

# System Information and Notification from the MX7000 graphical 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:

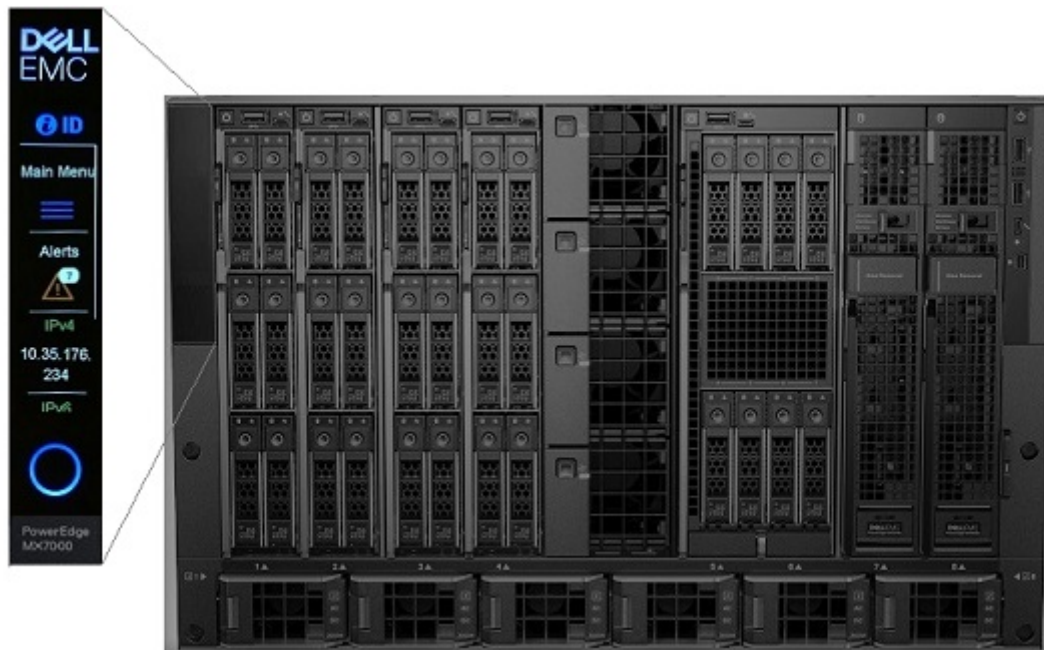
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## Introduction

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
- Fault 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 whitepaper describes the at-the-box access to system information and notification using the PowerEdge MX7000 graphical LCD control panel. Other features of the LCD are described in details in a separate technical white paper.

## Identifying parts of the LCD panel

Understanding the parts of the LCD panel helps you to effectively use its features. There are three sections to the LCD panel.

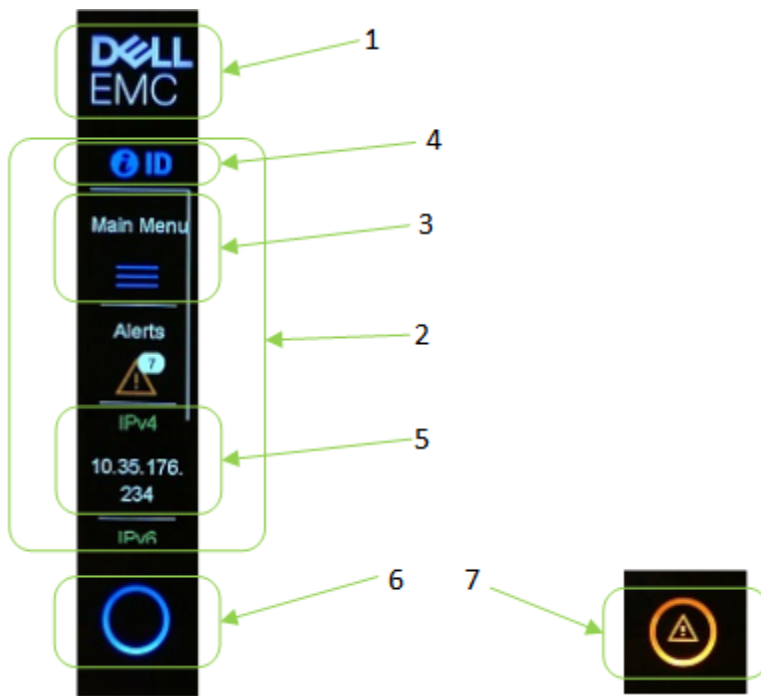


Figure 1 Parts of the LCD panel

The top section of the LCD is the logo (Figure-1 item 1). The logo is always lit when there is AC power input to the chassis and the Management Module is functional. The logo has no response to touch.

The middle section of the LCD is the active touch screen (Figure-1 item 2) where the user interaction occurs. The screen is arranged as a menu that contains buttons. Each button (Figure-1 item 3) contains a combination of icon and text. A button can contain just an icon (Figure-1 item 4) or just texts (Figure-1 item 5).

When idle, the active touch screen section is in the OFF state (sleep) and shows a blank screen. Touching any part of the screen section will turn ON the screen (wake-up) and shows the Home menu. If the screen in the ON state is idle for 10 minutes, the screen will go to the OFF state.

The bottom section of the LCD is combination of status LED and an activation icon (Figure-1 item 5). It responds to touch. The combo section can be in an OFF state or ON state. In an ON state, the LED can be solid/blinking color blue (Figure-1 item 6) or amber with warning sign (Figure-1 item 7).

When idle, the combo LED is in the ON state while the active touch screen section is OFF. Touching the combo section will turn OFF the combo section and will turn ON the active touch screen section.

## 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).

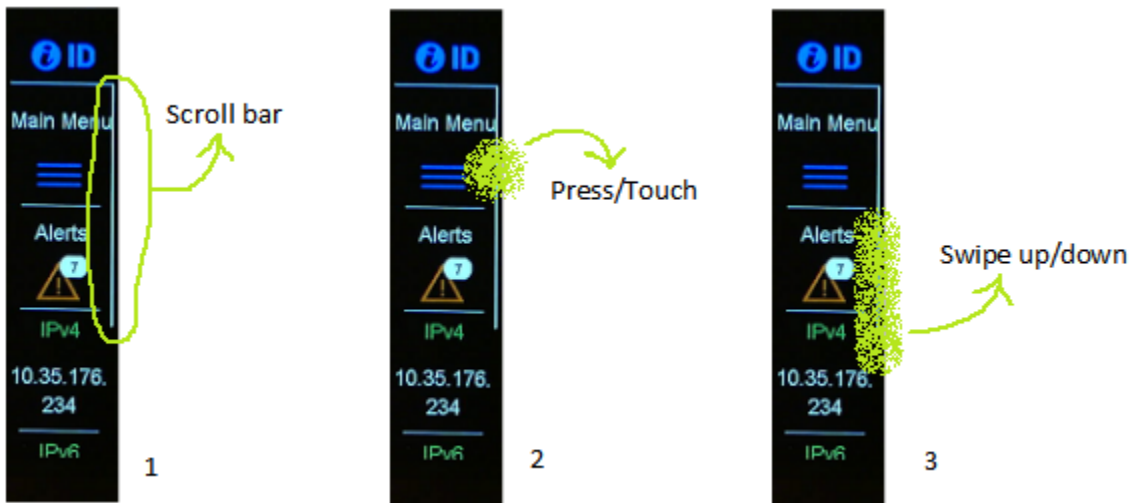


Figure 2 LCD navigation guide

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.

TIP: For a more responsive swipe, lightly touch the screen, then slowly and lightly make a sliding movement.

## Out-of-the-box initial deployment with LCD

MX7000 out-of-the-box and AC power is applied, the first time you see the LCD screen will show you the initialize wizard starting from the Select Language menu (Figure-3 item 1). See “Customizing the LCD display language” section for more info.

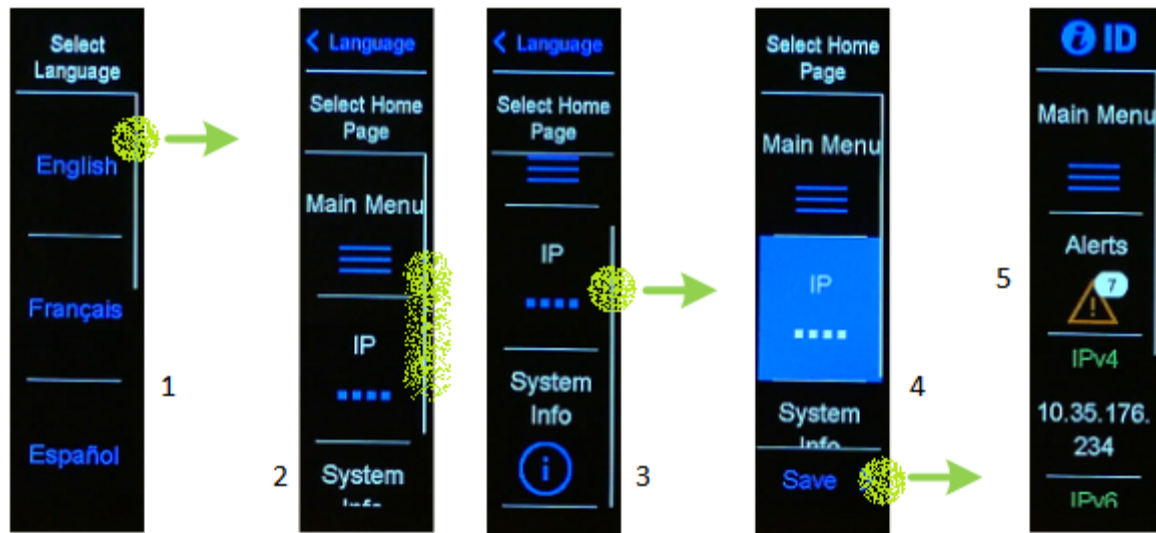


Figure 3 Initial deployment with LCD

After selecting the LCD text language, the next menu shows you the Select Home Page (Figure-3 item 2). Swipe the screen to show more selection (Figure-3 item 3). See “Customizing the LCD home menu” section for more info. When selected, the menu button shows blue highlight (Figure-3 item 4). Press the Save button

(Figure-3 item 4) for the selection to take effect. The selected Home menu (Figure-3 item 5) is displayed and the wizard is complete.

## System information

### System information from Home menu

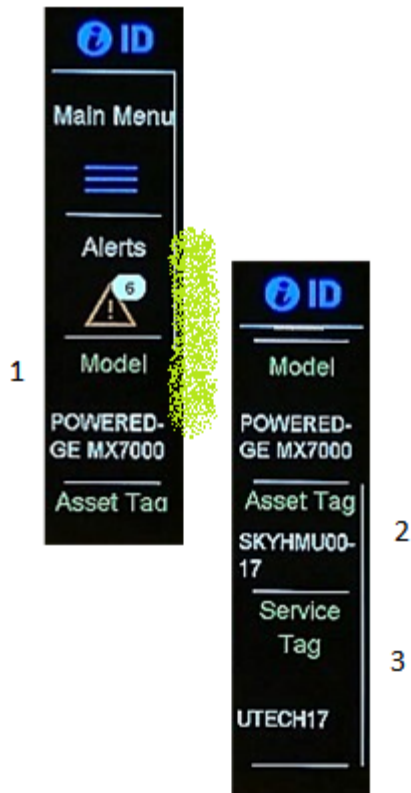


Figure 4 System information from Home menu

System information is available from the Home menu if it is configured for the Home-with-SysInfo (Figure-4 item 1). Swipe the menu to see the rest of the menu. It contains the following:

- Model (Figure-4 item 1)
- Asset Tag (Figure-4 item 2)
- Service Tag (Figure-4 item 3)

### System information from Settings

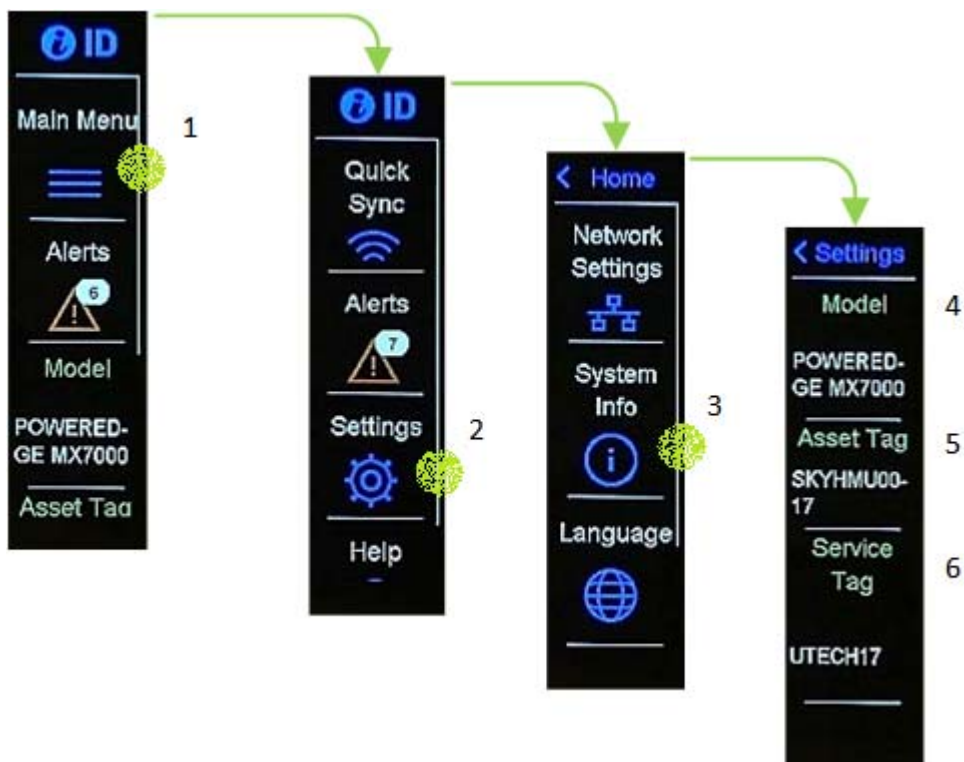


Figure 5 System information from Settings

System information is available from the Settings menu. Starting from the Home menu, select Main menu (Figure-5 item 1). Then select Settings (Figure-5 item 2). Then select System Info (Figure-5 item 3) where next screen contains the following:

- Model (Figure-5 item 4)
- Asset Tag (Figure-5 item 5)
- Service Tag (Figure-5 item 6)

## Chassis power state and notification

### Power state in Main menu



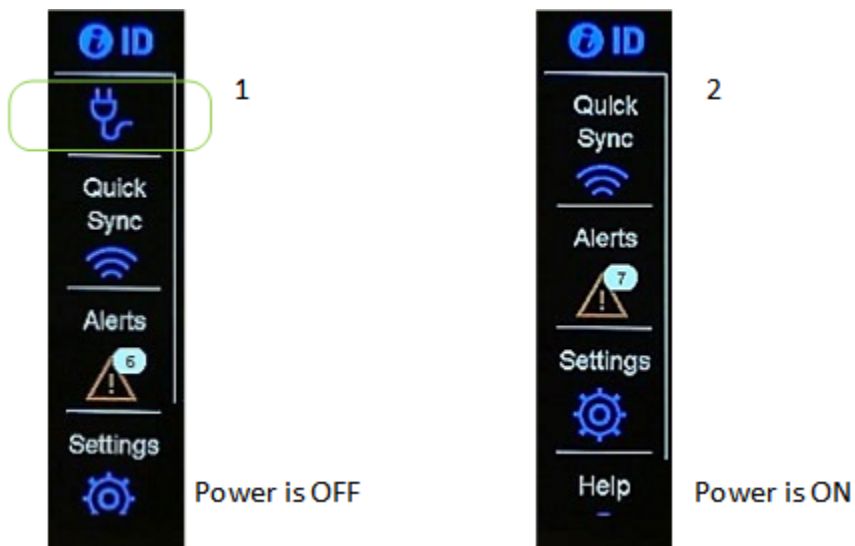


Figure 6 Power state in LCD

When the chassis power is in the OFF state, the LCD Main menu displays an unplug icon (Figure-6 item 1) at the top. If the unplug icon is pressed, a power is OFF message is displayed (Figure-7 item 4).

When the chassis power is in the ON state, the LCD Main menu display does not have the unplug icon (Figure-6 item 2).

#### Notification when power turns OFF

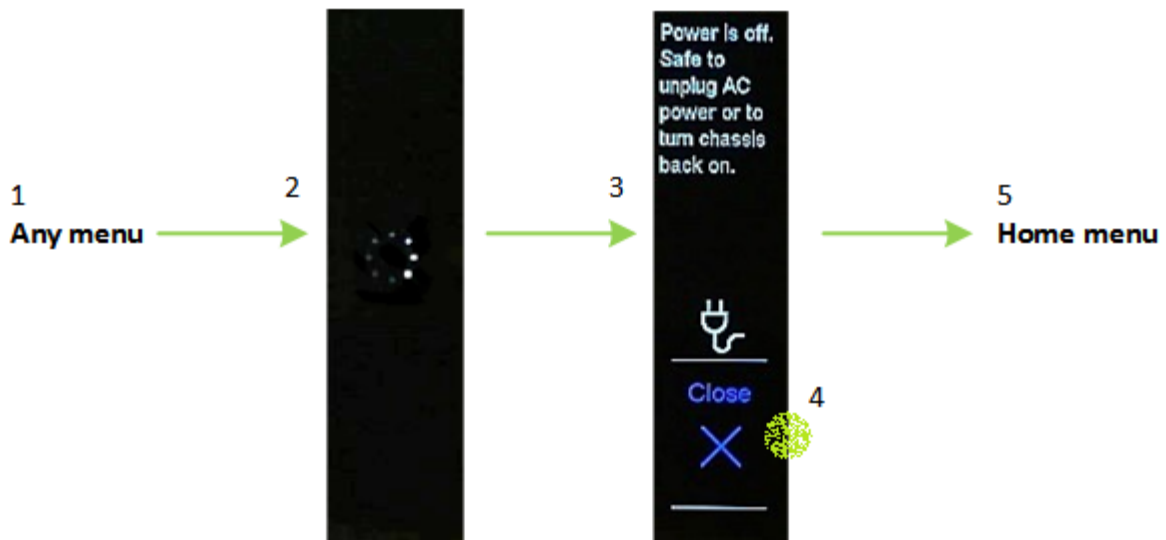


Figure 7 Power OFF notification in LCD

When the chassis power is turned ON by pressing the power button on the right control panel of the chassis, the LCD display in any menu (Figure-7 item 1) will change to display the in-progress spinning icon (Figure-7 item 2). The spinning icon indicates that the power OFF request is in progress. Once all components in the chassis is successfully powered OFF, the LCD will display the power OFF notification (Figure-7 item 3). Pressing the Close button (Figure-7 item 4) will return to the Home menu (Figure-7 item 5).

## Update notification

### Management module firmware update

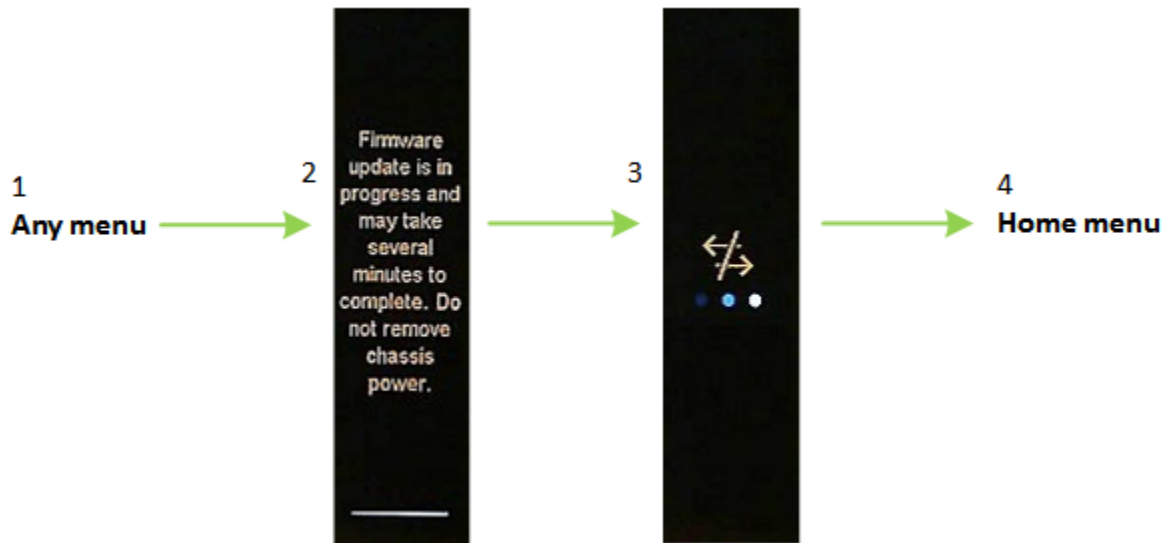


Figure 8 MM firmware update notification

When the Management Module firmware is being updated, the LCD display in any menu (Figure-8 item 1) will change to display the firmware-update-in-progress message (Figure-8 item 2). The message is displayed for a few seconds and then change to display the LCD-lost-communication reconnect in-progress icon (Figure-8 item 3). A step in the firmware update is reboot of the firmware. In this step the LCD is expected to lose communication. The reconnect in-progress icon is displayed to notify you that the LCD is in process of reconnecting. Once the MM firmware is booted and ready, the LCD will change to display the Home menu (Figure-8 item 4).



Figure 9 LCD firmware update notification

When the LCD micro-controller firmware is being updated, the LCD display will turn off the active touch screen section and the combo LED icon will rapidly blink amber (Figure-9 item 1). Upon completion of the update, the LCD will display the Home menu.

## Chassis health notification

### Chassis not-healthy notification

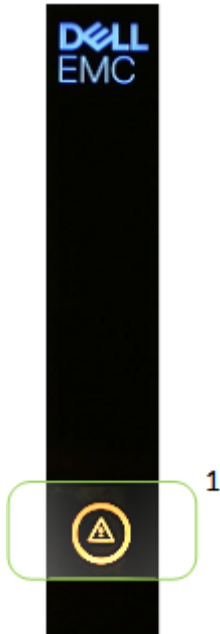


Figure 10 Combo LED when chassis is not healthy

When the chassis state is not healthy and the LCD active touch screen section is OFF, the combo LED icon will slowly blink amber (Figure-10 item 1). A chassis state is not healthy when there is at least one warning or critical fault (Alert) currently affecting the health of the chassis or chassis components.

### Dismiss chassis not-healthy notification

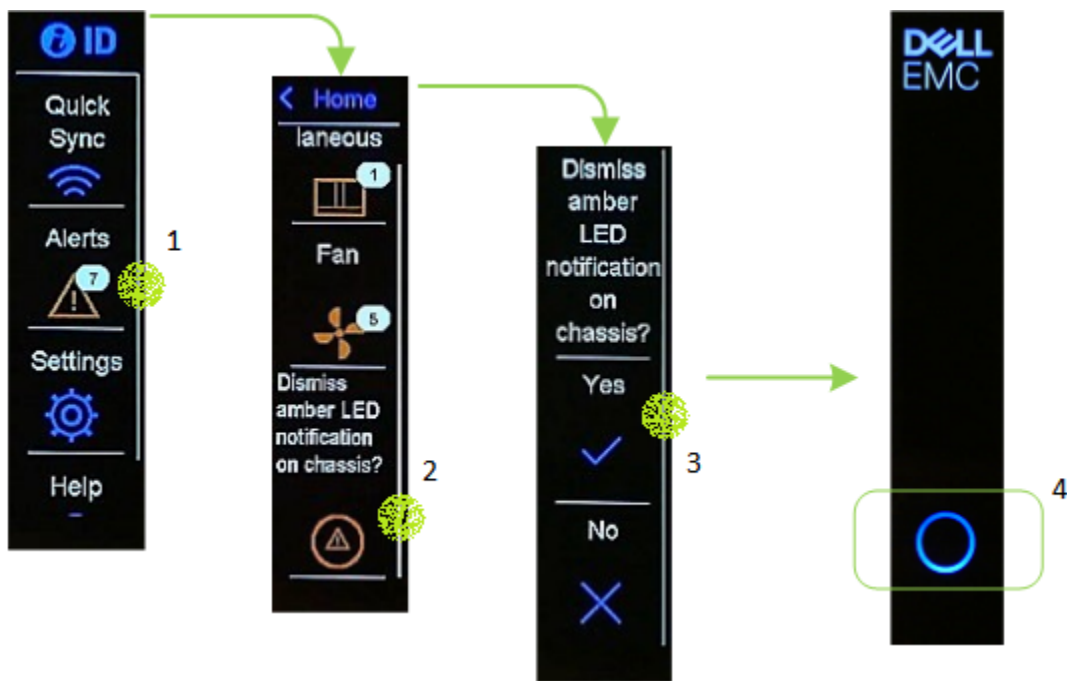


Figure 11 Dismiss chassis not healthy notification

When the chassis state is not healthy and you have acknowledged all the associated faults (Alerts), you may dismiss the chassis not-healthy notification. From the Main menu, press the Alerts button (Figure-11 item 1). In the next menu, press the Dismiss button (Figure-11 item 2). Confirm to proceed with Dismiss by pressing the Yes button (Figure-11 item 3). When the active touch screen section turns OFF due to idle, the combo LED icon will light up in blue color (Figure-11 item 4). This indicates that there is no further notification that requires your attention.

## Help button

Pressing the “Help” button from the Main menu (Figure-9 item 1) shows you the QR code and the URL (Figure-9 item 2) that can be used to find more information about the specific PowerEdge MX7000 chassis using its service tag.



Figure 12 Help button

## 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.