

# **Dell EMC PowerEdge MX7000 Enclosure**

## Technical Specifications

## Notes, cautions, and warnings

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

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

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

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# Enclosure overview

The Dell EMC PowerEdge MX7000 is the next-generation M1000e follow-on chassis and a revolutionary architecture set to be the future foundation of modular architecture.

The PowerEdge MX7000 enclosure is a 7U chassis that supports:

- Up to eight standard height, single-width sleds, or four standard height, double-width sleds.
- Up to seven Storage sleds can be populated in the enclosure.

**NOTE:** One compute node must be present and it must be mapped to a storage node.

- Up to six hot swappable power supply units.
- Up to two hot swappable management modules.
- Up to six I/O modules:
  - Four Fabric-A/B type IOMs
  - Two Fabric-C type IOMs
- Four front accessible hot swappable cooling fans.
- Five rear accessible hot swappable cooling fans.

For more information about dual management modules, see [Technical specifications](#).

## Topics:

- [Front view of the enclosure](#)
- [Back view of the enclosure](#)
- [Locating the information tag of your system](#)

# Front view of the enclosure

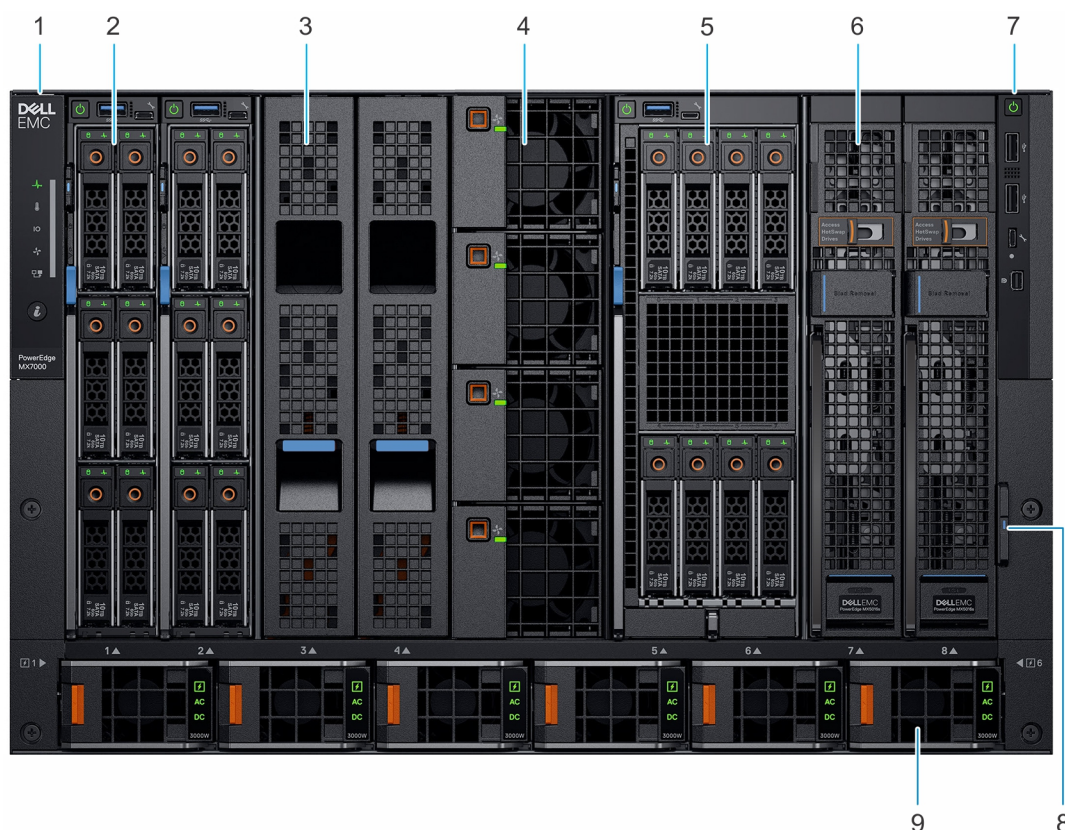


Figure 1. Front view of the enclosure

- |                              |                              |
|------------------------------|------------------------------|
| 1. Left control panel        | 2. Single-width compute sled |
| 3. Sled blank                | 4. Front fan (4)             |
| 5. Double-width compute sled | 6. Single-width storage sled |
| 7. Right control panel       | 8. Information tag           |
| 9. Power supply unit (6)     |                              |

## Control panel

### LCD touch panel

The LCD touch panel (optional) is on the left control panel of your enclosure.

The LCD touch panel displays the following options:

- System information
- System status
- Error messages
- QuickSync options - Available on the optional QuickSync LCD panel only.

**NOTE:** The LCD touch panel is not a hot swappable module. Before you replace the module, power off the enclosure and disconnect the power from the chassis.

The LCD touch panel enables you to scroll or swipe on the screen. The options available on the LCD touch panel are:

- **Welcome Screen** - Enables you to select your native language and the default LCD home page.
- **Main Menu** - Enables you to access the LCD functionality such as Identify, Settings, QuickSync, Alerts, Help, and Powered off.
- **QuickSync** - Enables you to connect OpenManage Mobile to the enclosure.
- **Alerts** - Enables you to view a list of all the critical and warning alerts of the enclosure.

- **Network Settings** - View and configure the chassis management IP address.
- **LCD Configuration** - Enables you to configure the LCD options such as View and Modify, View only, Disabled, Present, and Not present.
- **Settings** - Enables you to edit the Network settings, LCD Language, and Home screen.
- **Service Interaction** - Displays the impact on drive mapping when a server or sled is replaced in the enclosure.
- **System Info** - Displays the Model number, Asset tag, and Service tag of the enclosure.
- **Chassis Power Off** - Enables you to perform a Shutdown or Graceful shutdown.

## Left control panel

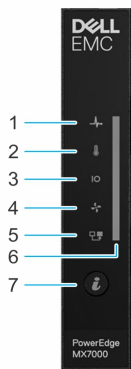
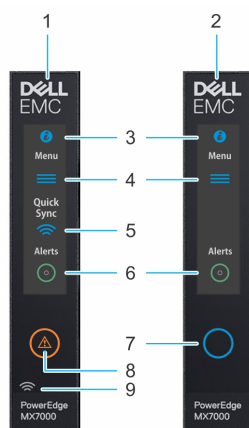


Figure 2. Left control panel - Status LED

Table 1. Left control panel - LED indicator description

Indicator	Description	Status	
1	System health	Blinks amber for 2 seconds and is OFF for 1 second when the chassis health has degraded. By default, the LED is unlit.	
2	System temperature	Blinks amber for 2 seconds and is OFF for 1 second when a thermal fault exists on the enclosure. By default, the LED is unlit. <b>NOTE:</b> A thermal fault includes excessive ambient temp, I/O modules thermal status, PSU thermal status, and fan status.	
3	I/O module health	Blinks amber for 2 seconds and is OFF for 1 second when an I/O module is faulty. By default the LED is unlit.	
4	Fan health	Blinks amber for 2 seconds and is OFF for 1 second when a front or rear mounted fan fails or has a warning. By default, the LED is unlit.	
5	Stack or group	Indicates that the enclosure is a member of a group.	
6	LED status bar	Indicator status	Description
		Solid blue	Indicates that the enclosure is healthy.
		Blinking blue	Indicates that the system ID mode is active.
		Blinking amber	Indicates that the system is experiencing a fault.
7	System ID button	Allows you to identify the system or the installed sleds.	



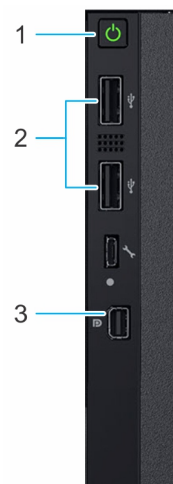
**Figure 3. Left control panel - LCD options**

**Table 2. Left control panel - LCD panel description**

Indicator	Description	Status	
1	LCD with Quick Sync	LCD enabled with Quick Sync module	
2	LCD without Quick Sync	LCD without Quick Sync module	
3	System ID indicator on LCD panel	This option is a button/indicator on the LCD panel to identify the chassis, or choose specific sleds to identify.	
4	Settings	This option button provides access to the inventory and configuration data of the MX7000 enclosure. It includes the Network Settings, System Information, (Model, Asset Tag, Service Tag), and Language Settings.	
5	Optional QuickSync indicator (Only for LCD with QuickSync 2.0)	<p>Enables access to QuickSync related controls and connection information.</p> <p><b>NOTE:</b> QuickSync feature allows you to manage your system using mobile devices. This feature is only available on certain configurations.</p> <p><b>NOTE:</b> If not ordered at the time of purchase, the QuickSync module will not be available on the enclosure.</p>	
6	System alerts indicator	<b>System ID Indicator status</b>	<b>Description</b>
		<b>Solid green</b>	The chassis has no degraded or critical alerts.
		<b>Solid amber</b>	The chassis has critical or degraded health alerts.
		<p><b>NOTE:</b> This option button/indicator shows an amber colored alert icon and a combined critical and degraded alert count. Pressing the button takes the user to the alert details menu.</p>	
7	LCD activation button/ System ID indicator/ Identification indicator	<p>Allows you to identify the enclosure.</p> <p><b>NOTE:</b> Press the button to activate the LCD.</p>	
		<b>System ID Indicator status</b>	<b>Description</b>
		<b>Blinking blue</b>	System ID is active.
		<b>Blinking amber</b>	Chassis alerts are present.
8	Error indicator	The error indicator is displayed on the LCD when there are any critical/warning alerts on the enclosure.	
9	Optional Quick Sync wireless status indicator	Displays the connection status of the enclosure with any QuickSync enabled device.	



## Right control panel

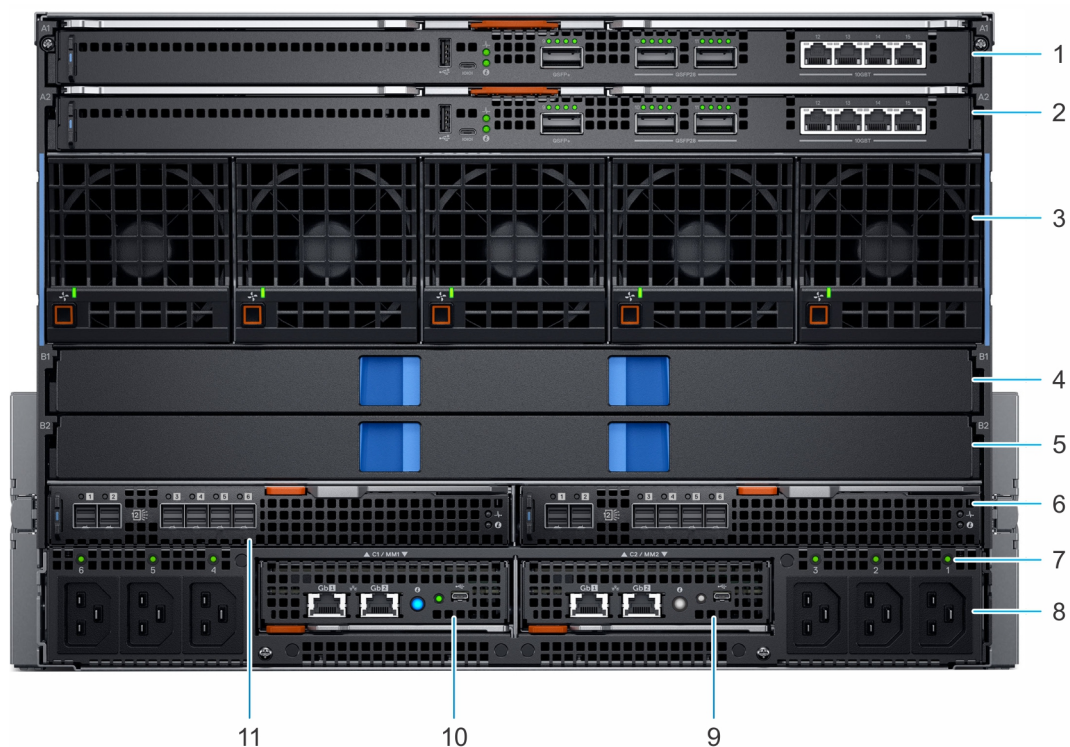


**Figure 4. Right control panel**

1. Power button
2. USB 2.0 port (2)
3. Mini DisplayPort

**NOTE:** For more information on the ports, see [Technical specifications](#).

## Back view of the enclosure



**Figure 5. Back view of the enclosure**

- |                                      |                                   |
|--------------------------------------|-----------------------------------|
| 1. Slot for Fabric A1                | 2. Slot for Fabric A2             |
| 3. Rear fans (5)                     | 4. Slot for Fabric B1             |
| 5. Slot for Fabric B2                | 6. Slot for Fabric C2             |
| 7. Power cable connection status LED | 8. C22 Power inlet connectors (6) |

- 9. Management Module 2
- 11. Slot for Fabric C1

- 10. Management Module 1

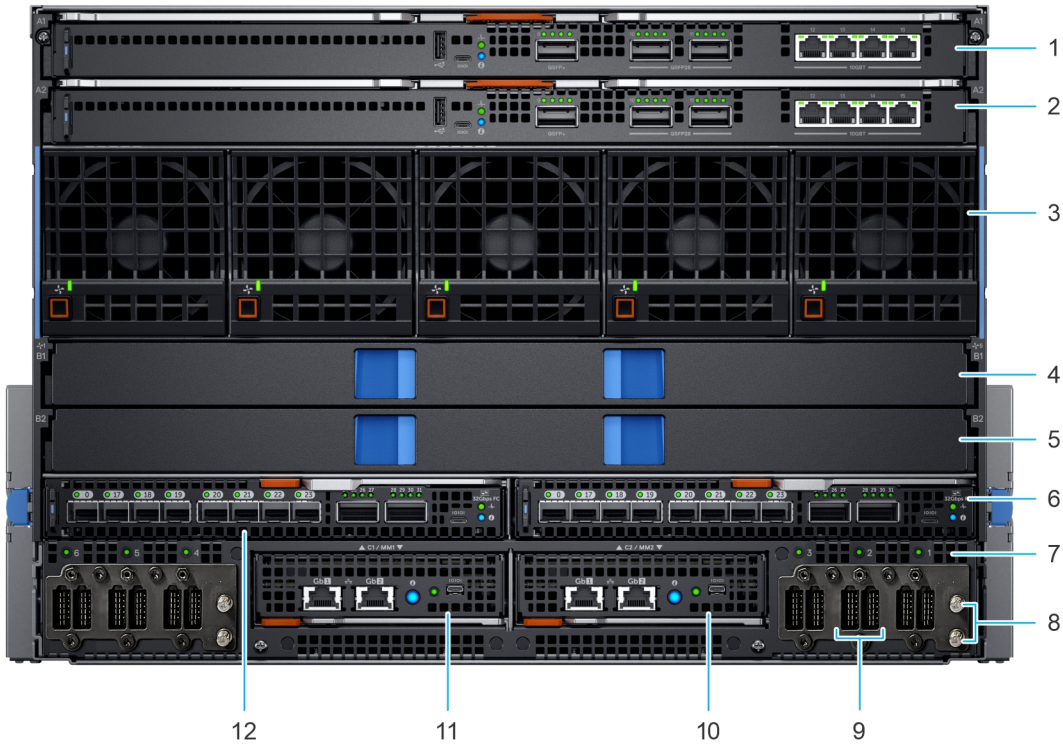


Figure 6. Back view of the enclosure with DC power supplies

- |                                      |                         |
|--------------------------------------|-------------------------|
| 1. Slot for Fabric A1                | 2. Slot for Fabric A2   |
| 3. Rear fans (5)                     | 4. Slot for Fabric B1   |
| 5. Slot for Fabric B2                | 6. Slot for Fabric C2   |
| 7. Power cable connection status LED | 8. Grounding post       |
| 9. Power inlet connectors            | 10. Management module 2 |
| 11. Management module 1              | 12. Slot for Fabric C1  |

**NOTE:** For more information about the ports and connectors, see [Technical specifications](#).

## Locating the information tag of your system

You can identify your system using the unique express service code and Service Tag. Pull out the information tag in front of the system to view the express service code and Service Tag. Alternatively, the information may be on a sticker on the back of the system chassis. The mini Enterprise Service Tag (EST) is found on the back of the system chassis. Dell uses this information to route support calls to the appropriate personnel.

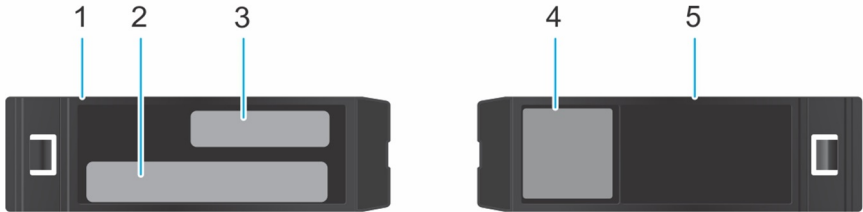


Figure 7. Locating the information tag of your system

- 1. Information tag (Top view)
- 2. MAC address and secure password label



**NOTE:** If you have opted for default access to the management module, the default password is available on the Information tag. This label is blank, if you have not opted for secure default access, then the default username and password are **root** and **calvin**.

3. Express Service Tag
4. Quick resource locator
5. Information tag (Bottom view)

## Technical specifications

The technical and environmental specifications of your system are outlined in this section.

**NOTE:** Internal cable connectors are not hot-pluggable.

### Topics:

- Chassis dimensions
- Chassis weight
- Fan specifications
- PSU specifications
- Ports and connectors specifications
- PowerEdge MX modules ports and connectors
- Video specifications
- Environmental specifications

## Chassis dimensions

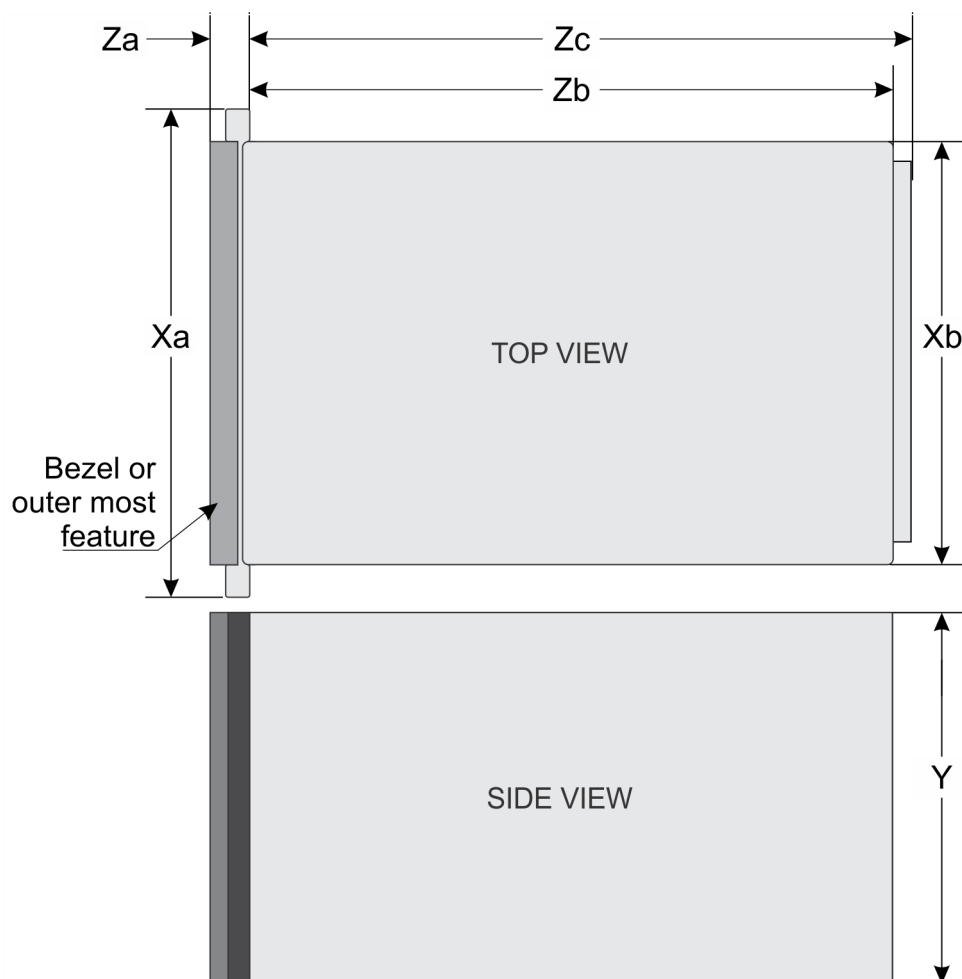


Figure 8. Dimensions of the PowerEdge MX7000

**Table 3. Dimensions of the PowerEdge MX7000**

Description	Dimension
Xa	482 mm (18.98 inches)
Xb	445 mm (17.52 inches)
Y	307.4 mm (12.11 inches)
Zb	811.6 mm (31.96 inches)
Zc	816.6 mm (32.15 inches)

## Chassis weight

**Table 4. Chassis weight**

Enclosure	Minimum weight	Maximum weight (fully populated)
PowerEdge MX7000	82 kg (180 lbs)	182 kg (400 lbs)

## Fan specifications

The PowerEdge MX7000 enclosure supports four front accessible hot-swap cooling fans and five rear accessible hot-swap cooling fans. The cooling fan assembly ensures that the key components of the server such as the sleds, Fabrics, and I/O modules get adequate air circulation to keep them cool. A cooling fan failure can result in overheating and may lead to damage.

**Table 5. Supported fans**

Fan location	Front	Rear
Size	60 mm	80 mm
Number of fans	4	5
Redundancy	3+1	4+1

## PSU specifications

The PowerEdge MX7000 enclosure supports up to six AC or DC power supply units (PSUs).


**Table 6. PSU specifications**


Description	Specification
PSU	6 x 3000 W AC or DC
Class	Platinum
Heat dissipation (maximum)	1205 BTU/hr
Frequency	50/60 Hz
Voltage	100–240 V AC, autoranging -48 V DC to -60 V DC
Current	6 x 16 A for AC input 6 x 83.2 A for DC input
Inrush current (AC)	<ul style="list-style-type: none"> <li>Maximum 40 A per power supply for 10 ms or less</li> <li>Maximum 50 A per power supply for 1.2 ms or less</li> </ul>


**Table 6. PSU specifications (continued)**

Description	Specification
Inrush current (DC)	The DC PSU inrush conforms to the maximum inrush current characteristics for telecommunications and datacom equipment at nominal voltage and maximum load as described in ETSI EN 132-2 V2.5.1 (2016-10).
Connector	AC or DC power connector

 **CAUTION:** Mixed high line and low line AC inputs in the same enclosure is not supported.

 **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

 **NOTE:** In an ideal input voltage condition and over the entire enclosures ambient operating range, the AC inrush current may reach 120 A per power supply for 10 ms or less.

 **NOTE:** This enclosure is also designed to connect to the IT power enclosures with a phase-to-phase voltage not exceeding 240 V.

Class A system- warning statement for -48VDC power supply.

警告使用者：

此為甲類資訊技術設備，於居住的環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

E44S (本型式係準系統DC機種)

**Figure 9. Warning statement**


## Ports and connectors specifications

### USB ports

The PowerEdge MX7000 enclosure supports two Type A, USB 2.0 ports on the front panel.

### Mini DisplayPort


The PowerEdge MX7000 enclosure supports one Mini DisplayPort (mini DP) on the front panel.

 **NOTE:** You must use a mini DP dongle to connect the enclosure to a VGA display.

# PowerEdge MX modules ports and connectors


## PowerEdge MX740c

Table 7. PowerEdge MX740c externally accessible connectors

Connector	Description
USB ports	<ul style="list-style-type: none"><li>One USB 3.0-compliant port on the front of the sled.</li><li>One USB 3.0-compliant internal port.</li><li>One micro USB 2.0-compliant port for iDRAC Direct on the front of the sled.</li></ul> <p> <b>NOTE:</b> The micro USB 2.0-compliant port on the front of the sled can only be used as an iDRAC Direct port.</p>


## PowerEdge MX750c

Table 8. PowerEdge MX750c externally accessible connectors

Connector	Description
USB ports	<ul style="list-style-type: none"><li>One USB 3.0-compliant port on the front of the sled.</li><li>One micro USB 2.0-compliant port for iDRAC Direct on the front of the sled.</li></ul> <p> <b>NOTE:</b> The micro USB 2.0-compliant port on the front of the sled can only be used as an iDRAC Direct port.</p>

## PowerEdge MX840c

Table 9. PowerEdge MX840c externally accessible connectors

Connector	Description
USB ports	<ul style="list-style-type: none"><li>One USB 3.0-compliant port on the front of the sled.</li><li>One USB 3.0-compliant port internal port.</li><li>One micro USB 2.0-compliant port for iDRAC Direct on the front of the sled.</li></ul> <p> <b>NOTE:</b> The micro USB 2.0-compliant port on the front of the sled can only be used as an iDRAC Direct port.</p>

## MX7116n Fabric Expander Module

Table 10. MX7116n Fabric Expander Module externally accessible connectors

Connector	Description
Externally accessible connectors	<ul style="list-style-type: none"><li>2 QSFP28-DD connections to the MX7116n</li></ul>

## MX9116n Fabric Switching Engine

Table 11. MX9116n Fabric Switching Engine externally accessible connectors

Connector	Description
Externally accessible connectors	<ul style="list-style-type: none"><li>12 QSFP28-DD ports that can be configured as:<ul style="list-style-type: none"><li>2 x 40 GbE or 2 x 100 GbE ports for uplinks</li><li>8 x 10 GbE or 8 x 25 GbE ports for rack servers</li></ul></li></ul>

**Table 11. MX9116n Fabric Switching Engine externally accessible connectors**

Connector	Description
	<ul style="list-style-type: none"> <li>2 QSFP28 uplink ports that can be configured as: <ul style="list-style-type: none"> <li>1 x 40 GbE</li> <li>1 x 100 GbE</li> <li>2 x 50 GbE</li> <li>4 x 10 GbE</li> <li>4 x 25 GbE</li> </ul> </li> <li>2 QSFP28 unified ports that can be configured as: <ul style="list-style-type: none"> <li>1 x 40 GbE</li> <li>1 x 100 GbE</li> <li>2 x 50 GbE</li> <li>4 x 10 GbE</li> <li>4 x 25 GbE</li> <li>8 x 8/ 16/ 32 GbE Fibre Channel mode</li> </ul> </li> </ul>

## MX9002m Management Module

**Table 12. MX9002m Management Module externally accessible connectors**

Connector	Description
Externally accessible connectors	<ul style="list-style-type: none"> <li>Two x 1G-BaseT Ethernet ports</li> <li>One x Micro-B USB port</li> </ul>

## MX5108n Ethernet Switch

**Table 13. MX5108n Ethernet Switch externally accessible connectors**

Connector	Description
Externally accessible connectors	<ul style="list-style-type: none"> <li>2 x 100 GbE QSFP28 uplink ports</li> <li>1 x 40 GbE QSFP+ uplink port</li> <li>4 x 10GBASE-T uplink ports</li> <li>USB Serial and USB Flash ports</li> </ul>

## MXG610s Fibre Channel Switch

**Table 14. MXG610s Fibre Channel Switch externally accessible connectors**

Connector	Description
USB port	One micro USB 2.0-compliant port on the front of the sled.
Fibre Channel transceiver	16 external ports supporting 8/ 16/ 32 Gbps speeds using 8 SFPs and 2 QSFPs.

## PowerEdge MX 10GBASE-T Ethernet Pass-Through Module

**Table 15. PowerEdge MX 10GBASE-T Ethernet Pass-Through Module externally accessible connectors**

Connector	Description
Fibre Channel transceiver	16 external ports supporting 10 GbE connections



## PowerEdge MX 25 Gb Ethernet Pass-Through Module

**Table 16. PowerEdge MX 25 Gb Ethernet Pass-Through Module externally accessible connectors**

Connector	Description
Fibre Channel transceiver	16 external ports supporting 25 GbE connections

## Video specifications

The management module supports an integrated Matrox G200eW3 graphics controller with a 16 MB video frame buffer.

**Table 17. Supported video resolution options**

Resolution	Refresh rate Hz	Color depth (bits)
1024 x 768	60	8, 16, 32
1280 x 800	60	8, 16, 32
1280 x 1024	60	8, 16, 32
1360 x 768	60	8, 16, 32
1440 x 900	60	8, 16, 32
1600 x 900	60	8, 16, 32
1600 x 1200	60	8, 16, 32
1680 x 1050	60	8, 16, 32
1920 x 1080	60	8, 16, 32
1920 x 1200	60	8, 16, 32

**NOTE:** 1920 x 1080 and 1920 x 1200 resolutions are only supported in reduced blanking mode.

## Environmental specifications

**NOTE:** For additional information about environmental measurements for specific system configurations, see [www.dell.com/poweredgemanuals](http://www.dell.com/poweredgemanuals).

**Table 18. Temperature specifications**

Temperature	Specifications
Storage	–40°C to 65°C (–40°F to 149°F)
Maximum temperature gradient (Operating and storage)	20°C/h (36°F/h)

**Table 19. Relative humidity specifications**

Relative humidity	Specifications
Storage	5% to 95% RH with 33°C (91°F) maximum dew point. Atmosphere must be noncondensing always.
Operating	10% to 80% RH with 29°C (84.2°F) maximum dew point.

**Table 20. Maximum vibration specifications**

Maximum vibration	Specifications
Operating	0.26 G <sub>rms</sub> at 5 Hz to 350 Hz (all axis)
Storage	1.88 G <sub>rms</sub> at 10 Hz to 500 Hz (vertical axis)

**Table 21. Maximum shock pulse specifications**

Maximum shock pulse	Specifications
Operating	Shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms.
Storage	Shock pulses in the positive z axis of 71 G for up to 2 ms. Shock pulses in the positive and negative x and y axis of 20 G for up to 7 ms.

**Table 22. Maximum altitude specifications**

Maximum altitude	Specifications
Operating	3048 m (10,000 ft)
Storage	12,000 m (39,370 ft)

**Table 23. Operating temperature derating specification**

Operating temperature derating	Specifications
Up to 35°C (95°F)	Maximum temperature reduces by 1°C/300 m (1°F/547 ft), above 950 m (3,117 ft).
35°C to 40°C (95°F to 104°F)	Maximum temperature reduces by 1°C/175 m (1°F/319 ft), above 950 m (3,117 ft).
40°C to 45°C (104°F to 113°F)	Maximum temperature reduces by 1°C/125 m (1°F/228 ft), above 950 m (3,117 ft).

## Standard operating temperature

**Table 24. Standard operating temperature specifications**

Standard operating temperature	Specifications
Continuous operation (For altitude less than 950 m or 3117 ft)	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.

## Expanded operating temperature

**Table 25. Expanded operating temperature specifications**

Expanded operating temperature	Specifications
Continuous operation	5°C to 40°C at 5% to 85% RH with 29°C dew point. <i>i</i> <b>NOTE:</b> Outside the standard operating temperature (10°C to 35°C), the system can operate continuously in temperatures as low as 5°C and as high as 40°C. For temperatures 35°C to 40°C, derate maximum allowable temperature by 1°C per 175 m (1°F per 319 ft) above 950 m (3,117 ft).
≤ 1% of annual operating hours	–5°C to 45°C at 5% to 90% RH with 29°C dew point. <i>i</i> <b>NOTE:</b> Outside the standard operating temperature (10°C–35°C), the system can operate down to –5°C or up to 45°C for a maximum of 1% of its annual operating hours.

**Table 25. Expanded operating temperature specifications (continued)**

Expanded operating temperature	Specifications
	For temperatures between 40°C and 45°C, derate maximum allowable temperature by 1°C per 125 m (1°F per 228 ft) above 950 m (3,117 ft).

**NOTE:** When operating in the expanded temperature range, the performance of the system may be impacted.

**NOTE:** When operating in the expanded temperature range, ambient temperature warnings may be reported on the LCD panel and in the System Event Log.

## Expanded operating range

- The operating temperature is specified for a maximum altitude of 950 m for expanded operating range.
- Do not perform cold start at 5°C or lower, due to hard drive constraints.
- Redundant power supplies are required.

## Expanded operating temperature restrictions

For more information about the expanded operating temperature restrictions, see the Installation and Service Manual for the PowerEdge MX sleds at [www.dell.com/poweredgemanuals](http://www.dell.com/poweredgemanuals).

**Table 26. Expanded operating temperature restrictions**

System	C30	C35	C40E45
Dell EMC PowerEdge MX7000 including the fans, Management Module, and PSUs	No restrictions	No restrictions	No restrictions
Fabrics A and B modules	No restrictions	No restrictions	The MX9116n is not supported.
Fabric C I/O modules	No restrictions	No restrictions	No restrictions

## Particulate and gaseous contamination specifications

The following table defines the limitations that help avoid any damages to the IT equipment and/or failure from particulates and gaseous contamination: If the levels of particulates or gaseous pollution exceed the specified limitations and result in equipment damage or failure, you may need to rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

**Table 27. Particulate contamination specifications**

Particulate contamination	Specifications
Air Filtration	<p>Data center air filtration defines that, ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit.</p> <p><b>NOTE:</b> This condition applies to data center environments only. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor.</p> <p><b>NOTE:</b> Air entering the data center must have MERV11 or MERV13 filtration.</p>
Conductive dust	<p>Air must be free of conductive dust, zinc whiskers, or other conductive particles.</p> <p><b>NOTE:</b> This condition applies to data center and nondata center environments.</p>

**Table 27. Particulate contamination specifications (continued)**

Particulate contamination	Specifications
Corrosive dust	<ul style="list-style-type: none"> <li>Air must be free of corrosive dust.</li> <li>Residual dust present in the air must have a deliquescent point less than 60% relative humidity.</li> </ul> <p><b>NOTE:</b> This condition applies to data center and nondata center environments.</p>

**Table 28. Gaseous contamination specifications**

Gaseous contamination	Specifications
Copper Coupon Corrosion	<300 Å/month per Class G1 defines that, ANSI/ISA71.04-1985.
Silver Coupon Corrosion	<200 Å/month defines that, AHSRAE TC9.9.

**NOTE:** Maximum corrosive contaminant levels measured at ≤50% relative humidity.

# System diagnostics and indicator codes

The diagnostic indicators on the system front panel display system status during system startup.

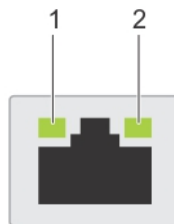
The following sections contain information about the chassis LEDs and indicator codes for Dell EMC PowerEdgeMX7000 system.

## Topics:

- [NIC indicator codes](#)
- [PSU indicators](#)
- [Drive indicator codes](#)
- [Fan module indicator codes](#)
- [Management module indicator codes](#)

## NIC indicator codes

Each NIC on the back of the system has indicators that provide information about the activity and link status. The activity LED indicator indicates if data is flowing through the NIC, and the link LED indicator indicates the speed of the connected network.



**Figure 10. NIC indicator codes**

1. Link LED indicator
2. Activity LED indicator

**Table 29. NIC indicator codes**

Status	Condition
Link and activity indicators are off.	The NIC is not connected to the network.
Link indicator is green, and activity indicator is blinking green.	The NIC is connected to a valid network at its maximum port speed, and data is being sent or received.
Link indicator is amber, and activity indicator is blinking green.	The NIC is connected to a valid network at less than its maximum port speed, and data is being sent or received.
Link indicator is green, and activity indicator is off.	The NIC is connected to a valid network at its maximum port speed, and data is not being sent or received.
Link indicator is amber, and activity indicator is off.	The NIC is connected to a valid network at less than its maximum port speed, and data is not being sent or received.
Link indicator is blinking green, and activity is off.	NIC identify is enabled through the NIC configuration utility.

# PSU indicators



Figure 11. PSU indicators

- 1. PSU health indicator
- 2. AC supply status indicator
- 3. DC output status indicator



Figure 12. PSU indicators for DC power supply

- 1. PSU health indicator
- 2. DC supply status indicator
- 3. DC output status indicator

Table 30. PSU health indicator codes

PSU health indicator	Indicator state
PSU functioning normally	Green
PSU faulty	Blinking amber
PSU mismatch	ON for 1 second, and then 5 blinks and OFF (non-repeating cycle).

Table 31. AC indicator codes

AC indicator	Indicator state
AC source available	ON
AC source unavailable or power cable unplugged	OFF

Table 32. DC indicator codes

DC indicator	Indicator state
DC output available	ON

Table 32. DC indicator codes (continued)

DC indicator	Indicator state
DC output unavailable	OFF

## Drive indicator codes

The LEDs on the drive carrier indicates the state of each drive. Each drive carrier in your system has two LEDs: an activity LED (green) and a status LED (bicolor, green/amber). The activity LED flashes whenever the drive is accessed.



Figure 13. Drive indicators

- 1. Drive activity LED indicator
- 2. Drive status LED indicator
- 3. Drive capacity label



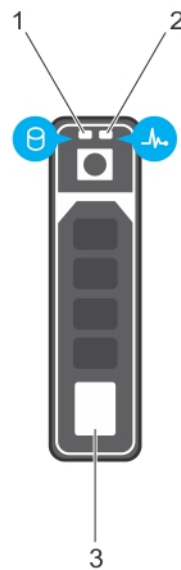
Figure 14. Drive indicators on the drive and the mid drive tray backplane

- 1. Drive activity LED indicator
- 2. Drive status LED indicator
- 3. Drive capacity label



**Figure 15. Drive indicators**

1. Drive activity LED indicator
2. Drive status LED indicator
3. Drive capacity label



**Figure 16. Drive indicators on the drive and the mid drive tray backplane**

1. Drive activity LED indicator
2. Drive status LED indicator
3. Drive Capacity Label

**NOTE:** If the drive is in the Advanced Host Controller Interface (AHCI) mode, the status LED indicator does not turn on.

**Table 33. Drive indicator codes**

Drive status indicator code	Condition
Flashes green twice per second	Identifying drive or preparing for removal.
Off	Drive ready for removal. <b>NOTE:</b> The drive status indicator remains off until all drives are initialized after the system is turned on. Drives are not ready for removal during this time.
Flashes green, amber, and then turns off	Predicted drive failure.
Flashes amber four times per second	Drive failed.
Flashes green slowly	Drive rebuilding.
Solid green	Drive online.
Flashes green for three seconds, amber for three seconds, and then turns off after six seconds	Rebuild stopped.



# Fan module indicator codes



Figure 17. Front fan module



Figure 18. Rear fan module

Table 34. Fan module indicator codes

Fan indicators	Indicator state
Fan functioning normally - Front/ Rear	Solid green
Fan failure	Blinks amber 2 seconds and 1 second OFF

**NOTE:** When the chassis is powered off with the AC or DC connection that is powered on, only the rear fans are powered off.

# Management module indicator codes

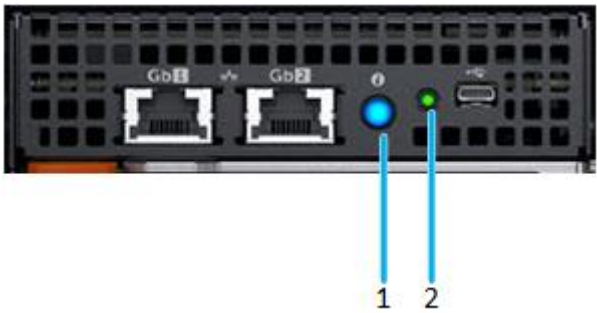


Figure 19. Management module indicators

1. Status indicator, Identification button/ Indicator - Dual color: Blue and amber
2. Power indicator - Green


**Table 35. Management module indicator behavior**

Status	Indicator combination
Healthy chassis/ Management module (Standby)	Power indicator ON (green), status indicator OFF
Healthy chassis/ Management module (Active)	Power indicator ON (green), status indicator blue ON
Healthy chassis/ Management module (Identifying mode)	Power indicator ON (green), status indicator blue blinking <i>i</i> <b>NOTE:</b> Available only when the management module is active.
Faulty chassis/ Management module (Active)	Power indicator ON (green), status indicator amber blinking
Faulty chassis/ Management module (Identifying mode)	Power indicator ON (green), status indicator blue blinking
Failed chassis/ Management module: Mode 1	Power indicator OFF, status indicator OFF <i>i</i> <b>NOTE:</b> Hardware failure prevents the management module from powering.
Failed chassis/ Management module: Mode 2	Power indicator OFF, status indicator Amber-solid <i>i</i> <b>NOTE:</b> <ul style="list-style-type: none"> <li>The management module starts boot but is unable to boot to one or more operating system partitions.</li> <li>The management module boots but detects a failure such as a network switch failure, or a voltage regulator failure.</li> </ul>

## Documentation resources

This section provides information about the documentation resources for your system.

To view the document that is listed in the documentation resources table:

- From the Dell EMC support site:
  1. Click the documentation link that is provided in the Location column in the table.
  2. Click the required product or product version.
-  **NOTE:** To locate the product name and model, see the front of your system.
- 3. On the Product Support page, click **Manuals & documents**.
- Using search engines:
  - Type the name and version of the document in the search box.

**Table 36. Documentation resources**

Task	Document	Location
Setting up your system	<p>For more information about installing and securing the system into a rack, see the Rail Installation Guide included with your rack solution.</p> <p>For information about installing the system into a rack, see the Rack documentation included with your rack solution or the <i>Getting Started Guide</i> document that is shipped with your system.</p> <p>For information about installing the system into a rack, see the Rack documentation included with the <i>Getting Started With Your System</i> document that is shipped with your system.</p> <p>For information about installing the system into the enclosure, see the <i>Getting Started Guide</i> document that is shipped with your system.</p> <p>For information about setting up your system, see the <i>Getting Started Guide</i> document that is shipped with your system.</p>	<a href="http://www.dell.com/xemanuals">www.dell.com/xemanuals</a> <a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>
Configuring your system	<p>For information about the iDRAC features, configuring and logging in to iDRAC, and managing your system remotely, see the Integrated Dell Remote Access Controller User's Guide.</p> <p>For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the RACADM CLI Guide for iDRAC.</p> <p>For information about Redfish and its protocol, supported schema, and Redfish Eventing implemented in iDRAC, see the Redfish API Guide.</p> <p>For information about iDRAC property database group and object descriptions, see the Attribute Registry Guide.</p>	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>

**Table 36. Documentation resources (continued)**

Task	Document	Location
	For information about Intel QuickAssist Technology, see the Integrated Dell Remote Access Controller User's Guide.  For information about Intel QuickAssist Technology, see the Integrated Dell Remote Access Controller User's Guide.	
	For information about earlier versions of the iDRAC documents.  To identify the version of iDRAC available on your system, on the iDRAC web interface, click <b>? &gt; About</b> .	<a href="https://www.dell.com/idracmanuals">https://www.dell.com/idracmanuals</a>
	For information about installing the operating system, see the operating system documentation.	<a href="https://www.dell.com/operatingsystemmanuals">https://www.dell.com/operatingsystemmanuals</a>
	For information about updating drivers and firmware, see the Methods to download firmware and drivers section in this document.	<a href="http://www.dell.com/support/drivers">www.dell.com/support/drivers</a>
Managing your system	For information about system management software offered by Dell, see the Dell OpenManage Systems Management Overview Guide.	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>
	For information about setting up, using, and troubleshooting OpenManage, see the Dell OpenManage Server Administrator User's Guide.	<a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a> > OpenManage Server Administrator
	For information about installing, using, and troubleshooting Dell OpenManage Enterprise, see the Dell OpenManage Enterprise User's Guide.	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
	For information about installing and using Dell SupportAssist, see the Dell EMC SupportAssist Enterprise User's Guide.	<a href="https://www.dell.com/serviceabilitytools">https://www.dell.com/serviceabilitytools</a>
	For information about partner programs enterprise systems management, see the OpenManage Connections Enterprise Systems Management documents.	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
Managing your system	For information about viewing inventory, performing configuration, and monitoring tasks, remotely turning on or off systems, and enabling alerts for events on servers and components using the Dell Chassis Management Controller (CMC), see the CMC User's Guide.	<a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a> > Chassis Management Controllers
Working with the Dell PowerEdge RAID controllers	For information about understanding the features of the Dell PowerEdge RAID controllers (PERC), Software RAID controllers, or BOSS card and deploying the cards, see the Storage controller documentation.	<a href="http://www.dell.com/storagecontrollermanuals">www.dell.com/storagecontrollermanuals</a>
Understanding event and error messages	For information about the event and error messages generated by the system firmware and agents that monitor system components, go to <a href="http://qrl.dell.com">qrl.dell.com</a> > <b>Look Up &gt; Error Code</b> , type the error code, and then click <b>Look it up</b> .	<a href="http://www.dell.com/qrl">www.dell.com/qrl</a>
Fan Control Board firmware update and	For information about updating the Fan Control Board firmware and setting the chassis type to accommodate either PowerEdge C6320 or	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>

**Table 36. Documentation resources (continued)**

<b>Task</b>	<b>Document</b>	<b>Location</b>
Set Chassis Type procedure	PowerEdge C6320p sleds in the PowerEdge C6300 enclosure, see the Fan Control Board firmware update and Set Chassis Type procedure section in this document.	
Troubleshooting your system	For information about identifying and troubleshooting the PowerEdge server issues, see the Server Troubleshooting Guide.	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>

## Getting help

### Topics:

- [Contacting Dell](#)
- [Documentation feedback](#)
- [Accessing system information by using QRL](#)
- [Receiving automated support with SupportAssist](#)

## Contacting Dell

Dell provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer service issues:

1. Go to [www.dell.com/support/home](http://www.dell.com/support/home)
2. Select your country from the drop-down menu on the lower right corner of the page.
3. For customized support:
  - a. Enter your system Service Tag in the **Enter your Service Tag** field.
  - b. Click **Submit**.  
The support page that lists the various support categories is displayed.
4. For general support:
  - a. Select your product category.
  - b. Select your product segment.
  - c. Select your product.  
The support page that lists the various support categories is displayed.
5. For contact details of Dell Global Technical Support:
  - a. Click [Contact Technical Support](#)
  - b. The **Contact Technical Support** page is displayed with details to call, chat, or e-mail the Dell Global Technical Support team.

## Documentation feedback

You can rate the documentation or write your feedback on any of our Dell EMC documentation pages and click **Send Feedback** to send your feedback.

## Accessing system information by using QRL

You can use the Quick Resource Locator (QRL) located on the information tag in the front of the system, to access the information about the PowerEdge system. The QRL is located on the top of the system cover.

Ensure that your smartphone or tablet has the QR code scanner installed.

The QRL includes the following information about your system:

- How-to videos
- Reference materials, including the Installation and Service Manual, LCD diagnostics, and mechanical overview
- Your system service tag to quickly access your specific hardware configuration and warranty information
- A direct link to Dell to contact technical assistance and sales teams

1. Go to [www.dell.com/qrl](http://www.dell.com/qrl) and navigate to your specific product or

2. Use your smartphone or tablet to scan the model-specific Quick Resource (QR) code on your system or in the Quick Resource Locator section.

## Quick Resource Locator for PowerEdge MX7000 enclosure



Figure 20. Quick Resource Locator for PowerEdge MX7000 enclosure

## Receiving automated support with SupportAssist

Dell EMC SupportAssist is an optional Dell EMC Services offering that automates technical support for your Dell EMC server, storage, and networking devices. By installing and setting up a SupportAssist application in your IT environment, you can receive the following benefits:

- **Automated issue detection** — SupportAssist monitors your Dell EMC devices and automatically detects hardware issues, both proactively and predictively.
- **Automated case creation** — When an issue is detected, SupportAssist automatically opens a support case with Dell EMC Technical Support.
- **Automated diagnostic collection** — SupportAssist automatically collects system state information from your devices and uploads it securely to Dell EMC. This information is used by Dell EMC Technical Support to troubleshoot the issue.
- **Proactive contact** — A Dell EMC Technical Support agent contacts you about the support case and helps you resolve the issue.

The available benefits vary depending on the Dell EMC Service entitlement purchased for your device. For more information about SupportAssist, go to [www.dell.com/supportassist](http://www.dell.com/supportassist).