

Dell Optimizer

Version 2.0 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.

Chapter 1: Overview.....	5
Supported operating system.....	5
What is new in Dell Optimizer 2.0?.....	5
Chapter 2: Install, uninstall, and upgrade Dell optimizer.....	6
Install Dell Optimizer using DUP.....	6
Uninstall Dell Optimizer.....	6
Self-update Dell Optimizer.....	6
Upgrade Dell Optimizer using Dell Installer.....	6
Upgrade Dell Optimizer using Dell Command Update.....	7
Chapter 3: Getting started with Dell Optimizer.....	8
Analytics.....	9
Workload Analysis.....	10
System Analysis.....	11
System Diagnostics.....	11
Applications (ExpressResponse).....	11
Optimizing applications.....	12
Audio (Intelligent Audio).....	13
Optimizing audio.....	13
Network (ExpressConnect).....	15
Optimizing Network.....	16
Power (ExpressCharge).....	18
Optimizing power.....	18
Proximity Sensor.....	19
Configuring Proximity Sensor.....	20
Activity feed.....	20
Suggestions For You	21
Preferences.....	22
Privacy shortcuts notifications	23
Chapter 4: Administration.....	24
Install Dell Optimizer using the command prompt	24
Installation modes.....	25
Uninstall Dell Optimizer using the command prompt.....	25
Upgrade Dell Optimizer using System Center Configuration Manager update.....	25
Creating log files.....	25
Command-line interface for Dell Optimizer.....	26
WMI Provider.....	31
Chapter 5: Feedback.....	32
Chapter 6: Frequently asked questions	33
Application Optimization FAQs.....	33

Application Messages FAQs.....	33
Installation FAQs.....	33
General FAQs	34
Chapter 7: Contacting Dell.....	35

Overview

Dell Optimizer is a software application that intelligently optimizes the performance of your system by using artificial intelligence and machine learning. Dell Optimizer dynamically configures your system settings to optimize the performance of your applications. It improves the productivity, performance, and user experience through system usage analysis and learning.

On Dell Precision workstations, Dell Optimizer for Precision includes an analytics feature that collects extensive data about your system and helps identify potential issues.

Topics:

- [Supported operating system](#)
- [What is new in Dell Optimizer 2.0?](#)

Supported operating system

The current release supports the Windows 10 October 2018 update, version 1809 or later. Dell Technologies recommends installing Windows 10 October 2020 update, version 20H2 for better experience.

What is new in Dell Optimizer 2.0?

- Network (ExpressConnect):
 - Conference Bandwidth Performance
 - Automatic Network Switching
 - Optimize Network Traffic (Beta setting)
- Proximity Sensor (ExpressSign-In) enabled with added camera-based detection capabilities for platforms that support Intel Visual Sensing Technology
- Power (ExpressCharge) AI model and application performance model updates
- Audio (Intelligent Audio):
 - Added Auto Mute settings with Intelligent Noise Elimination
 - Neutral Voice Activity Detection (VAD) to dynamically identify and detect human voice
- General usability improvements :
 - Added a link to the User's Guide to the drop-down menu in the home screen
 - Added Suggestions For You as a new component
 - Added Sticky banners to suggest application optimization
 - Renamed Performance Feed to Activity Feed
 - Added a new notification to Preferences
- Other enhancements:
 - Self-Update support
 - Privacy features for microphone, camera, and SafeScreen

Install, uninstall, and upgrade Dell optimizer

Dell Optimizer can be installed with one or more features based on hardware component and driver availability on select platforms. It is preinstalled on all supported systems. However, if you have uninstalled it and you want to use it at a later point, see the following topics:


Topics:

- [Install Dell Optimizer using DUP](#)
- [Uninstall Dell Optimizer](#)
- [Self-update Dell Optimizer](#)
- [Upgrade Dell Optimizer using Dell Installer](#)
- [Upgrade Dell Optimizer using Dell Command | Update](#)

Install Dell Optimizer using DUP


If Dell Optimizer is not installed on the system:

1. Go to www.dell.com/support.
2. Download the DUP file.
3. Double-click the *.exe file to start the installation wizard.
4. Follow the steps in the wizard until you complete the installation or upgrade process.

 **NOTE:** This installer supports only the Windows 10 64-bit operating system.

Uninstall Dell Optimizer

1. Click the **Start** menu, and search for **Apps and Features**.
The list of applications and features available on the system appears.
2. Search for **Dell Optimizer Service** and select **Uninstall**.
Dell Optimizer is uninstalled from your system.

 **NOTE:** Uninstalling the service also uninstalls the application from your system.


Self-update Dell Optimizer

When there are updates available for Dell Optimizer, a message is displayed at the bottom-right side of your screen. Click **Update Now** to proceed with the updates.

Once the update is complete, click **Launch Dell Optimizer** to view the latest version.

Upgrade Dell Optimizer using Dell Installer

1. Go to www.dell.com/support.
2. Enter the model number in the Keyword field and click **Search**.
For example: Latitude 9510.
3. Click **DRIVERS & DOWNLOADS**.
4. Download the latest version of Dell Optimizer.

 **NOTE:** Dell Optimizer requires Intel 10th generation core processors and Windows 10 on Latitude, OptiPlex, or Dell Precision systems.

Upgrade Dell Optimizer using Dell Command | Update

1. Include Dell Optimizer in the Dell Command | Update catalog.
 2. Configure Dell Command | Update to check for driver, firmware, and software application updates.
 3. Export **Update preferences** as an xml from Dell Command | Update.
 4. Push **Update preferences** as a policy using System Center Configuration Manager or Workspace ONE.
- Dell Command | Update detects the new Dell Optimizer update, and includes it on the list of latest updates available. Each device within the fleet pulls the update that is based on the policy preferences set in Dell Command | Update.

Getting started with Dell Optimizer

This section provides information about the general features to help you get started and manage Dell Optimizer.

To launch the application, open the Windows Start menu, and search for Dell Optimizer.

When you launch the application for the first time, you can view the onboarding process. The onboarding process provides information about the application. If you do not have the latest version of Dell Optimizer installed, you see a prompt to update it every 30 days. The onboarding page also displays the system model. In **Privacy Notice**, you can accept the Dell Optimizer customer experience improvement program by clicking **Yes, I consent**, or refuse by clicking **No, I don't consent**. If you click **Yes, I consent**, the application collects and sends the information about how you use Dell Optimizer to Dell Technologies.

You can change the option at a later point from **Preferences > Privacy Notice**. An administrator can preset this option during deployment.

You can choose to skip any of the feature information pages that are displayed as part of the onboarding process by clicking the **Skip** option. When you click the **Skip** option, it takes you to the privacy consent page.

In the home screen, you can view the following features:

- Analytics
- Applications (ExpressResponse)
- Audio (Intelligent Audio)
- Network (ExpressConnect)
- Power (ExpressCharge)
- Proximity Sensor (ExpressSign-In)

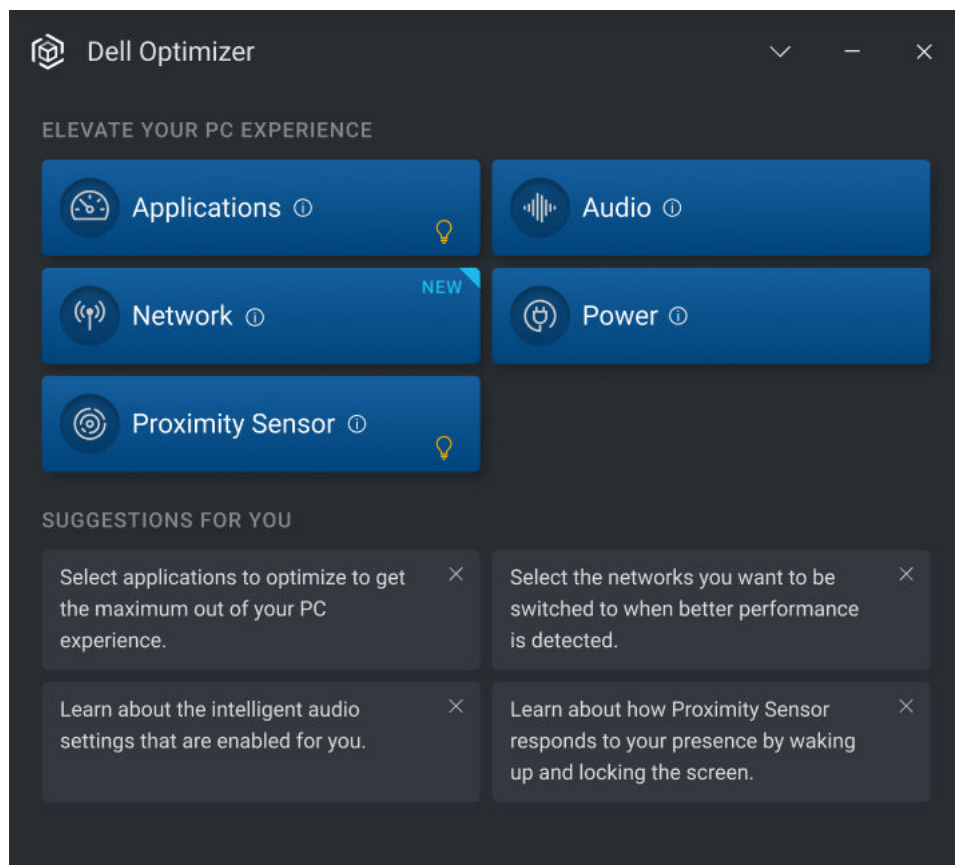






Figure 1. Home screen

Table 1. Icons on the windows

Icon	Function
-	Minimizes the application.
X	Closes the application.
v	Displays the About Dell Optimizer , Preferences , Activity Feed , Beta , User's Guide and the Give Feedback section. For more information about the Give Feedback section, see Feedback .
<	Takes you to the previous screen in the onboarding page.
	Provides suggestions to optimize the feature. The icon indicates actionable recommendations such as selecting applications for optimization, switch to a better network and so on. When you hover over the bulb indicator, an overlay with the sticky banner content is displayed.
	Provides the application performance score. It displays the +gain% indicator on the application module tile for gain >0% .The app score with the highest CPU gain is displayed when you hover over the indicator. It also shows the overlay with the memory and CPU gain% graph.
	Provides tooltip and basic information about the feature.
	Indicates that it is a new feature on Dell Optimizer.

Topics:

- [Analytics](#)
- [Applications \(ExpressResponse\)](#)
- [Audio \(Intelligent Audio\)](#)
- [Network \(ExpressConnect\)](#)
- [Power \(ExpressCharge\)](#)
- [Proximity Sensor](#)
- [Activity feed](#)
- [Suggestions For You](#)
- [Preferences](#)

Analytics

The analytics feature helps in analyzing the system, and enables you to generate the following reports:

- Workload analysis report
- System analysis report
- System diagnostics report

 **NOTE:** This feature is only available for Dell Precision systems running **SupportAssist**.

For information about how to download **SupportAssist**, see SupportAssist for Business PCs with Windows OS Deployment Guide-Using TechDirect at www.dell.com.

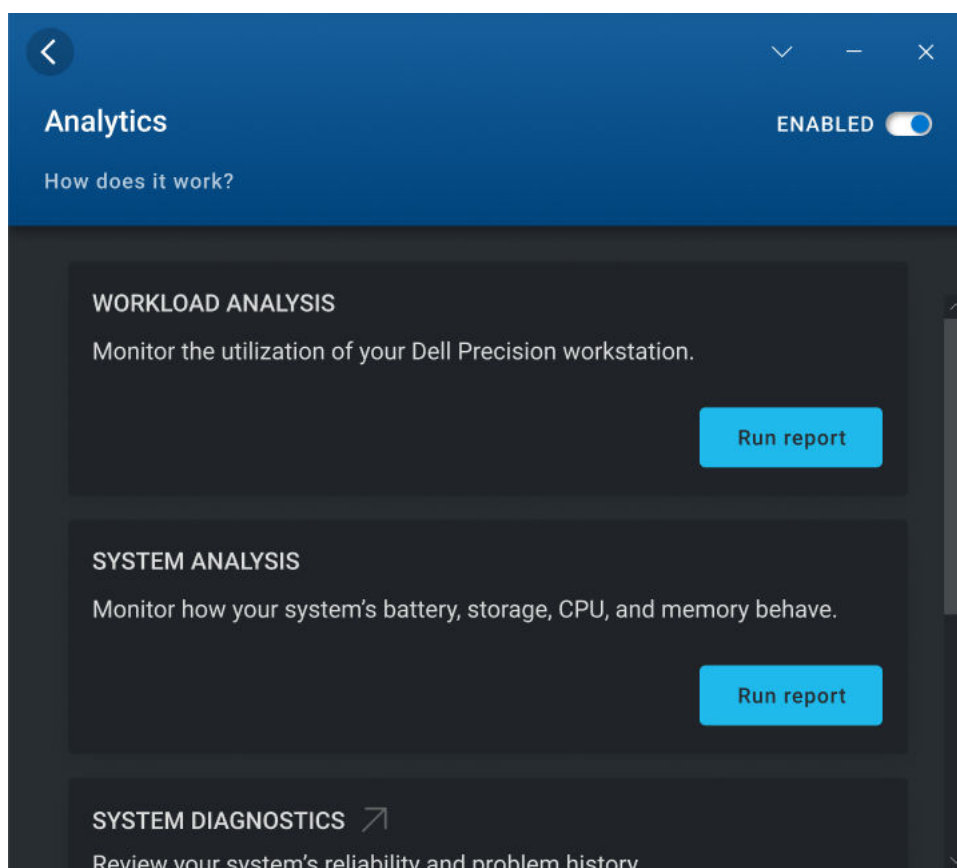




Figure 2. Analytics

Workload Analysis

The workload analysis settings enables you to track system resource utilization for components such as processor, memory, graphics, and hard drive while you run your specific work load.


To generate a workload analysis report:

1. Go to the home screen and click **Analytics**.
The Analytics section is displayed.

 **NOTE:** You can enable or disable this feature by using the  toggle switch.

2. Click **Run report** and select the report duration to generate the report.
A progress bar displays the status of the report. The task runs until either the report is generated, it is manually stopped, or when the timeout limit is reached.

3. Click **View report** to view the generated report.

 **NOTE:** It may take a few minutes to prepare the report after you click the **View report** option.

The workload analysis report displays the process-specific information using charts. The charts display the top five processes that use the system resource, to assess the impact of applications. This report also displays a set of check boxes that allow you to choose the subsystems from which the data is collected. By default, all subsystems are selected.

In the report, the X-axis shows the range of data or specific value that is collected for the given system parameter. The Y-axis displays the percentage of time, the given range (or specific value) that was found during the report interval. For example, in the temperature (Location Memory) report, the X-axis shows the range of temperature and the Y-axis shows the percentage of time the temperature was found to be in the range.

System Analysis


The system analysis settings runs for a specified period, and collects system configuration and subsystem usage data. The data is collected in the background, and it is compiled in the form of a report. The system analysis report helps you understand the behavior of your system under the current operating environment when the report was running.

To generate a system analysis report:

1. Go to the home screen and click **Analytics**.

The Analytics section is displayed.



NOTE: You can enable or disable this feature by using the  toggle switch.

2. Select the number of reports that you want to generate.
3. Click **Run report** and select the report duration to generate the report.
A progress bar displays the status of the report. The task runs until either the report is generated, it is manually stopped, or when the timeout limit is reached.

The number of reports option on the **System Analysis** page controls how many reports are generated before the system tracking gets disabled automatically. For example, if you select the report duration as 10 hours and number of reports as three reports, the first report is displayed after 10 hours. The other two new reports are displayed every 10 hours after the first report. The system tracking also stops when all the reports are generated.

4. Click **View report** to view the generated report.



NOTE: If multiple reports are ready to view on your system, click **Next report** to view the reports.

The system analysis reports displays the detailed information and graphs of the data such as battery usage, and processor utilization.

5. Click **Save as PDF** to save the selected report in a PDF format.
6. Click **Delete** to delete the selected report.

System Diagnostics


This settings allows you to generate and view full system health and diagnostic reports of your system.

To generate a system diagnostics report:

1. Go to the home screen and click **Analytics**.

The Analytics section is displayed.



NOTE: You can enable or disable this feature by using the  toggle switch.

2. Click **Launch report**.
The **Reliability Monitor** page of your system is displayed.
3. Review your system reliability and problem history.

Applications (ExpressResponse)

The applications feature optimizes the performance of the application on your system. Using machine learning, Dell Optimizer learns how you use the selected applications. This feature identifies the optimization opportunities, classifies the users, and automatically applies the appropriate settings to improve application performance. Dell Optimizer optimizes the storage, memory, and CPU utilization of your system. You can optimize up to five applications simultaneously. You can also arrange the applications that is based on your priority.

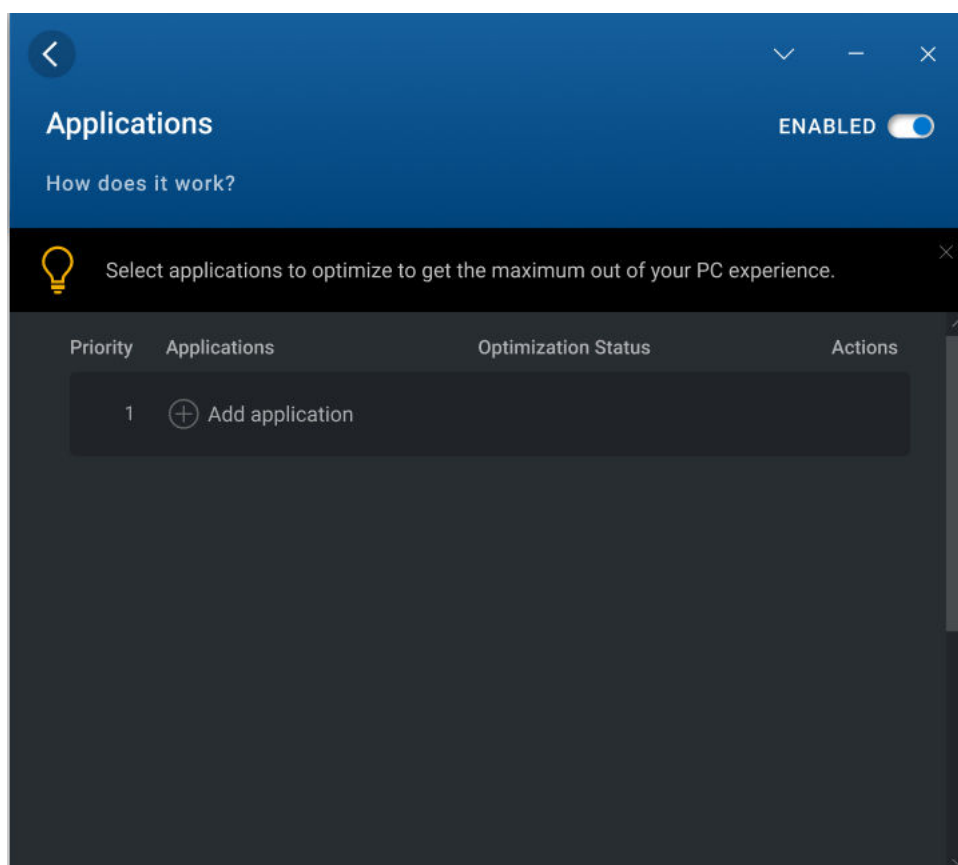



Figure 3. Applications (ExpressResponse)


Optimizing applications

1. Go to the home screen and click **Applications**.

The Applications section is displayed.



NOTE: You can enable or disable this feature by using the  toggle switch.

2. Click .
3. Select the application that you want to optimize.
4. If the application is not listed, click **Browse**.
5. After you select the applications, click **Learn and optimize**.






The Application learning starts. The status is displayed as **Learning** until Dell Optimizer finishes learning the behavior of the application.

To optimize the application ensure, you continuously use the application. The optimization process enables Dell Optimizer to learn the application behavior and determine the most optimal settings for the application. This process can take a couple of hours. You can also pause and resume the application optimization.

After the application optimization is complete, the status is displayed as **Optimized**, and optimization settings are applied automatically.

You can also perform the actions in the table below by clicking .

Table 2. Action Icons

Icon	Function
	You can view the overall performance score of the application. You can also view the bar graph with CPU and storage improvement scores, if available.
	You can temporarily turn off or on the applied optimizations for that application.
	You can remove the application from the application list.
	You can pause the application optimization process.
	You can resume the application optimization process.

Audio (Intelligent Audio)

The audio feature enhances the audio functionality during your online meetings. The audio feature helps filter the background noise, stabilize volume, and prioritize preferred voice streaming during online meetings.

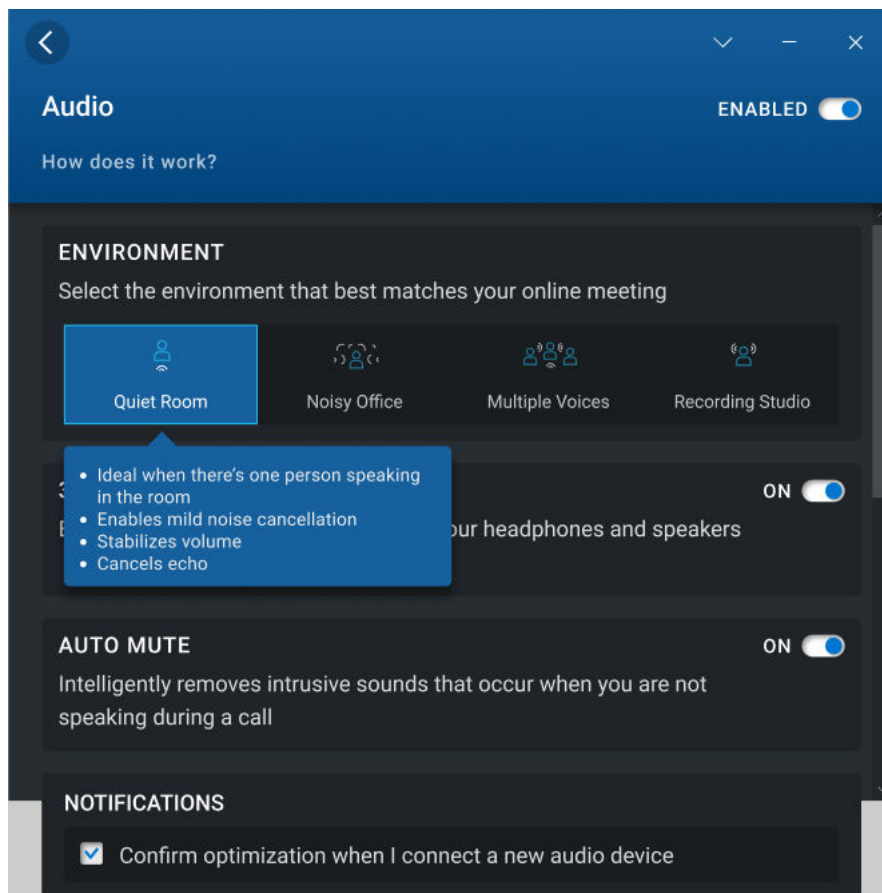




Figure 4. Audio (Intelligent Audio)





Optimizing audio

1. Go to the home screen and click **Audio**.
The Audio section is displayed.

 **NOTE:** You can enable or disable this feature by using the  toggle switch.


2. Select the environment setting for your conference call, using one of the following options:

Table 3. Audio environment settings

Option	Function
	The Quiet Room setting enhances the audio of your system for a clearer sound. This setting is for a quiet environment when only one person is speaking. By default, Quiet Room is selected.
	The Noisy Office setting reduces the unwanted noise. This setting is for an office environment when only one person is speaking.
	The Multiple Voices setting is ideal when there are multiple people speaking in the room. It automatically streams beam to allow multiple people in the room to be heard on the call.
	The Recording Studio setting is for a quiet environment when people are speaking, singing, or playing instruments.

3. Switch the **3D Audio** button to **ON** or **OFF** to enable or disable the setting.
This setting provides an immersive audio experience through your headphones and speakers in selected Dell platforms, especially for movies and music recorded in 5.1 and 7.1 surround sound. The default state of the **3D Audio** setting varies by platform according to the following list:

Platform	Default state
OptiPlex	On
Dell Precision desktops	On
Dell Precision laptops	Off
Latitude	Off

 **NOTE:** Some users may experience an impact on battery run time when the 3D Audio button is **ON**.

4. Switch the **Auto Mute** button to **ON** or **OFF** to enable or disable the setting.
This setting removes any intrusive sounds that occur when you are not speaking during a call. If nonspeech is a relevant part of your call such as music, playing instruments or so on, turn OFF this setting.

 **NOTE:** This feature is automatically disabled for the **Recording Studio** environment setting.

5. Select the **Confirm optimization when I connect a new audio device** checkbox and plug an external analog endpoint device in the audio jack.
A dialog box is displayed.

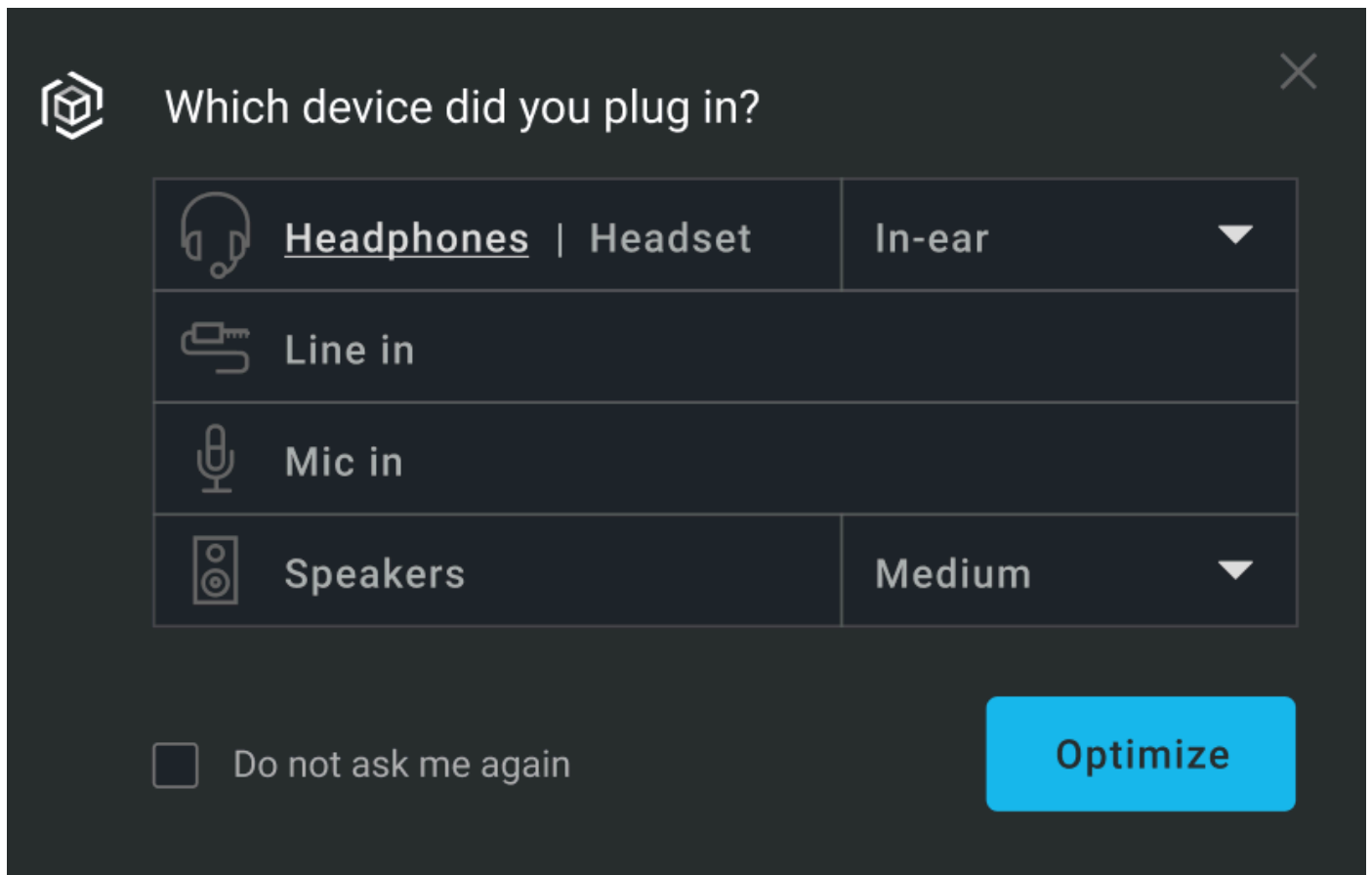


Figure 5. Audio device options

6. Select the type of device that you have connected.
A drop-down menu is displayed with the default preset options.
 7. Select the preset option and click **Optimize**.
The application remembers the preferences, and it automatically selects the same preset option when you connect the device again to your system.
- NOTE:** If Dell Optimizer is running in Headless Mode and you checked the **Do not ask me again** option, the dialog box does not appear. To view the dialog box, reinstall the audio driver.

Network (ExpressConnect)

The Network feature in Dell Optimizer allocates the maximum bandwidth to conference applications while you are on video calls and selects the best network available for which the user has credentials.

The Network feature also allows you to activate the beta setting, **Optimize Network Traffic** where you can prioritize which applications receive the most bandwidth when the network traffic is congested.

NOTE: The beta setting is optional and choosing to deactivate it does not affect the performance of the Network feature.

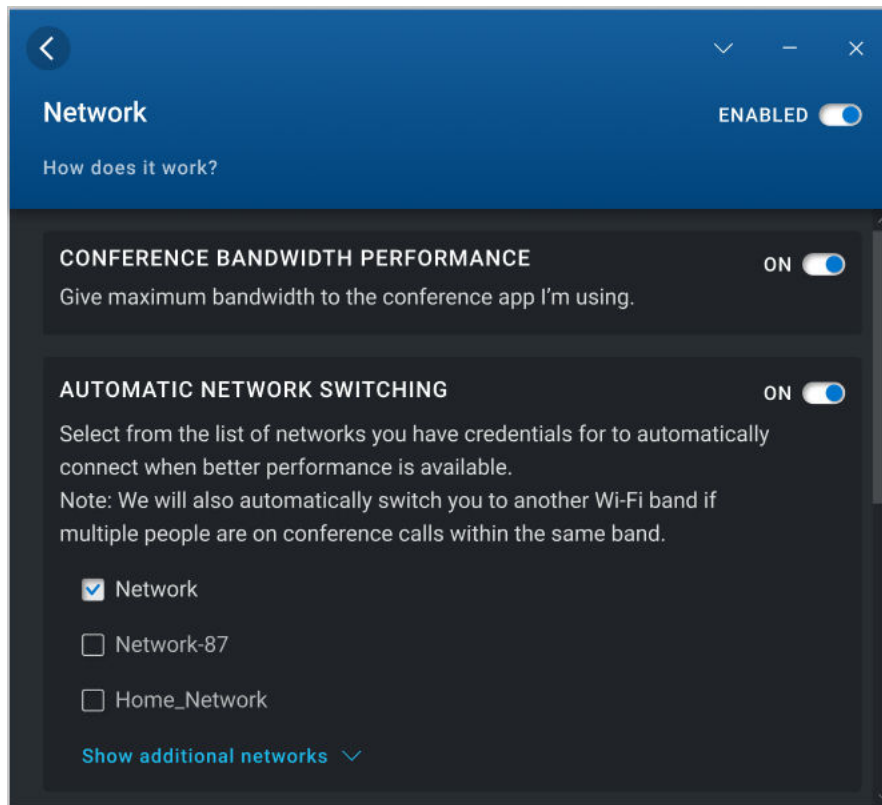


Figure 6. Network (ExpressConnect)

Optimizing Network

1. Go to the home screen and click **Network**.

The Network section is displayed.

NOTE: You can enable or disable this feature by using the toggle switch.

2. Click the **Conference Bandwidth Performance** option if you are using a video conference application.

This setting allocates the maximum bandwidth to your conference applications when you are on video conference calls.

NOTE: You can enable or disable this setting by using the toggle switch.

3. Click the **Automatic Network Switching** option to automatically switch to the best available network.

This setting, when enabled, also automatically switches between Wi-Fi bands (2.4 GHz and 5 GHz) if a network or band congestion is detected. If you want to use this option, choose at least one of the networks you want ExpressConnect to switch to from the list of networks. ExpressConnect shows you all the networks for which you have credentials. Networks that are within range are displayed first, and networks that are not within range are hidden under **Show additional networks** section.

NOTE: You can enable or disable this setting by using the toggle switch.

Go to **Show additional networks** to display or hide the networks for which you have credentials but are not currently in range.

4. Go to the home screen and select the **Beta** option from the drop-down menu.

The Beta screen disclaimer is displayed.

NOTE: You can view all the Beta settings by clicking the **continue** option. The Beta settings are disabled by default.

The Beta settings may impact your system's performance. If you think this setting is affecting your network connection, turn OFF this setting.

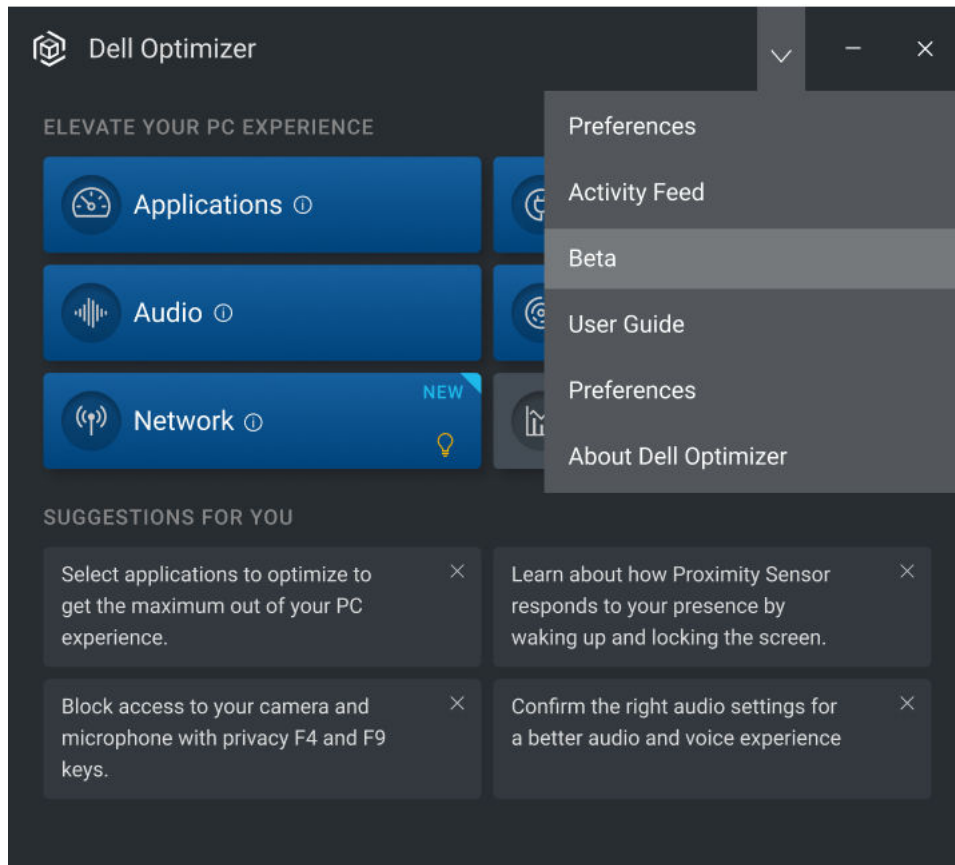


Figure 7. Accessing Beta settings

- Go to **Optimize Network Traffic** to prioritize which applications receive the most bandwidth when the network traffic is congested.

This setting enhances the performance of the prioritized applications by constantly adjusting your available bandwidth.

Conference Bandwidth Performance setting is disabled when you enable **Optimize Network Traffic** feature.

NOTE: You can enable or disable this setting by using the toggle switch.

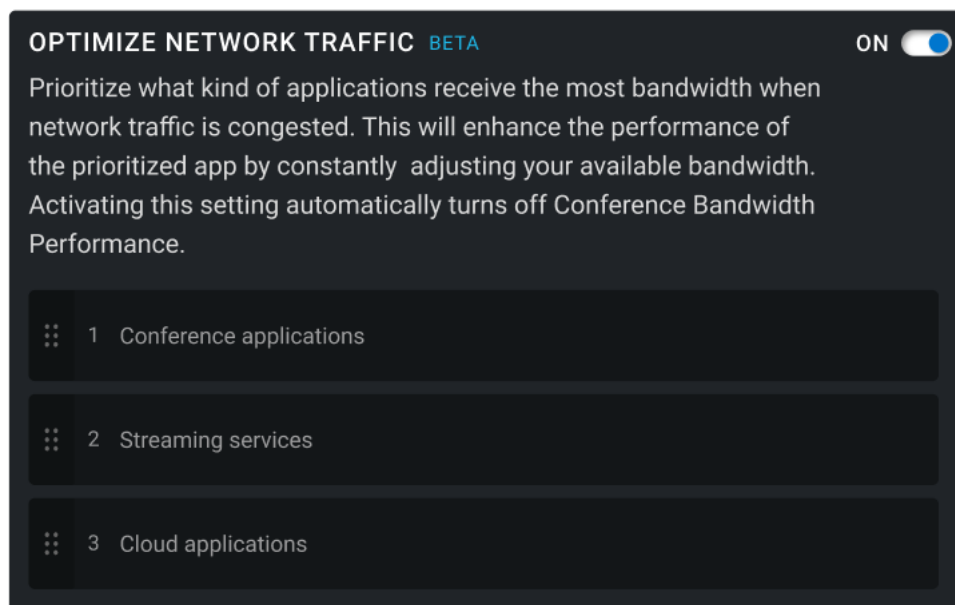


Figure 8. Optimize Network Traffic setting

Power (ExpressCharge)

The Power feature improves the battery life of your system by configuring and switching productivity on usage behaviors. It learns the battery usage on the system, and uses AI and machine learning models to apply appropriate charge policies. This feature also identifies opportunities to extend the battery run time.

Dell Optimizer learns the discharge patterns, discharge rates, state of battery health, and classifies the users into the following four profiles:

- Desktop replacement—Always connected to a power source and rarely uses battery.
- Corridor warrior—A standard office user with a general charge cycle.
- Performance users—Uses processor heavy applications which have a high battery discharge rate.
- Marathon users—Generally discharges the system completely.

Dell Optimizer takes one week to learn the user's behavior, and adjusts their profile after each one-week learning period when needed.

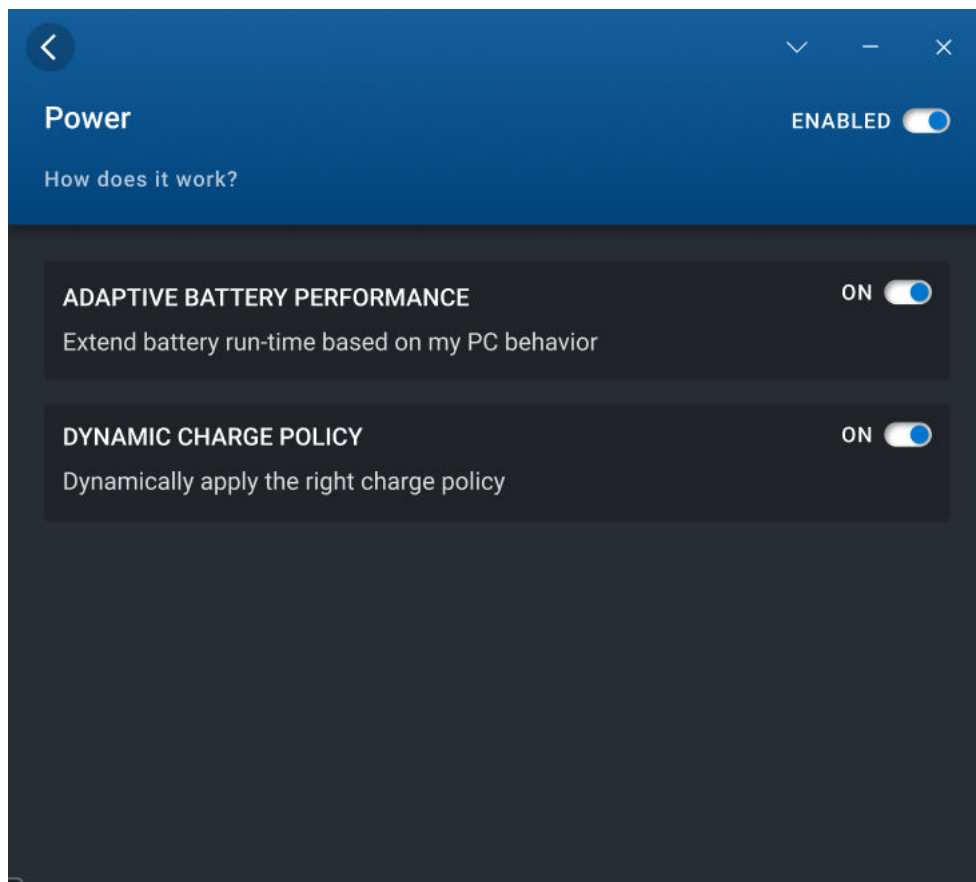





Figure 9. Power

Optimizing power

1. Go to the home screen and click **Power**.
The Power section is displayed.

 **NOTE:** You can enable or disable this feature by using the  toggle switch.

2. Click the **Adaptive battery performance** toggle button to extend the battery run time based on the user behavior.
This setting allows you to extend the battery runtime by intelligently taking battery saving measures. It turns on the windows power saver mode, reduces the processor power level, and dims the screen.

 **NOTE:** Some users may experience a temporary impact on system performance when you apply the Adaptive Battery Performance optimization settings.

3. Use the **Dynamic charge policy** toggle switch, to enable the correct charge policy.

This setting ensures that the system automatically switches the charging policies between, Primary AC, Express Charge, and Standard, according to the usage pattern of user.

NOTE: If you have purchased a long cycle life battery with a three-year warranty, the **Dynamic charge policy** toggle switch is disabled. A long cycle life battery is locked in one charging mode, and the system cannot switch between different charging modes.

Proximity Sensor

Proximity sensor is an integrated feature in selected Dell laptops and mobile workstations. The sensor detects your presence when you are in front of your system and within the field-of-view (FOV) of the sensor. When you move out of the FOV, the brightness of your system display reduces, and locks your system that is based on the lock time settings. When you walk in to the FOV, the system display turns on and the login screen appears.

When enabled, the proximity sensor can be accessed when the system is on or in modern standby state, and when the system is in clamshell or stand mode.

Proximity Sensor supports the following capabilities:

- **Walk Away Lock**—When you move out of the FOV, the system locks, and the display is turned off based on the preferred lock time settings. The system then enters modern standby state. This setting secures your system and saves power when you are away from it. By default, the **Walk Away Lock** button is enabled, and the screen lock timer is set to 60 seconds. The **Walk Away Lock** setting is suspended when:
 - Snooze is enabled in Dell Optimizer.
 - User activity is detected through a keyboard, mouse, or a touchpad.
 - An application running on the system is requesting audio or display power from the operating system. For example, when you are using Skype during an active call, and when you are streaming video in Windows Media Player.
 - The proximity sensor feature is configured to be disabled when an external monitor is connected to the system.
 - **Wake On Approach**—When you walk into the FOV, the system wakes from modern standby, turns on the display, and displays the Windows login screen. This setting enables faster sign-in as you approach your system. If you have set up the Windows Hello feature, the camera recognizes your face and Windows automatically unlocks your system. If you have not set up Windows Hello, you have to enter your system password to unlock your system. By default, the **Wake on Approach** button is enabled. The **Wake On Approach** is suspended when:
 - The battery is low, and the system is not plugged in to a power source.
 - The proximity sensor feature is configured to be disabled when an external monitor is connected.
 - **Keep Alive**—This feature prevents Windows from turning off the display, and ensures that the system does not enter sleep state when:
 - The system is plugged to a power source.
 - The user is present in the FOV but not engaged with the system.
 - There is no application running on the system requesting audio or display power from the operating system.
- NOTE:** The **Keep Alive** feature can only be configured using CLI commands or WMI and it is enabled by default.
- **Special Use Cases**—You can select the following two options to increase the efficiency of the Proximity Sensor feature:
 - Use camera to increase the accuracy of presence detection
- NOTE:** This option is available only on products that support Intel Visual Sensing Technology.
- Keep Proximity Sensor enabled while connected to external monitors

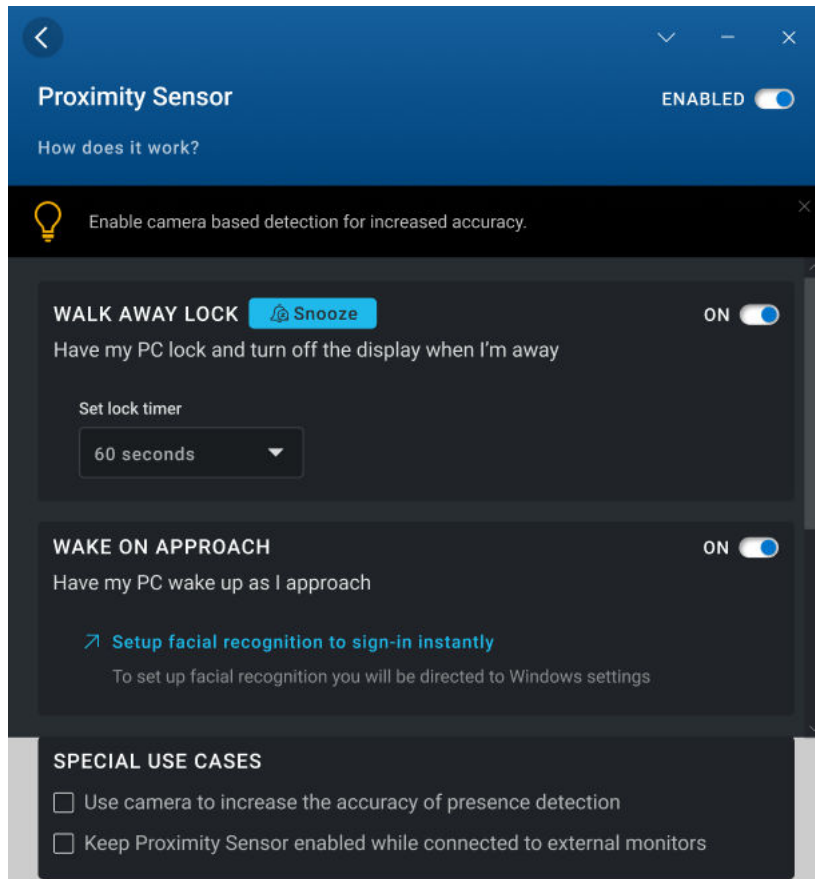




Figure 10. Proximity Sensor (ExpressSign-In)

Configuring Proximity Sensor

1. Go to the home screen and click **Proximity Sensor**.
The Proximity Sensor section is displayed.
NOTE: You can enable or disable this feature by using the  toggle switch.
2. Switch the **Walk Away Lock** toggle button to **ON** or **OFF**, and set the screen lock timer.
NOTE: The screen may not lock if a video is playing on a media player or a browser.
3. To set the snooze timer, click **Snooze**, and select the timer value.
By default, the snooze timer is set to 0.
4. Switch the **Wake on Approach** toggle button to **ON** or **OFF**.

Activity feed

The activity feed  feature provides insight into the optimization that is performed by Dell Optimizer. It displays the optimization settings that are applied for learning, and optimization gains.

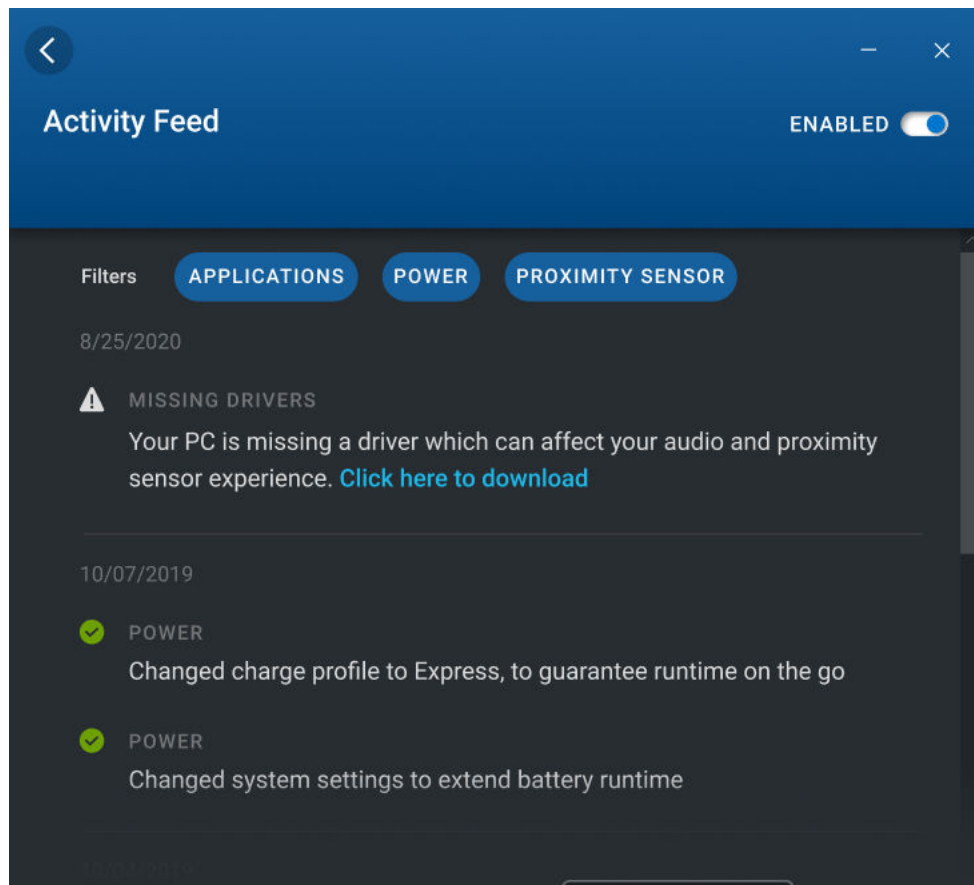


Figure 11. Activity feed

Suggestions For You

The Suggestions For You component appears on the home screen of Dell Optimizer and provides intelligent recommendations to optimize the applications and features.

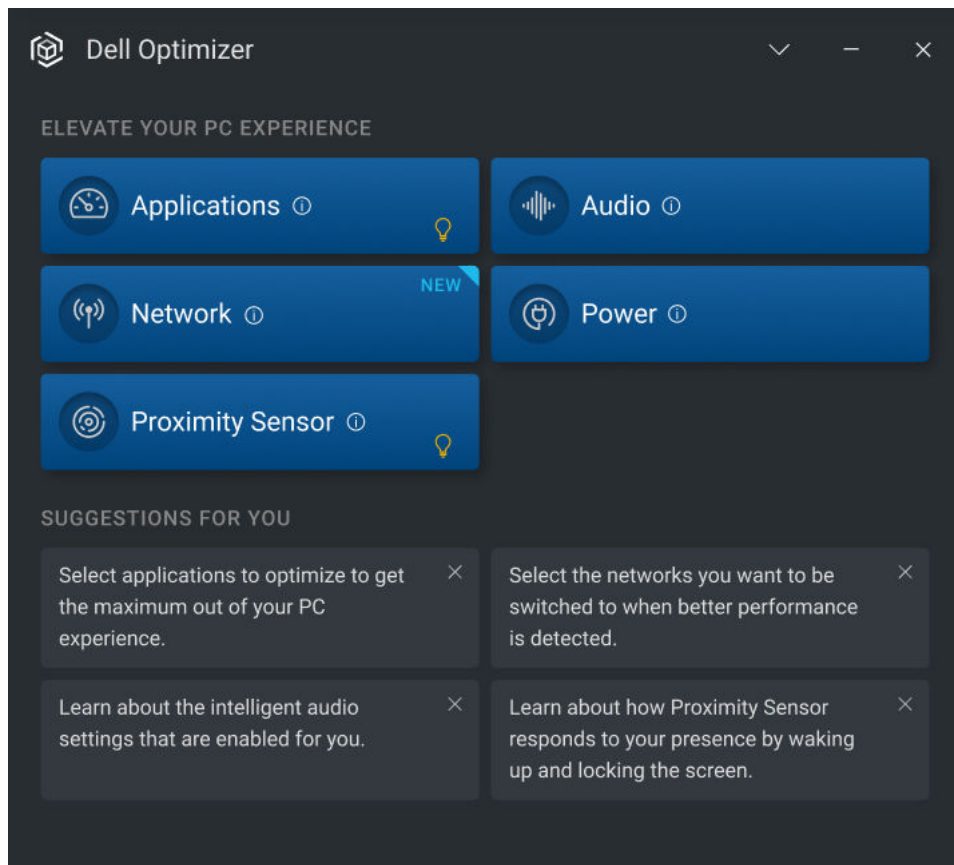


Figure 12. Suggestions For You

Preferences

This section displays the **Privacy Notice** of Dell Optimizer. Select the check box to send the Dell Optimizer customer experience data to Dell. Clear the check box if you do not want to send the data to Dell.

NOTE: Dell Optimizer customer experience improvement program collects only application-related data. It does not collect personal information.

The Preferences section also displays the following **Notifications** options on select platforms:

- I want to receive notifications from Dell Optimizer.
- I want to receive notification when I toggle F4(microphone mute), F9 (camera shutter lock) on and off.

NOTE: This option is available only on select platforms.

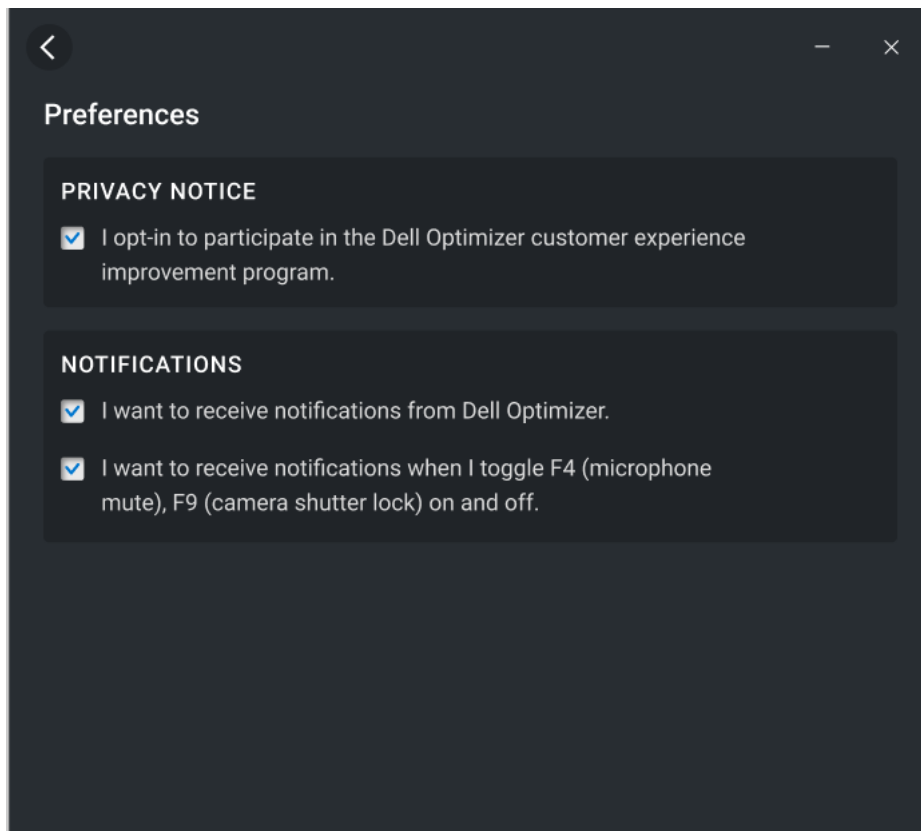


Figure 13. Preferences

Privacy shortcuts notifications


The following keyboard shortcuts are available on select platforms:

- F9 key—Toggles the camera on and off
- F4 key—Toggles the microphone on and off
- Fn+P—Toggles the SafeScreen on and off

Dell Optimizer sends out click notifications to ensure that the user is aware when either the camera, microphone, or SafeScreen are turned on or off using the hardware key.

Administration

This chapter provides details about the administrative features of Dell Optimizer. Admin is a default user profile that is created for the user who is a member of the administrator group. A system administrator can install one or more Dell Optimizer features based on requirements, hardware components and driver availability on select platforms. When you log in to Dell Optimizer as an administrator, you can access certain notable extended features such as log files, WMI providers, and CLI commands.


 **NOTE:** A system administrator should perform the tasks in this chapter. It is recommended to install Dell Optimizer after Image deployment through Software Center or equivalent management console.

Topics:

- [Install Dell Optimizer using the command prompt](#)
- [Installation modes](#)
- [Uninstall Dell Optimizer using the command prompt](#)
- [Upgrade Dell Optimizer using System Center Configuration Manager update](#)
- [Creating log files](#)
- [Command-line interface for Dell Optimizer](#)
- [WMI Provider](#)

Install Dell Optimizer using the command prompt

Table 4. Command prompts to install Dell Optimizer

Function	exe Installer Switch	DUP Switch	Supported Values
Silently install Dell Optimizer with no user interaction.	/silent	/s or /passthrough /silent  NOTE: When you use the DUP with a switch and do silent installation, use /silent instead of /s, after the /passthrough switch.	NA
Policy switch—To install Dell Optimizer where the user is not allowed to use the UI.	/HeadlessMode=true	/passthrough /HeadlessMode=true	True and false
Policy switch—To install Dell Optimizer without the Proximity Sensor feature.	/ProximitySensor=false	/passthrough /ProximitySensor=false	True and false
Policy switch—Preset Opt-in or Opt-out option for Dell Optimizer Customer Experience Improvement Program.	/TelemetryConsent=<value>	/passthrough /TelemetryConsent=<value>	True and false

NOTE: Policy switches can be reversed if you upgrade Dell Optimizer. For example, if you specify /HeadlessMode=false or /ProximitySensor=skip in Dell Optimizer 1.2, you can reverse the policy switches by specifying /HeadlessMode=true or /ProximitySensor=true in Dell Optimizer 2.0.

Installation modes

Table 5. Installation modes

Feature	Normal Install	Headless Mode
Analytics (Dell Precision only)	Yes	No
Applications	Yes	Yes
Audio (excluding Dell Precision Workstation or Dell Precision Rack Workstation)	Yes	No
Network	Yes	Yes
Power (laptops only)	Yes	Yes
ProximitySensor (supported laptop configurations)	Yes	No

NOTE: You cannot change the settings using GUI, CLI, or WMI after you have installed a feature using Headless Mode.

Uninstall Dell Optimizer using the command prompt

Use the following command to uninstall Dell Optimizer from your system:

```
DellOptimizer.exe /remove
```

Upgrade Dell Optimizer using System Center Configuration Manager update

1. Log in as an administrator.
2. Go to **Start > Control Panel > Configuration Manager**.
The **Configuration Manager Properties** dialog box is displayed.
3. Click **Third-Party Software Update Catalogs**.
4. Click **Dell Business Client Updates Catalog**, right-click and select **Subscribe to Catalog**.
NOTE: As an administrator you can subscribe to categories based on Dell systems deployed in your environment.
5. Set the schedule to synchronize the catalog.
6. Set the System Center Configuration Manager Update preferences.
The new Dell Optimizer update gets automatically added in the Dell Business Client Update Catalog. Each device within the fleet pulls the update that is based on the policy preferences set in the System Center Configuration Manager Update. For more information, see Dell Third Party Update Catalog White paper at www.dell.com.

Creating log files

Use the following commands to generate the installer log file:

- /debuglog—exe file install switch
- /passthrough /debuglog—DUP switch

Command-line interface for Dell Optimizer

As an administrator you can use the following CLI commands for batch and scripting scenarios. You can view the location and filename of the CLI in C:\Program Files\Dell\DellOptimizer\do-cli.exe.


 **NOTE:** The return code is sent to stderr, and command output is sent to stdout.

Table 6. CLI Commands for Dell Optimizer

CLI Command	Description
/help	Use this command to display the list of available arguments.
/version	Use this command to display the current version of Dell Optimizer.
/get	Use this command to display all available settings and their properties. You can combine the command with additional options for specific setting details.
/configure	Use this command to configure a setting, and the command must be combined with additional options for a specific setting. These settings are dynamic, and it is not a static list.
/appperformance	Use this command to display the Applications feature settings and configuration information. The command must be used with additional options. These settings are dynamic, and it is not a static list.

Table 7. /get commands for Dell Optimizer

/get command	Details
/get	Use this command to display all settings details.
/get -name=Analytics.State	Use this command to display details about the analytics state.
/get -name=AppPerformance.State	Use this command to display details about the application performance state.
/get -name=Audio.Audio3D	Use this command to display details about the 3D audio state.
/get -name=Audio.AutoMute	Use this command to display details about the audio automute state.
/get -name=Audio.Environment	Use this command to display details about the audio environment setting.
/get -name=Audio.IsNXOSEnabled	Use this command to know if your system supports 3D audio over speakers.
/get -name=Audio.JackNotification	Use this command to display details about the audio jack state.
/get -name=Audio.State	Use this command to display details about the audio state.
/get -name=BatteryExtender.State	Use this command to display details about the battery extender state.
/get -category=<categoryname>	Use this command to display all settings and current values of the selected category.
/get -list categories	Use this command to display the name of all available feature categories. For example, Application, Audio, Power.
/get -name=DellOptimizerConfiguration.BetaFeatures	Use this command to display details about the Beta feature.
/get -name=DellOptimizerConfiguration.StickyBanners	Use this command to display details about the sticky banners component state.

Table 7. /get commands for Dell Optimizer (continued)

/get command	Details
<code>get</code> <code>-name=DellOptimizerConfiguration.Suggestions</code>	Use this command to display details about the suggestions component state.
<code>/get -name=DynamicCharge.State</code>	Use this command to display details about the dynamic charge state.
<code>/get -name=Privacy.EnablePrivacyNotifications</code>	Use this command to display details about the privacy notifications.
<code>/get</code> <code>-name=ProximitySensor.CameraBasedDetection</code>	Use this command to display details about the proximity sensor camera based detection state on products supporting Intel® Visual Sensing Technology.
<code>/get -name=</code> <code>ProximitySensor.EnableWithExternalMonitor</code>	Use this command to display details about the proximity sensor feature state when an external monitor is connected.
<code>/get -name=ProximitySensor.KeepAlive</code>	Use this command to display details about the proximity sensor keep alive state.
<code>/get -name=ProximitySensor.SnoozeTimer</code>	Use this command to display details about the proximity sensor snooze timer.
<code>/get -name=ProximitySensor.State</code>	Use this command to display details about the proximity sensor state.
<code>/get -name= ProximitySensor.WakeOnApproach</code>	Use this command to display details about the proximity sensor wake on approach state.
<code>/get -name=ProximitySensor.WalkAwayLock</code>	Use this command to display details about the proximity sensor walk away lock state.
<code>/get -name=ProximitySensor.WalkAwayLockTimer</code>	Use this command to display details about the proximity sensor walk away lock timer.
<code>/get -name=Network.AutoSwitch</code>	Use this command to display details about the network auto switch.
<code>/get</code> <code>-name=Network.ConferenceBandwidthPerformance</code>	Use this command to display details about the network conference bandwidth performance.
<code>/get -name=Network.OptimizeTraffic</code>	Use this command to display details about optimizing network traffic.
<code>/get -name=Network.OutdatedRouterWiFi</code>	Use this command to find out if your router Wi-Fi technology is outdated compared to your device.
<code>/get -name=Network.State</code>	Use this command to display details about the network state.
<code>/get -name=Telemetry.State</code>	Use this command to display current participation status in the Dell Optimizer Customer Experience Improvement Program.
<code>/get -name=Toast.GlobalNotification</code>	Use this command to display details about the global notifications.

Table 8. Configure commands for Dell Optimizer

/configure command	Details	Supported Values
<code>/configure</code> <code>-name=AppPerformance.State -value=</code>	Use this command to configure the application performance state value.	True and false
<code>/configure -name=Analytics.State</code> <code>-value=</code>	Use this command to configure the analytics state value.	True and false

Table 8. Configure commands for Dell Optimizer (continued)

/configure command	Details	Supported Values
/configure -name=Audio.Audio3D -value=	Use this command to configure the audio 3D value.	True and false
/configure -name=Audio.AutoMute -value=	Use this command to configure the audio automute value.	True and false
/configure -name=Audio.Environment -value=	Use this command to configure the audio environment value.	QuietRoom, NoisyOffice, MultipleVoices, and RecordingStudio
/configure -name=Audio.JackNotification -value=	Use this command to configure the state of the audio jack notification.	True and false
/configure -name=Audio.State -value=	Use this command to configure the audio state value.	True and false
/configure -name=BatteryExtender.State -value=	Use this command to configure the battery extender state value.	True and false
/configure -name=DellOptimizerConfiguration.BetaFeatures -value=	Use this command to configure the Beta feature value.	True and false
/configure -name=DellOptimizerConfiguration.StickyBanners -value=	Use this command to configure the sticky banners value.	True and false
/configure -name=DellOptimizerConfiguration.Suggestions -value=	Use this command to configure the suggestions component value.	True and false
/configure -name=DynamicCharge.State -value=	Use this command to configure the dynamic charge state value.	True and false
/configure -name=Privacy.EnablePrivacyNotifications -value=	Use this command to configure the privacy notifications value.	True and false
/configure -name=ProximitySensor.CameraBasedDetection -value=	Use this command to configure proximity sensor camera based detection state on products supporting Intel® Visual Sensing Technology.	True and false
/configure -name=ProximitySensor.EnableWithExternalMonitor -value=	Use this command to configure the state of proximity sensor features when system is connected to an external monitor.	True and false
/configure -name=ProximitySensor.KeepAlive -value=	Use this command to configure the proximity sensor keep alive state value.	True and false
/configure -name=ProximitySensor.SnoozeTimer -value=	Use this command to configure the proximity sensor snooze timer value for the walk away lock feature.	0, 30, 60, 90, and 120 minutes
/configure -name=ProximitySensor.WalkAwayLock -value=	Use this command to configure the proximity sensor walk away lock value.	True and false
/configure -name=ProximitySensor.WalkAwayLockTimer -value=	Use this command to configure the proximity sensor walk away lock timer value.	30, 60, and 120 seconds
/configure -name=ProximitySensor.WakeOnApproach -value=	Use this command to configure the proximity sensor wake on approach value.	True and false

Table 8. Configure commands for Dell Optimizer (continued)

/configure command	Details	Supported Values
/configure -name=Network.AutoSwitch -value	Use this command to configure the network auto switch value.	True and false
/configure -name=Network.ConferenceBandwidthPerformance -value	Use this command to configure the network conference bandwidth performance value.	True and false
/configure -name=Network.OptimizeTraffic -value	Use this command to configure the network traffic value optimization.	True and false
/configure -name=Network.State -value	Use this command to configure the network state.	True and false
/configure -name=Telemetry.State -value=	Use this command to configure Dell Optimizer Customer Experience Improvement Program.	True and false
/configure -name=Toast.GlobalNotification -value=	Use this command to configure the global notifications value.	True and false
/configure -name=<settingname> -lock=	Use this command to lock the specific setting from being changed by user.	True and false

Table 9. Application performance commands for Dell Optimizer

/AppPerformance command	Details
/AppPerformance -listProfiles	Use this command to display the list of applications that are in optimized state.
/AppPerformance -listLearningApps	Use this command to display the list of applications that are in learning state.
/AppPerformance -setPriority -profileName=<profile name> -priority=<value>	Use this command to set the priority of an application profile using the name.
/AppPerformance -setPriority -profileGuid=<profile guid> -priority=<value>	Use this command to set the priority of an application profile using the GUID.
/AppPerformance -restoreToDefault	Use this command to restore all settings back to default for optimized applications.
/AppPerformance -startLearning -profileName=<profile name> -processName=<value> -priority=<value>	Use this command to start the optimization process for the specified application.
/AppPerformance -pauseLearning -profileName=<profile name>	Use this command to pause optimization learning for the specific application.
/AppPerformance -resumeLearning -profileName=<profile name>	Use this command to resume optimization learning for the specific application.
/AppPerformance -deleteProfile -profileName=<profile name>	Use this command to delete an existing optimized application profile by name.
/AppPerformance -deleteProfile -profileGuid=<profile guid>	Use this command to delete an existing optimized application profile by GUID.
/AppPerformance -enableProfile -profileName=<profileName>	Use this command to enable an existing profile by name.
/AppPerformance -enableProfile -profileGuid=<profile guid>	Use this command to enable an existing profile by GUID.

Table 9. Application performance commands for Dell Optimizer (continued)

/AppPerformance command	Details
/AppPerformance -disableProfile -profileName=<profile Name>	Use this command to disable an existing profile by name.
/AppPerformance -disableProfile -profileGuid=<profile guid>	Use this command to disable an existing profile by GUID.
/AppPerformance -importProfile -profilePath=<profile file path>	Use this command to import an optimized app profile.
/AppPerformance -exportProfile -profileName=<profile Name> -profilePath=<profile file path>	Use this command to export an optimized app profile by name.
/AppPerformance -exportProfile -profileGuid=<profile guid> -profilePath=<profile file path>	Use this command to export an optimized app profile by GUID.

Table 10. Network commands for Dell Optimizer

/network command	Description	Supported values
/network -getnetworkwifidiags	Use this command to get the following information about your currently connected WiFi network: <ul style="list-style-type: none"> • Network name • Speed to router • Router class • Adapter class 	NA
/network -gettrafficpriority	Use this command to get the current priority order of network traffic types(conference, streaming, cloud).	NA
/network -settrafficpriority -priority=	Use this command to set the network traffic priority. You have to list the traffic types (conference, streaming, cloud) in priority order and separate them by commas.	"conference,streaming,cloud"

Table 11. Return codes for Dell Optimizer

CLI Return Codes	Condition
0	Success
1	Failure
2	Reboot required
3	Failed to configure the read-only setting
4	Failed to configure licensed feature
5	Dell Optimizer service not installed
6	Dell Optimizer service is disabled
7	Dell Optimizer service is not running
8	Another instance of CLI is active
9	Another instance of user interface is active
10	It requires administrator privilege

WMI Provider

Dell Optimizer includes a WMI provider to configure the application settings. The following two files are part of the Dell Optimizer download package:

- `doWmiProv.mof`—Dell Optimizer WMI Provider that is installed as part of the installer.
- `sms_def_delloptimizer.mof`—Dell Optimizer SMS MOF definition file available for Administrators.

The Inventory Agent uses the following custom Dell Optimizer data reporting definitions:

```
#pragma namespace ("\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\root\\\\\\\\\\\\\\\\dcim\\\\\\\\\\\\\\\\sysman\\\\\\\\\\\\\\\\DellOptimizer")
#pragma deleteclass ("EnumerationAttribute", NOFAIL)
#pragma deleteclass ("EnumerationAttribute", NOFAIL)
[ SMS_Report(TRUE),
SMS_Group_Name("Dell Optimizer Settings Inventory"),
SMS_Class_ID("DELL\\DELLOPTIMIZER_ENUMSETTINGS|1.0"),SMS_Namespace(FALSE),
Namespace("\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\root\\\\\\\\\\\\\\\\dcim\\\\\\\\\\\\\\\\sysman\\\\\\\\\\\\\\\\DellOptimizer")]Class
EnumerationAttribute : SMS_Class_Template
{[SMS_Report(TRUE),key] String AttributeName;
[SMS_Report(TRUE)] String DisplayName;
[SMS_Report(TRUE)] String CurrentValue;
[SMS_Report(TRUE)] Boolean IsLocked;
[SMS_Report(TRUE)] Uint32 PossibleValueCount;[SMS_Report(TRUE)] String
PossibleValues[];
};
```

Table 12. WMI provider

Feature	WMI Command
Enumerate all settings	<pre>wmic /NAMESPACE: \ \root\dcim\sysman\DellOptimizer PATH EnumerationAttribute get /value.</pre>
Enumerate a specific setting	<pre>wmic /NAMESPACE:\ \root\dcim\sysman\DellOptimizer PATH EnumerationAttribute.AttributeName="%1%" get /value.</pre>
Set the specific setting value	<pre>wmic /NAMESPACE:\ \root\dcim\sysman\DellOptimizer PATH DellOptimizerService.Name="DellOptimizerSe rvice" CALL SetAttribute AttributeName="%1" Value="%2".</pre>
Lock the specific settings	<pre>wmic /NAMESPACE:\ \root\dcim\sysman\DellOptimizer PATH DellOptimizerService.Name="DellOptimizerSe rvice" CALL LockAttribute AttributeName="%1" Locked=%2.</pre>

NOTE: You cannot configure Application, Performance, Profiles, and learning using Dell Optimizer WMI Provider. You must use the do-cli.exe file.

Feedback

1. In the home screen, click **v** and select **Give Feedback**.
The feedback page is displayed.
2. Provide your feedback on the scale of 1 to 10 for the following options:
 - How satisfied you are with Dell Optimizer?
 - How likely you recommend purchasing Dell systems because of Dell Optimizer?
3. Provide additional feedback, if any, and click **Send my comment**.

Frequently asked questions

Topics:

- [Application Optimization FAQs](#)
- [Application Messages FAQs](#)
- [Installation FAQs](#)
- [General FAQs](#)

Application Optimization FAQs

- Why do I see a notification or status stating a restart is required to apply optimization settings?
You can decide to reboot later but the changes that are applied to your system becomes effective only after you reboot the system. Some examples of optimized settings that require reboot are the ones that change processor hyper-threading, processor cores, and so on.
- Once an application is in the optimized state, why do I not see the report option in the Actions menu?
During the learning phase, the application is not engaged enough to determine performance improvements. Either the process is unintentionally interrupted by restarts or the system has turned off for an extended period.
- Why does my Latitude or OptiPlex only show CPU performance improvements?
Latitude and OptiPlex systems can only be optimized for CPU operations. Dell Precision Workstations can also be optimized for memory optimization gains.

Application Messages FAQs

- Why is the message **This application is managed by IT Administrator** displayed after launching the Dell Optimizer application from the Start Menu?
This message is displayed when an IT administrator deploys the Dell Optimizer application in headless mode. Users do not have access to the user interface of the application. To change this setting, uninstall and reinstall Dell Optimizer using **Apps & Features > Dell Optimizer Service**.
- Why is the message **Dell Optimizer service was not detected** displayed after launching the Dell Optimizer application from the Start Menu?
This issue occurs when Dell Optimizer is not installed properly. Uninstall and reinstall Dell Optimizer using **Apps & Features > Dell Optimizer Service**.
- Why is the message **Dell Optimizer service is not running** displayed after launching the Dell Optimizer application from the Start Menu?
Windows starts the default services once Windows 10 restarts. Dell Optimizer windows service is configured as automatic (delayed start), which may take two minutes after Windows 10 restart. If you do not restart your system, you can check or start the Dell Optimizer service using **Task Manager** or the **Services console**.

Installation FAQs

- Can I use Dell Optimizer on my non-Dell laptop or desktop?
No. Dell Optimizer software is designed to only optimize the performance of a Dell system.
- Why does the Dell Optimizer installer fail with a message stating that my system is not supported?

You cannot install Dell Optimizer on operating systems other than Windows 10 17134 or later. Dell Optimizer is only supported on Latitude, Dell Precision Workstations, and OptiPlex systems launched after March 2020.

- Why does the Dell Optimizer installer fail with a message **Dell Precision Optimizer must be removed before installation of Dell Optimizer?**

You cannot install both Dell Precision Optimizer and Dell Optimizer on the same system. You must uninstall Dell Precision Optimizer and then install Dell Optimizer.

General FAQs

- Why is my system getting locked within a short period when my Windows setting for screen lock is set up for a longer period?


Walk Away Lock settings in Proximity Sensor section of Dell Optimizer locks the system when the user is not in the field of view. The default lock timer is set to 60 seconds which is shorter than the default Windows screen lock timer. For more information, see [Proximity Sensor](#).

- Why is the Audio feature disabled?

There are two scenarios where the Audio feature is disabled:

- Your IT Administrator might have set the Audio feature to disabled and locked it.
- The audio driver is not installed on the system. Download the Realtek audio driver from [Dell.com](https://www.dell.com).

Contacting Dell

 **NOTE:** If you do not have an active Internet connection, you can find contact information from 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/region or region 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 www.dell.com/support.
2. Select your support category.
3. Verify your country/region 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 that is based on your need.