell Recommended Package**
- **Open a Saved Package**

 **NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location, and then click **Open**.


2. Click **Edit** or double-click the option.

3. In the **advbatterychargecfg** option row, click **View/Change** in the **Value to set** column. The **Advanced Battery Settings** screen is displayed.

4. Enable Advanced Battery Charge.

 **NOTE:** If advanced battery charge mode is enabled in the **BIOS Setup** screen, the **Enable Advanced Battery Charge** is selected by default.

5. Select the day of the week.

 **NOTE:** To apply the same settings to all the days select the **Apply these settings to other days** option.

6. In the **Beginning of Day** drop-down list, select the time at which the advanced charging has to start.

7. In the **Work Period** drop-down list, select the duration of advanced charging.

8. Click **OK**.

9. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Configuring the peakshiftcfg option

You can configure the Peak Shift battery charging mode using the **peakshiftcfg** option from the **Power and Performance Management** category. Using Peak Shift configuration, you can minimize the consumption of AC power during the peak power usage period of the day. You can set a start and end time for the Peak Shift period. During this period, the system runs on battery if the battery charge is above the set battery threshold value. After the Peak Shift period, the system runs on AC power without charging the battery. The system functions normally by using AC power and recharging the battery at the specified Charge Start Time.

To configure the Peak Shift Battery charging option:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Dell Recommended Package**
- **Open a Saved Package**


 **NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location and click **Open**.

2. Click **Edit**, or double-click the option.

3. In the **peakshiftcfg** option row, click **View/Change** in the **Value to set** column. The **Peak Shift** screen is displayed.

4. Enable the peak shift settings option.

5. Select the day of the week.

 **NOTE:** To apply the same settings to all the days select the **Apply these settings to other days** option.

6. From the **Operate only on battery** drop-down list, select the time from when you want the system to operate only on battery.

7. From the **Operate only on AC** drop-down list, select the time from when you want the system to operate only on AC.

8. From the **Resume normal power/charge** drop-down list, select the time from when the system has to start using the AC power and recharging the battery.



**NOTE:** The system adjusts the value in the drop-down list to meet the following criteria:

- **Operate only on battery** time should be less than or equal to the time specified for **Operate only on AC**.
- **Operate only on battery** time and **Operate only on AC** time should be less than or greater than the **Resume normal power/charge** time.

9. Click **OK**.



**NOTE:** Select **Apply these settings to other days** check box to apply the same settings for all days of the week.

10. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Password Configuration option

This feature displays and configures the password rules those are applicable to set SysPwd, SetupPwd, OwnerPwd, and HddPwd.

To configure the password configuration option:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Dell Recommended Package**
- **Open a Saved Package**



**NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location and click **Open**.

2. Click **Edit**, or double-click the option.

3. In the **PasswordConfiguration** option row, click **View/Change** in the **Value to set** column.  
The **PasswordConfiguration** screen is displayed.

4. Enable the Password Configuration settings option.

5. Select **Lower Case Character**, **Upper Case Character**, **Digit**, **Special Character**, and then **set the minimum number of characters that are mandatory for password**.



**NOTE:** If the criteria PwdMinLen >=8, PwdLowerCaseRqd=Enabled, and PwdUpperCaseRqd=Enabled is followed, then StrongPassword is Enabled. If this criteria is not followed, then StrongPassword is Disabled. Vice versa is also applicable.

6. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Configuring the keyboardbacklightcolor option

You can configure the keyboard backlight color for the Dell Latitude rugged Extreme systems using the **keyboardbacklightcolor** option from the **System Configuration** category. You can enable supported colors, set active color, and configure customcolor1 and customcolor2.

To configure the keyboard backlight color:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Dell Recommended Package**
- **Open a Saved Package**



**NOTE:** To open a saved package click **Open a Saved Package**, browse to the file location and then click **Open**.

2. Click **Edit** or double-click the option.

3. In the **keyboardbacklightcolor** option row, click **View/Change** in the **Value to set** column.  
The **Keyboard Backlight Color** screen is displayed.

4. Select the colors that you want to enable for the keyboard backlight from the list **Enable**.



**NOTE:**

- You can select and enable multiple colors at a time.
- If you select **None**, no color will be enabled. You cannot select other colors if you have selected the option **None**.

5. Select the color that you want to set as an active color for the keyboard backlight from the list **Active**.

**NOTE:** You can select only one active color for your keyboard backlight at a time.

6. Configure the Red, Green, and Blue (RGB) values if you have selected **CustomColor1** or **CustomColor2**.

To configure the RGB values for customcolor1 or customcolor2,

- Click **CHANGE**.
- Choose the color from the color canvas.
- Click **Select**.

7. Click **OK**.

8. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

## Advanced System Management

Advanced System Management (ASM) is a feature that is supported on Dell Precision R7610, T5810, T7810, T7910, and later workstations. The feature displays information about voltage, temperature, current, cooling device, and power supply probes. The feature also allows you to set the noncritical upper threshold values of voltage, current, cooling, and temperature probes. Contact the support team for information about system models with this feature.

### Setting the non-critical threshold values

**NOTE:** You can set the critical and non-critical upper threshold values only for voltage, current, cooling and temperature probes.

To set the non-critical threshold values for the probes:

1. Click the required option:

- **Create Multiplatform Package**
- **Create Local System Package**
- **Open a Saved Package**

**NOTE:** To open a saved package, click **Open a Saved Package**, browse to the file location, and then click **Open**.

2. Click **Edit**, or double-click the option.

3. In the **advsm** option row, click **View/Change** in the **Value to set** column.  
The **Advanced System Management** screen is displayed.

**NOTE:**

- If you are setting the non-critical threshold values for **Create Local System Package**, the columns displayed are: **Description**, **Type**, **Index**, **Location**, **Minimum**, **Maximum**, **Critical Upper Threshold**, **NonCritical Upper Threshold**, and **Delete**. The system displays the details of the available probes. You cannot edit the **Type** and **Index** fields of the listed probes.
- If you are setting the non-critical threshold values for **Create Multiplatform System Package**, the columns displayed are: **Type**, **Index**, **NonCritical Upper Threshold** and **Delete**. The system does not display any values for the probes. You have to set the values for **Index**, and **NonCritical Upper Threshold** fields for each of the selected probes. Set the value of **Index** depending on the number of instances of the probes running on the system. The value of **NonCritical Upper Threshold** must be within the critical upper threshold range.

4. To set the non-critical threshold values for a new probe, click **Add Probe**, and then type the values in the required fields.

5. To set the non-critical threshold value for the listed probes, provide the value in the respective column.

6. To delete a probe, click **X** mark.

7. Click **OK**.

8. To apply the modifications, export the configuration in .ini or .exe format. See, [Exporting the BIOS configuration](#).

# BIOS option validation

You can validate the options of a BIOS package against the configuration of the host system using the **Validate** option. You can validate the settings of a multiplatform package, local system package, or a saved package. You can validate all the options except the **bootorder**, **syspwd**, and **setuppwd** options.

## Validating a multiplatform package or saved package

To validate the options of a multiplatform or saved package:


On the **Create Multiplatform Package** screen, click **Validate**.

- If the option and the configured value are supported on the host system, then a green check mark is displayed in the **Status** column.
- If the option is supported and if the configured value is not supported on the host system, then a red **X** mark is displayed in the **Status** column.
- All unsupported options are greyed out and the **Status** column remains blank.
- All the supported options on the host system are highlighted and the **Status** column remains blank with the **Value to Set** field as **Not Specified**.

## Validating a local system package

To validate the options of a local system package:

On the **Create Local System Package** screen, click **Validate**.

- All the options that are applicable on the host system are highlighted, and a green check mark is displayed in the **Status** column.
  - All unsupported options are greyed out, and the **Status** column remains blank.
-  **NOTE:** You can configure the supported options on the host system even after you validate the local system package.


# Exporting the BIOS configuration

You can export a customized configuration to apply the same settings on a target client system. You can export both supported and unsupported options. You can export certain options (**asset** and **propowntag**) without specifying any values.

To export an option:


Select the **Apply Settings** check box of that option, and then export in any of the following formats:

- Self-Contained Executable—Click **EXPORT.EXE** to export the configuration settings as a SCE (EXE file). For more information, see [Setup, system, or hard disk drive passwords screen](#).
- Report—Click **Report** to export the configuration settings as a read-only HTML file.
- Configuration file—Click **EXPORT CONFIG** to export the configuration settings as a CCTK or INI file.

-  **NOTE:** To display and configure the options on the user interface, double-click the CCTK file.
- Shell script—The shell script is generated at the location where the SCE file is exported, and contains the same configuration as that of the SCE file. The shell script is used to configure a system running the Linux operating system.

## Exporting the SCE (.EXE) file

Perform the following steps to export the BIOS configuration:

1. Click the **EXPORT.EXE** option to export the BIOS configuration as an .exe file.
  2. The **Setup, System or Hard Disk Drive Password** and the Encryption Passphrase screen is displayed prompting you to type a password and an encryption passphrase.
  3. The Encryption Passphrase encrypts the data in the SCE Payload.
-  **NOTE:** If you do not want to provide an encryption passphrase, then select the **No passphrase is required** option and click **OK** to continue with the **Export .EXE** option.

**NOTE:** Encryption passphrase must contain the following:

- 8-32 characters
- 1 uppercase letter
- 1 lowercase letter
- 1 special character
- 1 numeric character

**NOTE:** If the **Show Passphrase** option on the **Encryption Passphrase** screen is not selected, then the passphrase that is provided in the **Confirm Passphrase** option must match the passphrase that is provided in the **Passphrase** field to continue with the **Export .EXE** option.

Depending on the type of password set on the target system, determine which password to provide based on the table below:

Settings you want to configure	Passwords set on the target system						
	Setup Password	System Password	Hard Disk Drive Password	Setup and System Passwords	Setup and Hard Disk Drive Passwords	System and Hard Disk Drive Passwords	System, Setup and Hard Disk Drive Passwords
BIOS Tokens/features	Setup Password	System Password	Not Required	Setup Password	Setup Password	System Password	Setup Password
Setup Password	Setup Password	System Password	Not Required	Setup Password	Setup Password	System Password	Setup Password
System Password	Setup Password	System Password	Not Required	Setup and System Passwords	Setup Password	System Password	Setup and System passwords
Hard Disk Drive Password	Setup Password	System Password	Hard Disk Drive Password	Setup Password	Setup and Hard Disk Drive Passwords	System and Hard Disk Drive Passwords	Setup and Hard Disk Drive Passwords

**Figure 1. Password Reference Table**

For example,

- If the setup password is set in the system, and you want to configure BIOS tokens/features, you need to provide setup password.
  - If the setup and system passwords are set in the system, and you want to configure BIOS tokens/features, you must provide setup password.
  - If the setup and system passwords are set in the system, and if you want to configure BIOS tokens/features as well as change system password, you must provide both system and setup passwords.
  - If the setup, system and hard disk drive passwords are set in the system, and if you want to configure BIOS tokens/features as well as change hard disk drive password, you need to provide both setup and hard disk drive passwords.
4. Provide appropriate password(s) in order to be able to configure the desired settings.
    - To provide a setup password, click **Setup Password**, then select the **Use the password information below** option, and then type the setup password.
    - To provide a system password, click **System Password**, then select the **Use the password information below** option and type the system password.
    - To provide a hard disk drive password, click **Hard Disk Drive Password**, then select the **Use the password information below** option and type the hard disk drive password.
  5. If the target system does not have a setup, system, or hard disk drive password, then select **No password is required**.
  6. The following warning message **By exporting this BIOS configuration, your system, setup and hdd passwords will no longer be secure. If you would like to proceed with your passwords displayed in clear text, select Continue. If you want to hide your passwords, select Mask** is displayed. Click MASK to protect your password, else click Continue.
  7. Click **OK**.

**NOTE:** SCE can be generated on non WMI-ACPI system using multisystem package.

## Exporting the configuration without setting values

To export asset and propowntag without specifying changes to values:

Select the **Apply Settings** check box of the corresponding option and export.

# Target system configuration

You can apply the exported INI, CCTK, SCE, and shell script files to configure the target client systems.

Related Links:

- [Applying a INI or CCTK file](#)
- [Applying a shell script on Linux systems](#)
- [Applying a SCE file](#)

## Applying INI or CCTK file

The prerequisites for applying INI file or CCTK file are as follows:

- Administrator privileges
- Dell Command | Configure installed on the client system

To apply INI file or CCTK file, run `cctk -i <filename>`.

**NOTE:** For systems running Ubuntu Core operating system, copy the file at `var/snap/dcc/current` and run, `dcc.cctk -i /var/snap/dcc/current/<filename>.ini`

## Applying a shell script on Linux

1. Copy the script to a system running the Linux operation system.
2. Run `dos2unix` on the system.
3. Run the script as: `sh <filename.sh>`

## Applying a SCE file

**NOTE:** You must have Administrator privileges.

To apply SCE on a target system:

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

For example, `C:\Users\SystemName\Documents>"<filename>"`.

**NOTE:** You cannot run SCE on Windows PE systems. For more information on applying SCE on target systems running the Windows PE operating systems, see [Troubleshooting](#).

**NOTE:** The generated SCE file does not work on non WMI-ACPI system.

**NOTE:** If you have configured an **Encryption Passphrase** while exporting the SCE, then the SCE can only be applied through the command prompt. For more information, see [SCE details](#) section.

## SCE details

Some of the common scenarios in which you might use SCE are:

- When you apply SCE on a target system, it performs a silent installation for the BIOS settings on the target system. When the installation is complete, SCE generates a log file with the SCE name at the same location. The log file contains all the applied options and the status of the SCE file.
  - NOTE:** To generate the log file in the required location, specify the location of the log file. For example, `SCE.exe /l="<folder_path>\log.txt"`.
- When you apply SCE on a target system from a read-only location, provide the `/nolog` option to prevent generation of the log file. For example, `SCE.exe /nolog`. The `/nolog` option helps the SCE to run successfully and informs that a log file is not created as SCE is in a read-only location.

- If you run SCE from a read-only location without providing `/nolog`, then SCE fails to run.
- To apply SCE on Windows PE, extract SCE from a system running the Windows operating system using the `/e` option. For example, `SCE.exe /s /e=<folder_path_to_extract_SCE>`.
- If you have configured a setup or system password on the target system, and while exporting SCE, if you have not provided the same password in the **Setup, System, or Hard Disk Drive Password** screen, then you cannot double-click and apply SCE on the target system. However, while applying SCE from the command prompt, you can provide the setup or system password of the target system.
- If you have configured an **Encryption Passphrase** while exporting the SCE, then provide the same **Encryption Passphrase** while applying the SCE through the command prompt.

**NOTE:** Example of providing the Encryption Passphrase: `C:\Windows\Command Configure\SCE>"<filename>" -- --passphrase = <EncryptionPassphrase string>`

**NOTE:** Example of providing the setup password: `C:\Windows\Command Configure\SCE>"<filename>" -- valsetuppwd= <password string>`

**NOTE:** Example of providing the system password: `C:\Windows\Command Configure\SCE>"<filename>" -- valsyspwd= <password string>`

Related Links:

- [Exporting the BIOS configuration](#)
- [Exporting the configuration without setting values](#)

## Log details in Package History

You can view the details of the BIOS configuration exports in the **Package History** screen. The **Package History** displays the details such as time, date, type of export, and the location to which the file is exported.

Related Links:

- [Viewing a log file](#)
- [Deleting log details](#)

### Viewing a log file

Click **Package History**, on the Dell Command | Configure page.

### Deleting log details

On the **Package History** page, click the **Clear Log**.

## Providing feedback on Dell Command | Configure

You can provide feedback on the Dell Command | Configure using the link on Dell Command | Configure GUI.

1. Click the **Give us your feedback** link to launch the online survey page.
2. Provide your feedback and satisfactory ratings.
3. Click **Submit** to share it with Dell.



# Troubleshooting scenarios in Dell Command | Configure 4.6

## Running Dell Command | Configure displays error messages

If you get the error message, `Required BIOS interface not found or HAPI load error`, and then uninstall and reinstall Hardware Application Programming Interface (HAPI).

## Running Dell Command | Configure on 32-bit and 64-bit Windows supported system

Ensure that you are running `cctk.exe` based on the architecture of the system. If you are running Dell Command | Configure on a 32-bit supported system, browse to the `x86` directory in the installation directory, and run Dell Command | Configure commands. If you are running `cctk.exe` on a 64-bit supported system, and then browse to the `x86_64` directory and run Dell Command | Configure commands.

If you are running Dell Command | Configure for 32-bit supported systems on a 64-bit supported system, and then an error message is displayed: `HAPI Driver Load Error`.

If you are running Dell Command | Configure for 64-bit supported systems on a 32-bit supported system, and then an error message is displayed: `Not a valid Win32 application`.

## Running Dell Command | Configure on Windows 7, Windows 8, Windows 8.1, or Windows 10 when user account control is enabled

To run Dell Command | Configure on systems running Windows 7 or later with User Account Control (UAC) enabled, right-click the **Dell Command | Configure Command Prompt** and select **Run as administrator**.

**NOTE:** On a Windows 7, Windows 8, or Windows 8.1, if UAC is enabled, and then a user with Administrator privileges cannot install or uninstall Dell Command | Configure in silent mode. Make sure that you have an administrative privilege before installing Dell Command | Configure in silent mode.

## Running Dell Command | Configure on Linux

When you install Dell Command | Configure on a system running the Linux operating system, the entry, `modprobe dcdbas`, is added in the `/etc/rc.modules` file. After uninstalling Dell Command | Configure, this entry is not removed.

## TPM activation

Trusted Platform Module (TPM) is an industry standard cryptographic module that provides attestation, integrity metrics and reporting, and a secure key hierarchy. Client systems use TPM to verify if the state of the system has changed between two boot cycles.

To activate and check the TPM activation:

1. If not set, set the BIOS password on the system. Type:

```
cctk --setuppwd=<new-BIOS-password>
```

2. If not enabled, enable TPM. by typing the following command:

```
cctk --tpm=on
```

3. Reboot the system.

4. To activate TPM, type the following command:

```
cctk --tpmactivation=activate --valsetuppwd=<Setuppwd>
```

5. Reboot the system without interruption till the operating system loads.

6. To check the status of TPM. type:

```
cctk --tpmactivation
```

The status is displayed as activate.

## SCE failing to run on Windows Preinstallation Environment (Windows PE)

The SCE generated using the Export option on the user interface is failing to run on Windows PE. To configure BIOS using SCE, on the target system running the Windows PE operating systems:

1. On systems running the Windows operating systems, extract the contents of SCE to a folder using the following command:

```
SCE.exe /s /e=<folder_path_to_extract_SCE>
```

 **NOTE:** For more information about using the command, use /h switch.

2. Copy the extracted contents to an accessible location on the system.
3. From the location of the extracted contents, run the following command to apply the configuration:

```
applyconfig.bat /logfile <A valid and existing folder with write permission>\<A valid file name>
```

For example, applyconfig.bat /logfile C:\log.txt

To apply the configuration on a system, where setup or system password has been set, run the following command:

```
applyconfig.bat /logfile <A valid and existing folder with write permission>\<A valid file name> "--valsetuppwd= <setup password>"
```


Example 1: applyconfig.bat /logfile C:\log.txt "--valsetuppwd=password"

Example 2: applyconfig.bat /logfile C:\log.txt "--valsyspwd=password"

### Topics:

- [Contacting Dell](#)

## 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.