

MX7000 At-the-box Chassis Health Status and Alerts from the LCD control panel

Revisions

Date	Description
Jan 2019	Initial release

Acknowledgements

This paper was produced by the following members of the Dell EMC storage engineering team:

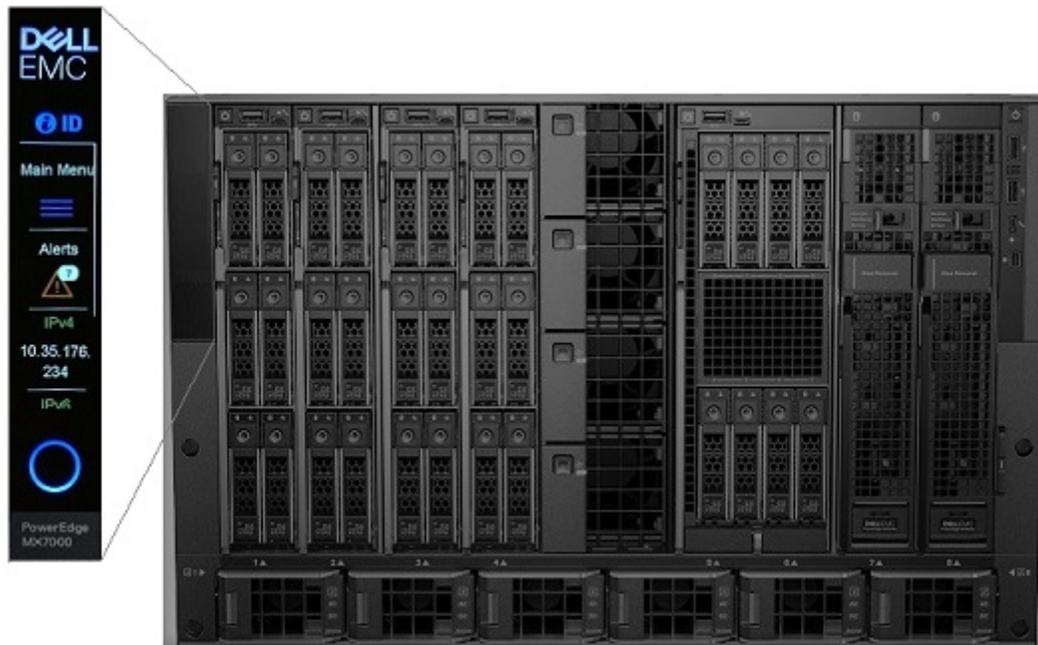
Author: Santosh Bidaralli and Christopher Poblete

Contents

Revisions.....	2
Acknowledgements.....	2
Introduction	4
Navigating the LCD.....	5
Viewing Alerts count and subsystem list.....	5
Viewing subsystem alerts	7
Viewing alert details	8
Amber LED notification	8
Dismiss Amber LED notification	10
References.....	11

Introduction

PowerEdge MX7000 next-generation modular chassis with the touch screen LCD on the left control panel provides an enhanced graphical capability to the at-the-box chassis management.



The graphical LCD panel provides the following:

- Overall chassis health status
- Alerts list by subsystem when chassis state is not healthy
- Basic system information
- Management Module network settings and configuration
- Quick Sync 2 for OpenManage Mobile connectivity
- Chassis and sled system identify
- Chassis power off and firmware update notification

This technical white paper describes the Management Module Alerts feature of the touch screen LCD panel. Other features of the LCD are described in details in a separate technical white paper.

Touch screen LCD panel located on the left control panel of PowerEdge MX7000 provides a feature to view and manage Management Module alerts.

There are multiple screens that provide information related to MM alerts such as:

- Alerts count
- Subsystem component's list with corresponding number of alerts
- Subsystem alerts
- Individual alert details along with recommended resolution
- An option to dismiss the amber LED status

Navigating the LCD

The LCD panel is vertically oriented with dimension of 15.66 mm wide by 62.64 mm tall with viewable resolution of 120 by 480 pixels. It supports touch and has no physical buttons. Navigating the LCD is touch based.

The interactive display in the LCD consists of a menu that contains a series of buttons arranged vertically. Each button has a text box and an optional icon. When a menu has more buttons that can fit within the viewable screen, a scroll bar (Figure-1 item 1) appears as a white line on the right side of the screen. To see more buttons to appear, you can swipe (Figure-1 item 3) the screen up or down. To select a button on the menu and display its content, press or touch the button (Figure-1 item 2).

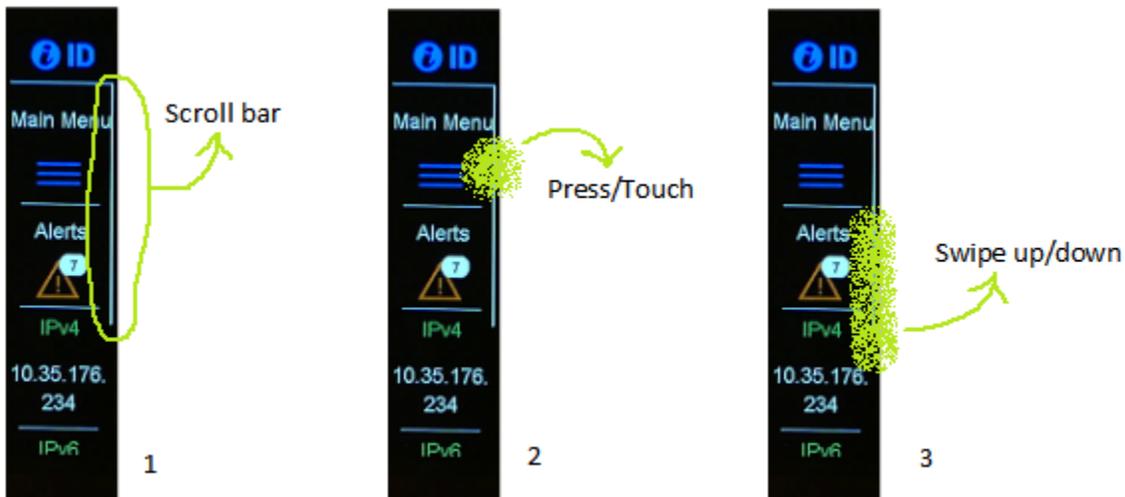


Figure 1 LCD navigation guide

As a guide, the user touch interaction in the figures in this document is depicted as a light green airbrush. Although it is seemingly located at the corner of the screen so that it does not block the button text/icon, the actual press or touch is more effective if done in the middle.

Viewing Alerts count and subsystem list

The chassis Management Module alerts count can be viewed from the LCD Home menu (Figure-2) or from the Main Menu (Figure-3). It represents the total count of all the alerts from different subsystem. Pressing or touching Alerts button will navigate the user to subsystem component list which individually represents its corresponding alert count. At any point of time these subsystems can have maximum of 10 alerts.

Viewing Alerts count and subsystem list

Alerts from Home menu

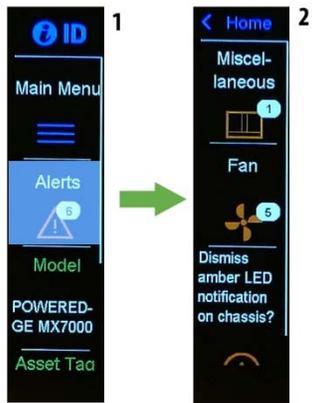


Figure 2 Viewing alerts from Home menu

Alerts from Main menu

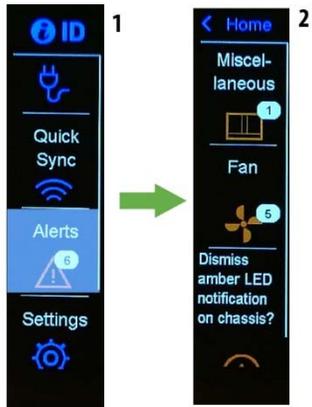


Figure 3 Viewing alerts from Home menu

Table 1 below describes the list of subsystem alerts for PowerEdge MX7000 Management Module:

Subsystem	Max alert count	MM GUI display	LCD display
Fan	10	Fan	Fan
Miscellaneous	10	Miscellaneous	Miscellaneous
PowerSupply	10	PowerSupply	PowerSupply
Temperature	10	Temperature	Temperature
CMC	10	CMC	CMC
System.Modular.1	10	Sled-1	Sled-1
System.Modular.2	10	Sled-2	Sled-2
System.Modular.3	10	Sled-3	Sled-3
System.Modular.4	10	Sled-4	Sled-4
System.Modular.5	10	Sled-5	Sled-5

Viewing subsystem alerts

System.Modular.6	10	Sled-6	Sled-6
System.Modular.7	10	Sled-7	Sled-7
System.Modular.8	10	Sled-8	Sled-8
IOM.Slot.A1	10	IOM-A1	IOM-A1
IOM.Slot.A2	10	IOM-A2	IOM-A2
IOM.Slot.B1	10	IOM-B1	IOM-B1
IOM.Slot.B2	10	IOM-B2	IOM-B2
IOM.Slot.C1	10	IOM-C1	IOM-C1
IOM.Slot.C2	10	IOM-C2	IOM-C2

1. PowerEdge MX7000 Chassis Management Module Alert Subsystem List

Viewing subsystem alerts

Pressing or touching any subsystem button from the Alerts menu will display the corresponding alert's list for that component. Figure 4 shows the subsystem alert list for Miscellaneous and Fan. Miscellaneous is subsystem for any component that does not belong to other subsystems.

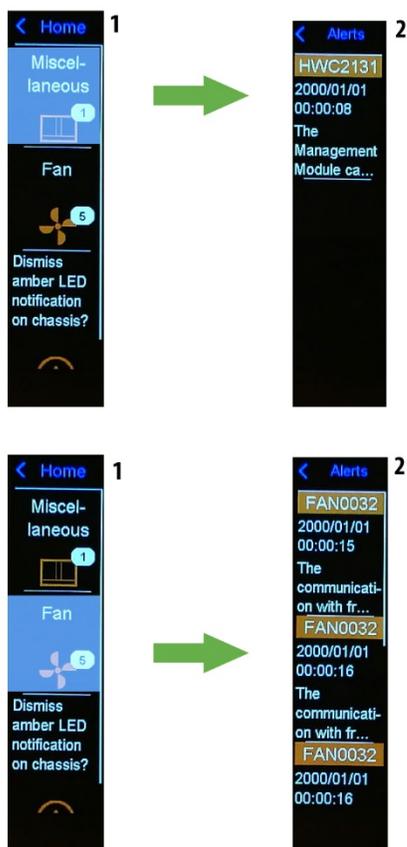


Figure 4 Subsystem alerts Viewing alert details

Viewing alert details

User can pressing or touch on any of the alert from a specific subsystem alert list to view its details. Figure 5 shows the alert details of the selected alert for the miscellaneous subsystem alert list.

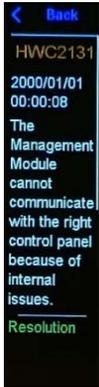


Figure 5 Alert details

User can view the resolution for the specific alert on alert details menu by scrolling down. Figure 6 shows the resolution for the alert selected in Figure 5.

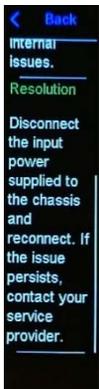


Figure 6 Alert resolution

Amber LED notification

LCD panel also has a circular LED (ring) that represents if the management module has alerts. This LED ring remains OFF when the LCD touchscreen is in use. If it is left idle for more than 10 minutes, the backlight on the LCD panel turns OFF and LED ring starts blinking amber. Figure 7 shows LCD state after the idle timeout with alerts.



Figure 7 Amber LED indicating alerts

Rear of the chassis has a status LED that blinks amber in addition to the LED ring located on the front of the chassis. Figure 8 shows the LED status at the rear of the chassis.

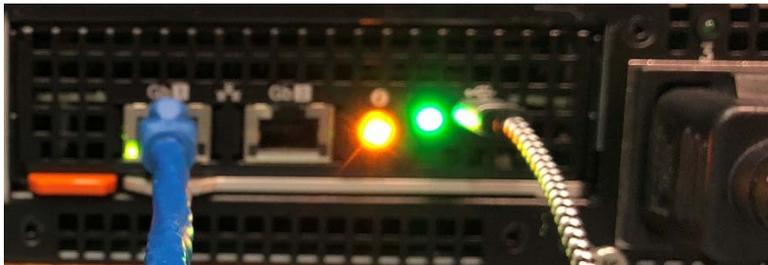


Figure 8 Amber LED at the rear of the chassis

This LED ring turns solid blue when there are no alerts in the management module after the idle timeout. Figure 8 shows LCD state after the idle timeout when there are no alerts.



Figure 9 LCD with no alerts

Status LED at the rear of the chassis turns solid blue when there are no alerts.



Figure 10 Solid Blue LED at the rear of the chassis

Dismiss Amber LED notification

Amber LED notification can be dismissed temporarily by touching or pressing “Dismiss amber LED notification on chassis?” and pressing “Yes” button on the confirmation menu. The amber Alert LED will remain dismissed until Management Module reset or a new alert is reported.

References

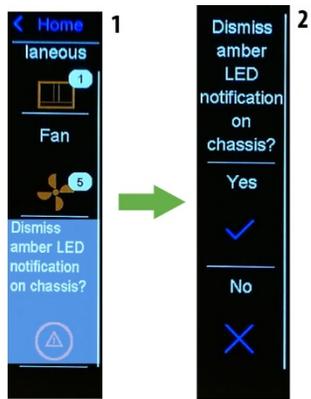


Figure 11 Dismiss amber LED notification

References

- OpenManage Mobile (OMM) is a mobile device client application for systems management that supports PowerEdge MX7000. See the OMM User' s Guide for more information.
- OpenManage Enterprise Modular (OME-M) is the chassis management firmware embedded in the Management Module for PowerEdge MX7000. See the OME-M User' s Guide for more information.