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PowerEdge MX7000 Management Module QuickSync using the front panel LCD

Revisions

Date	Description
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DELLEMC PowerEdge

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

The QuickSync LCD menu option provides the ability to connect OpenManage Mobile to the Chassis Management Module. There are no physical buttons to press on the chassis like on rack and tower servers. Once a user selects QuickSync the Management Module will start advertising its BLE end point and OpenManage Mobile can connect to the chassis.

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).
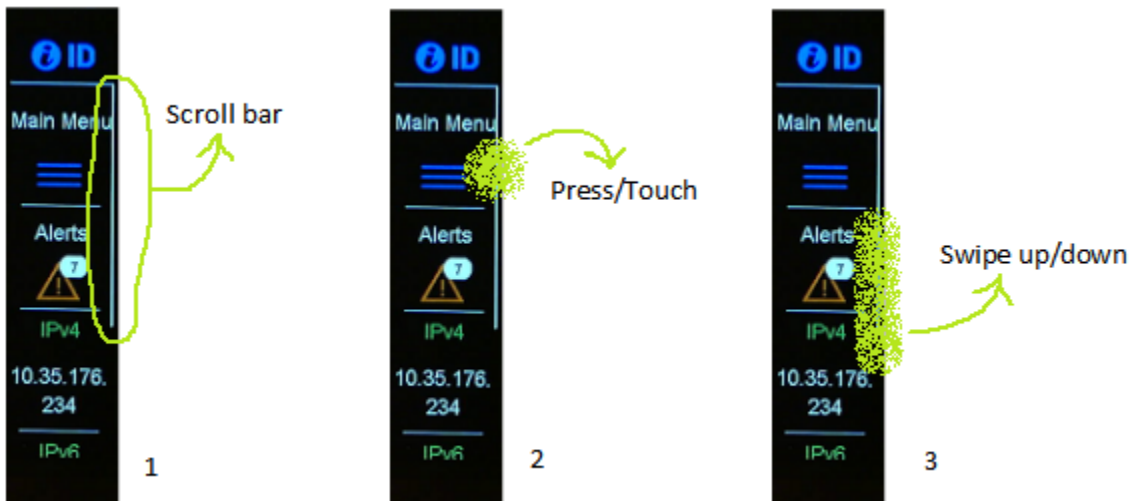
Figure 1   LCD navigation guide

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.

QuickSync 2 hardware

When a QuickSync 2 hardware is present there are two options;

- Enabled and the icon is available LCD menus, Figure 2 below shows an example of the LCD menu when QUickSync is enabled'

Figure 2   Quicksync Enabled

- Disabled by administrator and icon is greyed out. Figure 3 below shows an example of the LCD menu when QUickSync is disabled

Figure 3　　Quicksync disabled

QuickSync setup and connection

If the Management Module is configured with the default factory password for the admin login then a QR code is displayed on the LCD. (Only shown if the Management Module login credentials are configured with the default factory password, when password has been changed from default NO QR Code is displayed). When user presses or touches the QuickSync icon on the LCD panel it navigates to the QR code screen and Wi-Fi LED which is turned on to indicate that QuickSync 2 hardware is broadcasting its BLE end point. Figure 4 shows the QR code menu with Wi-Fi LED turned on.

Figure 4　　QuickSync broadcasting BLE endpoint

To initiate a connection from OpenManage Mobile (OMM) application scan the QR code (only for first time setup) from the OpenManage Mobile application through the QR code scanner present in app or manually enter the password. After the connection is successful, Chassis Management Module information can be accessed through the OMM application. Wi-Fi LED provides a visual indication by blinking when the

connection is initiated or when Chassis information is accessed from OMM application. OpenManage Mobile application details are outside the scope of this whitepaper. Figure 5 shows successful connection of QuickSync 2 hardware with OpenManage Mobile.

Figure 5   QuickSync successful connection

Pressing Home button on the connected menu will navigate the LCD to home menu and other features of LCD can be accessed such as Alerts, Settings or System Identity etc. Figure 6 shows an example of the Home menu when QuickSync is connected.

Figure 6   QuickSync Connected Home menu

QuickSync disconnect and timeout

To disconnect from the OpenManage Mobile press "Disconnect" button which will then navigate LCD menu to confirmation menu. Pressing "Yes" in the confirmation menu disconnects the QuickSync 2 hardware from OpenManage Mobile. Figure 7 shows the disconnect process in detail.
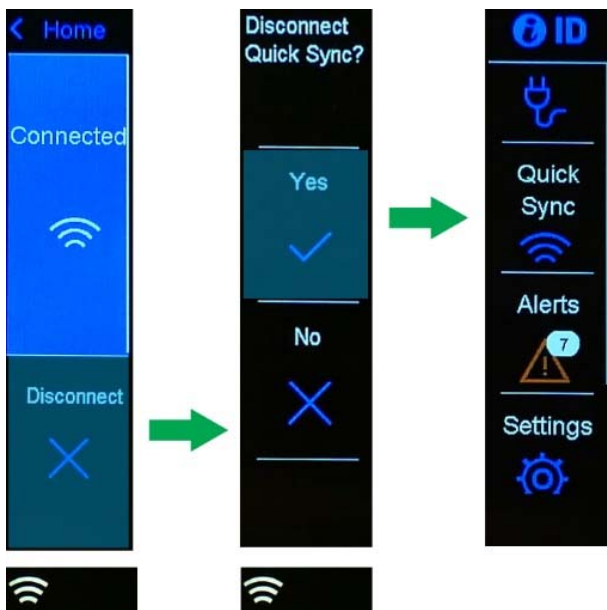
QuickSync disconnect and timeout

Figure 7   QuickSync disconnect

QuickSync 2 hardware turns OFF its BLW endpoint when it detects no activity for 120 seconds after

- it starts broadcasting BLE endpoint to initiate connection, OR
- successful connection with OpenManage Mobile application

LCD panel navigates to error menu from depending on current menu (e.g. "Connected Menu" or "QR Code Menu" or "Home Menu"). Figure 8 shows the QuiSync timeout error menu.

Figure 8   QuickSync timeout