

MX7000 Deployment of Management Module Network using 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:

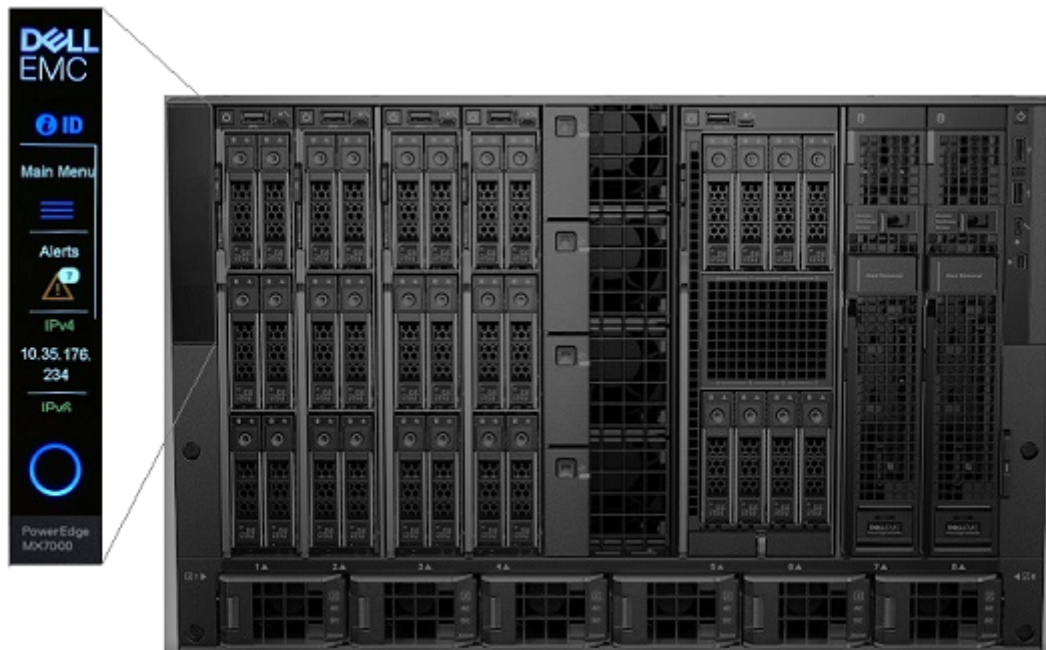
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Introduction

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 network settings and configuration feature of the touch screen LCD panel. Other features of the LCD are described in details in a separate technical white paper.

1 Network Settings in LCD

For initial deployment of the chassis or for remote access information, you can use the graphical LCD panel to view and configure the Management Module network settings.

- View the IPv4 network information (see section A)
- View the IPv6 network information (see section A)
- View the DNS name (see section A)
- View the chassis MAC address (see section A)
- View the network VLAN ID (see section A)
- Set the IPv4 network to Static (see section B)

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).

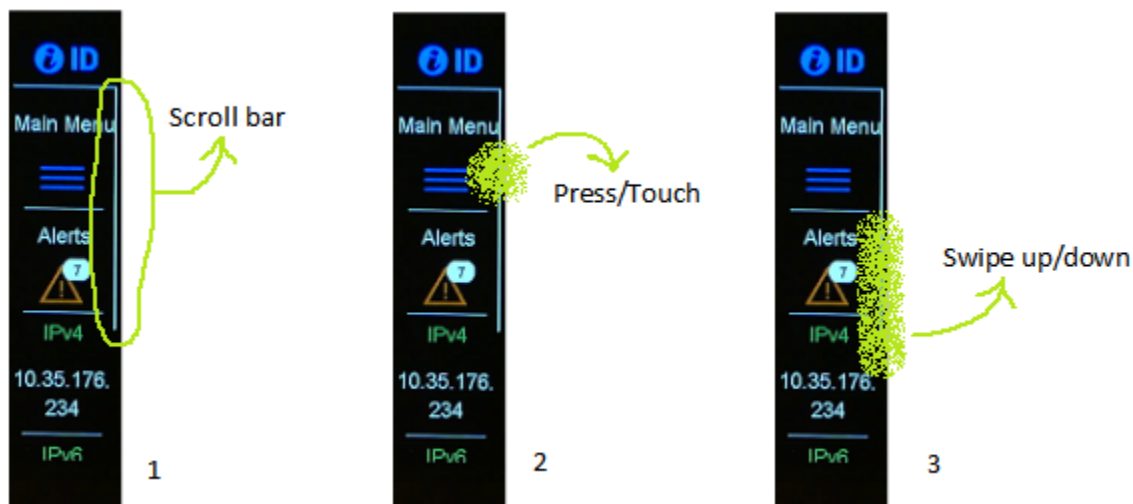


Figure 1 LCD navigation guide

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.

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

(A) Viewing network settings

The chassis Management Module network settings can be viewed from the LCD Home menu (Figure-2) or from the Main Menu (Figure-3).

A.1 Network settings from Home menu

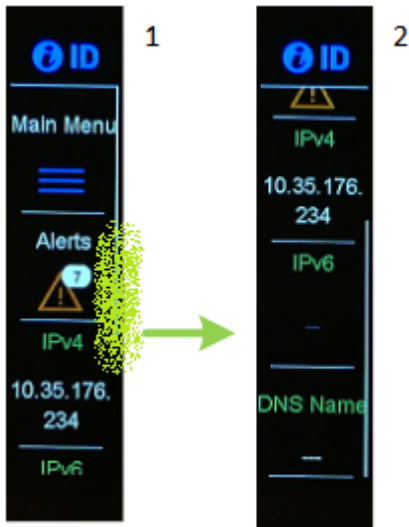


Figure 2 Viewing network settings from Main menu

The network information in the Home menu appears when the Home menu is configured to display the IP information. Swipe up the screen (Figure-2 item 1) to view more IP information (Figure-2 item 2).

NOTE: Only the IPv4 address, IPv6 address and MM DNS name is accessible from the Home menu. For other network information, refer to the Main menu instead.

A.2 Network settings from Main menu

(A) Viewing network settings

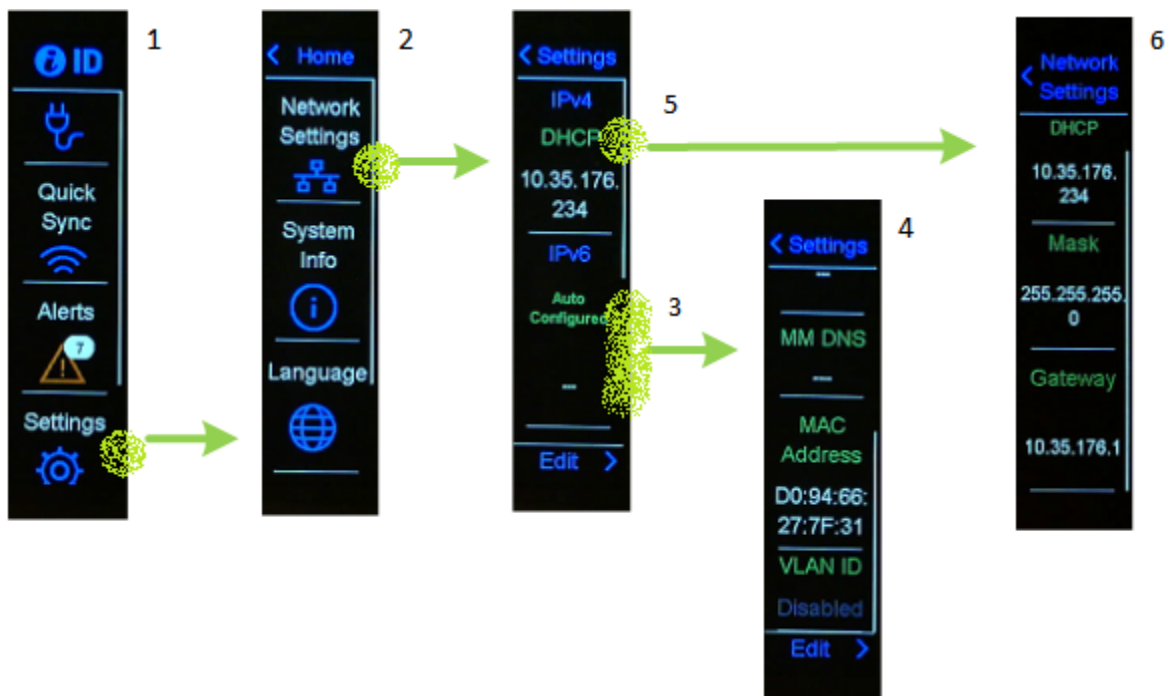


Figure 3 Viewing network settings from Home menu'

To see the network information from the Main menu, press the Settings button (Figure-3 item 1), then press the Network Settings button (Figure-3 item 2) to show the IP information (Figure-3 item 3) in the next menu. Swipe up the screen to view the rest (Figure-3 item 4). Here you see:

- IPv4 address and state (DHCP, Static or Disabled)
- IPv6 address and state (Auto-configured, Static or Disabled)
- MM DNS name
- MAC address
- VLAN ID

A.2.1 More IPv4 information

To get more information about IPv4, press the IPv4 button (Figure-3 item 5) to show the details info (Figure-3 item 6). Here you see:

- IPv4 address and state (DHCP, Static or Disabled)
- Subnet mask
- Gateway address

A.2.2 More IPv6 information

To get more information about IPv6, press the IPv6 button (Figure-3 item 5) to show the details info (Figure-3 item 6). Here you see:

- IPv6 address and state (Auto-Configured, Static or Disabled)
- Gateway address

B Configuring IPv4 network

B.1 Start IPv4 network changes

The default setting of IPv4 network is DHCP. You may configure the setting between Static IP, DHCP or Disable the IPv4 interface.

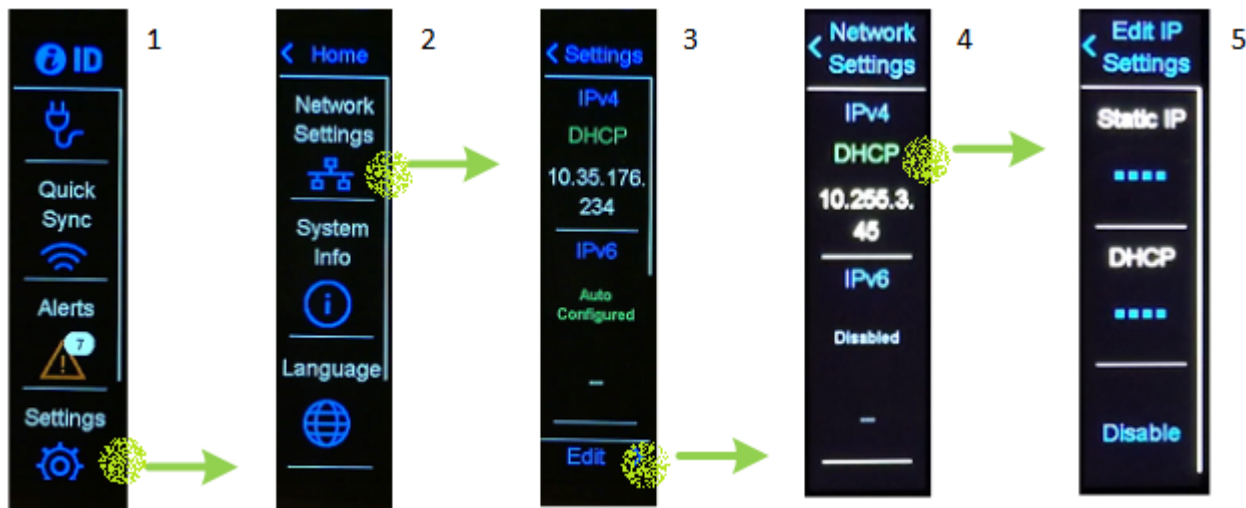


Figure 4 Configuring IPv4 network settings

To configure IPv4 settings, start at the Main menu (Figure-4 item 1) and press the Settings button, then press the Network Settings (Figure-4 item 2), then press the Edit button (Figure-4 item 3), then press the IPv4 button

(Figure-4 item 4) to show the Edit selection (Figure-4 item 5) in the next menu. Each selection in the Edit menu is discussed in the next sections.

B.2 (B) Configure IPv4 network to Static

To change the IPv4 configuration to Static, start from the Main menu described in the “Start IPv4 network changes” section.

(A) Viewing network settings

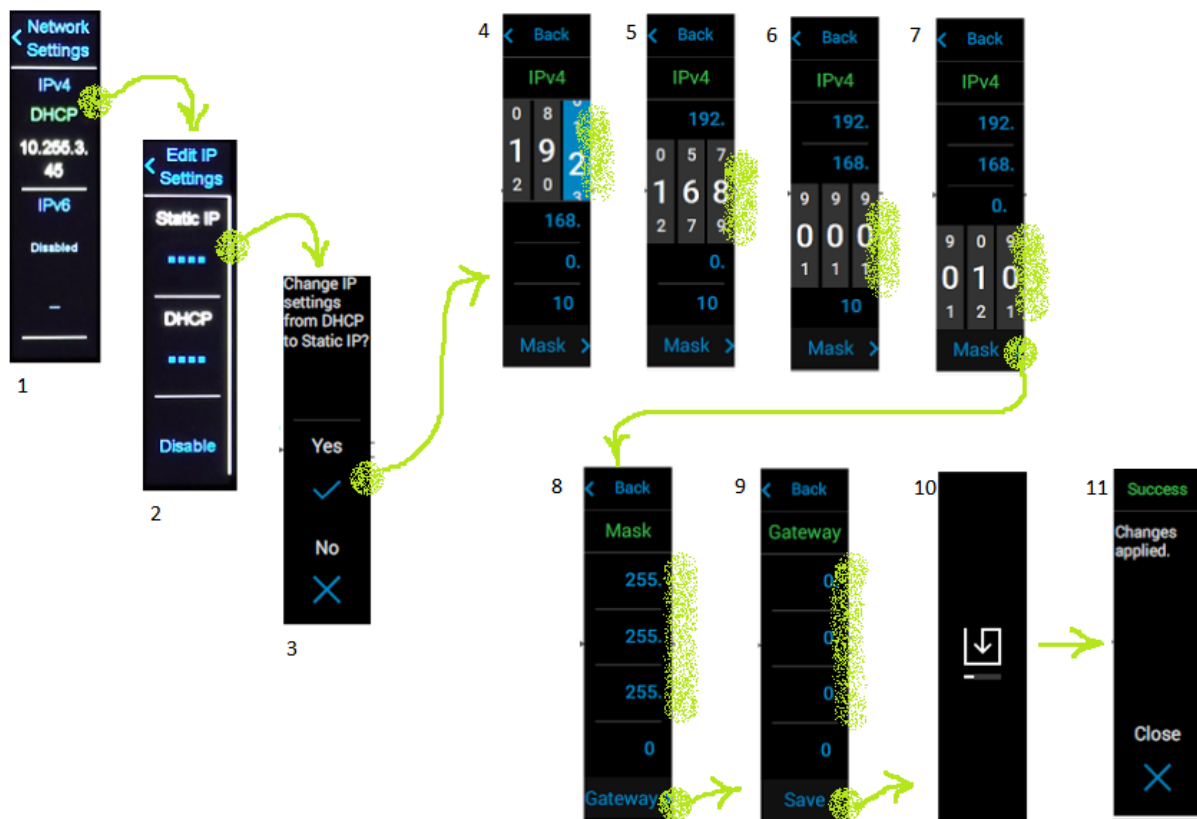


Figure 5 Configure IPv4 setting to Static

Press the IPv4 button (Figure-5 item 1), then press the Static IP button (Figure-5 item 2) and you will be asked to confirm (Figure-5 item 3) that you intend to change the IPv4 setting to Static. Pressing “Yes” in the confirmation page takes you to the Static IP configuration. The first part is the static IPv4 address setting (Figure-5 item 4).

For each octet of the IPv4 address, you are presented with a 3-digit numeric dial. Due to the already limited screen space, the dial for each digit is fairly small so for an effective selection try to slide the dial with a lighter touch.

After the first octet, touch the next octet for setting its value (Figure-5 item 5). Do the same for the rest (Figure-5 items 6-7). When done, press the “Mask” button (Figure-5 item 7) at the bottom of the screen.

The second part of the configuration is the subnet Mask menu (Figure-5 item 8). The steps here is the same as the IPv4 address setting. When done, press the “Gateway” button at the bottom of the screen.

The last part of the configuration is the Gateway menu (Figure-5 item 9). The steps here is the same as the IPv4 address setting. When done, press the “Save” button at the bottom of the screen. You may see the Save in-progress icon (Figure-5 item 10) for a brief time. When the save is complete, you will see the “Success” menu (Figure-5 item 11). Press “Close” button to conclude the configuration.

NOTE: Although the configuration has concluded, the information in the LCD may take a few seconds to reflect the changes.

B.3 (C) Configure IPv4 network to DHCP

(A) Viewing network settings

To change the IPv4 configuration to DHCP, start from the Main menu described in the “Start IPv4 network changes” section.’

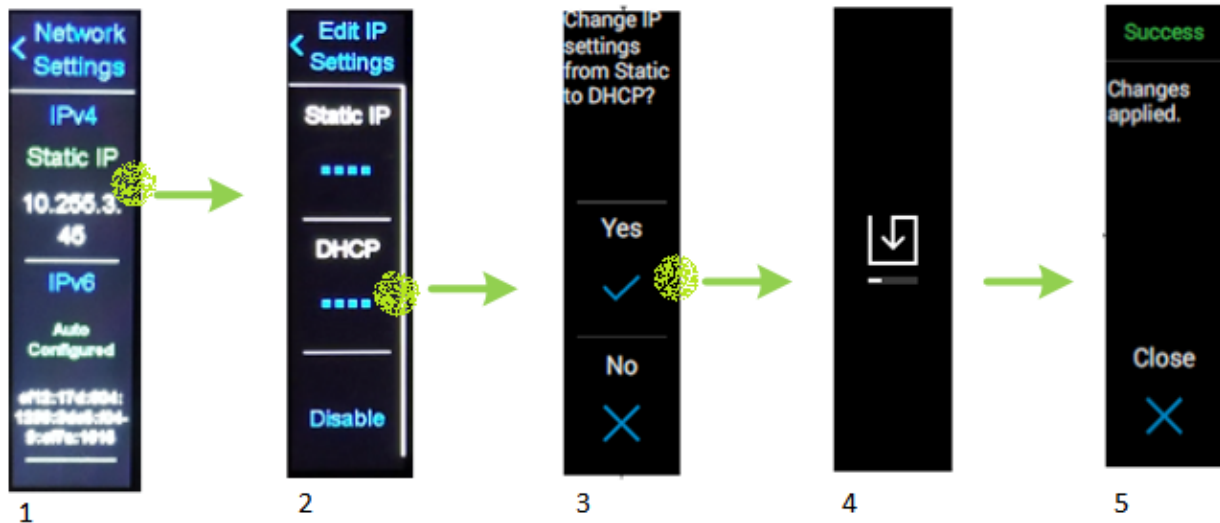


Figure 6 Configure IPv4 setting to DHCP

Press the IPv4 button (Figure-6 item 1), then press the DHCP button (Figure-6 item 2) and you will be asked to confirm (Figure-6 item 3) that you intend to change the IPv4 setting to DHCP. Pressing “Yes” in the confirmation page initiates the DHCP configuration process.

For a short period of time, you may see the Save in-progress icon (Figure-6 item 4). When the configuration process is complete, you will see the “Success” menu (Figure-6 item 5). Press “Close” button to conclude the configuration.

NOTE: Although the configuration has concluded, the information in the LCD may take a few seconds to reflect the changes.

B.4 (D) Disabling IPv4 network

To disable the IPv4 network, start from the Main menu described in the “Start IPv4 network changes” section.

(A) Viewing network settings

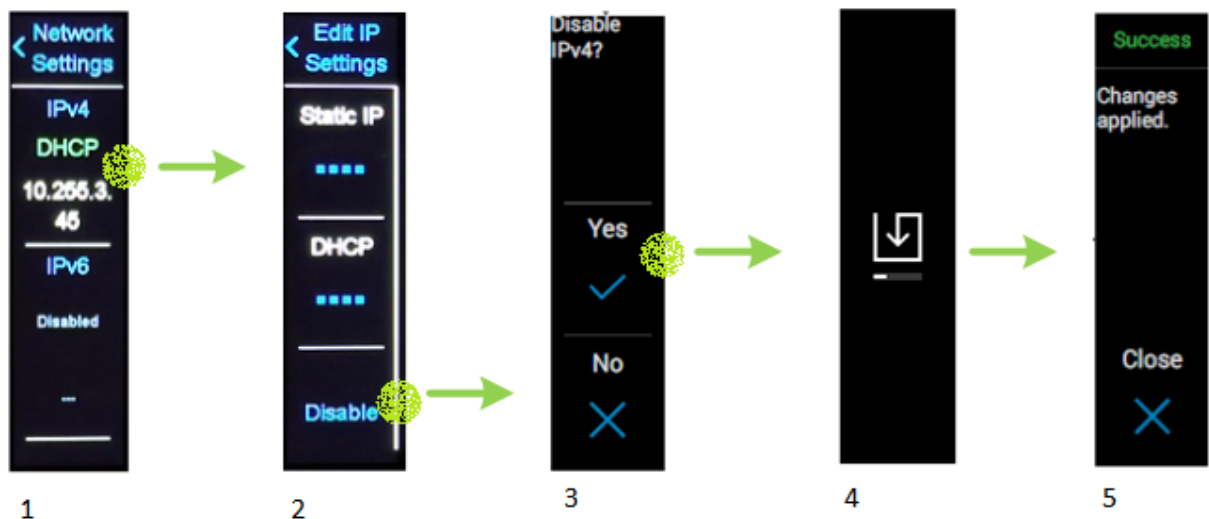


Figure 7 Disabling IPv4

Figure 7 - Disabling IPv4

Press the IPv4 button (Figure-7 item 1), then press the “Disable” button (Figure-7 item 2) and you will be asked to confirm (Figure-7 item 3) that you intend to disable IPv4 network. Pressing “Yes” in the confirmation page initiates the Disable configuration process.

For a short period of time, you may see the Save in-progress icon (Figure-7 item 4). When the configuration process is complete, you will see the “Success” menu (Figure-7 item 5). Press “Close” button to conclude the configuration.

NOTE: Although the configuration has concluded, the information in the LCD may take a few seconds to reflect the changes.

C Configuring IPv6 network

C.1 Start IPv6 network changes

The default setting of IPv6 network is “Disabled”. You may configure the setting between Static IP, Auto-Configuration or Disable the IPv6 interface.

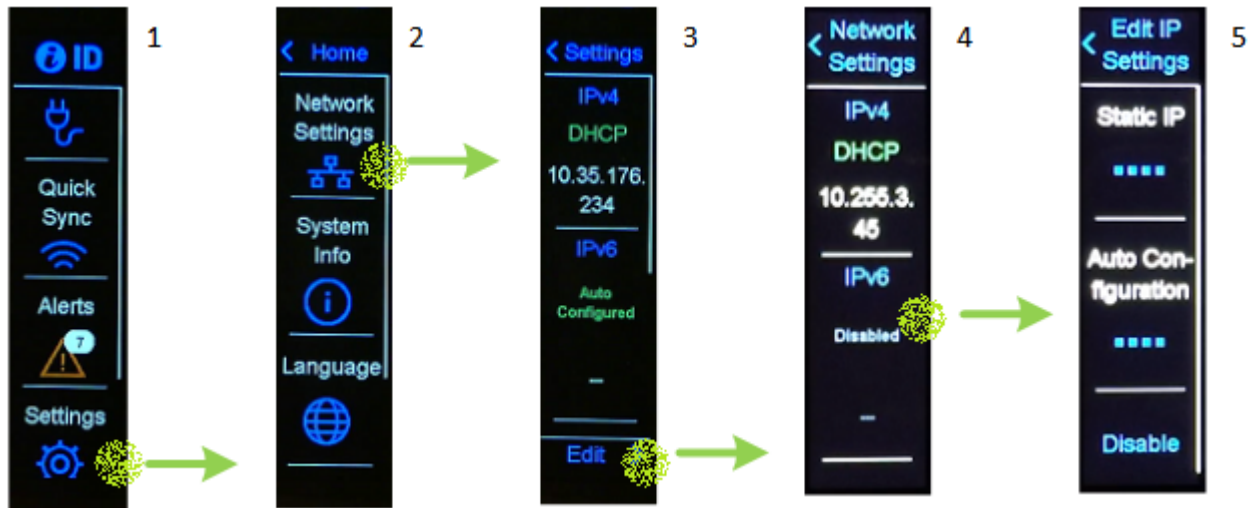


Figure 8 Configuring IPv6 network settings

To configure IPv6 settings, start at the Main menu (Figure-8 item 1) and press the Settings button, then press the Network Settings (Figure-8 item 2), then press the Edit button (Figure-8 item 3), then press the IPv6 button (Figure-8 item 4) to show the Edit selection (Figure-8 item 5) in the next menu. Each selection in the Edit menu is discussed in the next sections.

C.2 (E) Configure IPv6 network to Static

Configuration of IPv6 static addresses requires a longer user input than the IPv4 octet address. Due to the limited LCD screen size, the numeric dial for digit selection of IPv6 address does not fit the LCD screen.

(A) Viewing network settings

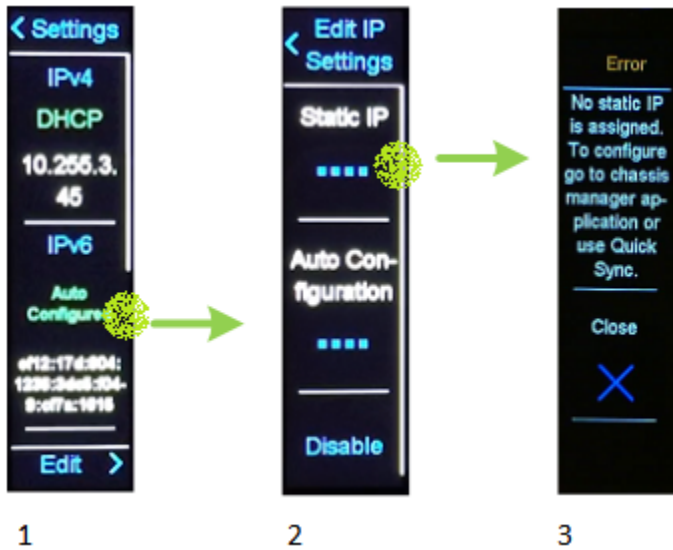


Figure 9 Configure IPv6 setting to Static

Following the steps to attempt to configure static IPv6 (Figure-9 item 1), selecting Static IP (Figure-9 item 2) the LCD will show you an Error (Figure-9 item 3). This is expected.

To configure IPv6 to Static setting, refer to OpenManage Enterprise Modular User's Guide or go to the GUI: Home > Settings > Network > IPv6 Settings. You can also use OpenManage Mobile app.

C.3 (F) Configure IPv6 network to Auto-Configuration

To change the IPv6 configuration to Auto-Configuration, start from the Main menu described in the “Start IPv6 network changes” section.

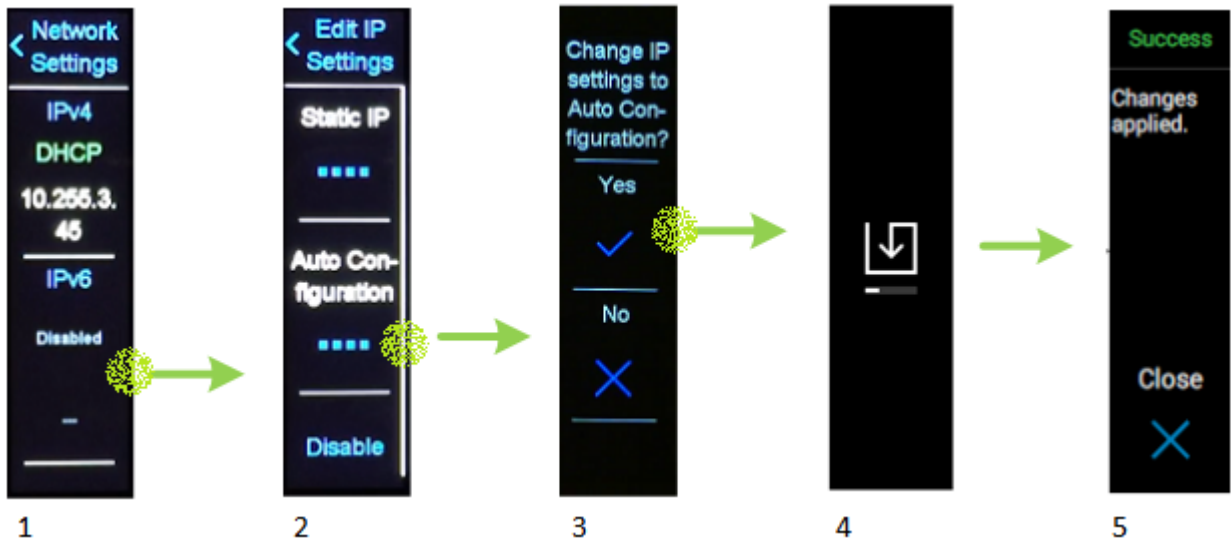


Figure 10 Configure IPv6 setting to Auto-Configuration

(A) Viewing network settings

Press the IPv6 button (Figure-10 item 1), then press the Auto Configuration button (Figure-10 item 2) and you will be asked to confirm (Figure-10 item 3) that you intend to change the IPv6 setting to Auto Configuration. Pressing “Yes” in the confirmation page initiates the configuration change process.

For a short period of time, you may see the Save in-progress icon (Figure-10 item 4). When the configuration process is complete, you will see the “Success” menu (Figure-10 item 5). Press “Close” button to conclude the configuration.

NOTE: Although the configuration has concluded, the information in the LCD may take a few seconds to reflect the changes.

C.4 (G) Disabling IPv6 network

To disable the IPv6 network, start from the Main menu described in the “Start IPv6 network changes” section.

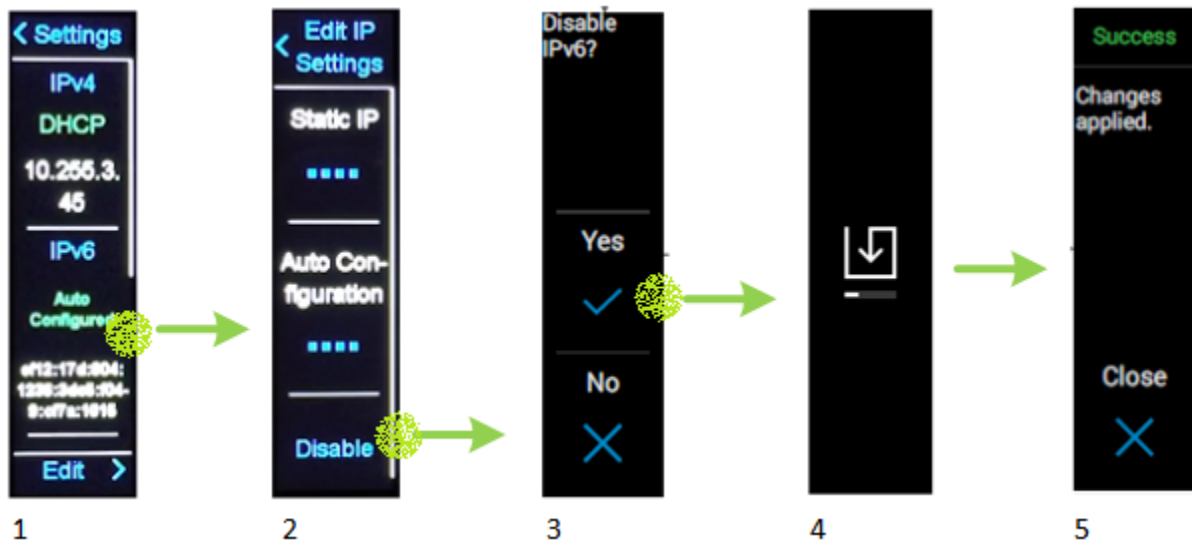


Figure 11 Disabling IPv6

Press the IPv6 button (Figure-11 item 1), then press the “Disable” button (Figure-11 item 2) and you will be asked to confirm (Figure-11 item 3) that you intend to disable IPv6 network. Pressing “Yes” in the confirmation page initiates the Disable configuration process.

For a short period of time, you may see the Save in-progress icon (Figure-11 item 4). When the configuration process is complete, you will see the “Success” menu (Figure-11 item 5). Press “Close” button to conclude the configuration.

NOTE: Although the configuration has concluded, the information in the LCD may take a few seconds to reflect the changes.

D Troubleshooting

D.1 I don't see the "Edit" button in the Network Setting menu.

If you don't see the "Edit" button in the Network Settings menu, the LCD access setting may be set to "View only". For further information, check the OpenManage Enterprise Modular User's Guide or go to the GUI: Home > Settings > Local Access Configuration > LCD.

D.2 I don't see any network information at all.

D.3 If you don't see any network information at all, the LCD access setting may be set to "Disabled". For further information, check the OpenManage Enterprise Modular User's Guide or go to the GUI: Home > Settings > Local Access Configuration > LCD.

D.4 I see an "Error" menu at the end of configuration.

If you see an "Error" menu at the end of configuration, instead of "Success", check the Hardware Log in OME-M for more information about the error.

E 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.