



FX2 Guide to using Front Panel controls, indicators, and CMC for system identification, configuration and troubleshooting

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1 FX2 Front Panel Overview

The Dell PowerEdge FX2 or FX2s is a new 2U rack-based hybrid computing platform that provides a greater dimension of functional flexibility, along with a higher density of processing power. The FX2 Front panel design enables optimal use of the space available on either side of the platform.

The Control Panel has the following components:

- Three buttons with LED indicators for power, system identification, and KVM selection.
- Four diagnostic LED indicators for temperature, I/O Module, electrical, and health.

The IO Panel has a VGA connector and a USB connector. You can map the connectors to a server, using the KVM button, RACADM, or GUI.

Figure 1 Dell PowerEdge FX2 Front Panel Features and Indicators

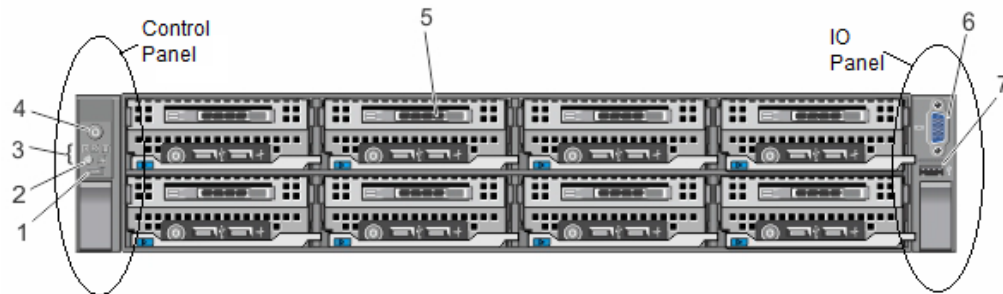


Table 1 Dell PowerEdge FX2 or FX2s Front Panel Features and Indicators

1	KVM select button	Allows you to switch the KVM connectivity between sleds in the chassis. The KVM button LED glows steadily when video (6) is connected and it blinks when mapped to a server.
2	System identification button and Chassis LED	The system identification buttons on the front and back panels enable you to locate a particular server and associated PCIe cards. The system identification buttons and chassis LEDs work as follows: <ul style="list-style-type: none">• Press the system identification button to turn on or turn off the front and rear Chassis LEDs, the selected server LED and associated PCIe card LEDs.• The LEDs will continue to blink until you press one of the identification buttons again or change the state from a management interface.• Each time you cycle the system identification on and off the system status indicator LED moves to the next system.
3	Diagnostic indicators	The diagnostic LED indicators turn on to indicate the error status (temperature, I/O, electrical, and health).
4	Enclosure power-on indicator, power button	The enclosure power-on indicator turns on when the enclosure turns on. The power button controls the power supply output to the system. <ul style="list-style-type: none">• To gracefully shutdown all servers, press and hold the power

		button for five seconds.. <ul style="list-style-type: none"> To force shutdown all servers, press and hold the power button for ten seconds.
5	Sleds	PowerEdge FX2 enclosure supports up to eight quarter-width sleds or four half-width sleds.
6	Video connector	Enables you to connect a monitor to the system.
7	USB connector	Enables you to connect a keyboard or mouse to the system.

Figure 2 Dell PowerEdge FX2s Back Panel Features and Indicators (FC430 and FC630)



Table 2 Dell PowerEdge FX2 or FX2s Back Panel Features

1	System identification button and Chassis Controller LED	The system identification buttons on the front and back panels enables you to locate a particular server and associated PCIe cards. If you press one of these system identification buttons, the system status indicator LEDs on the front and back panels blink continuously until you press one of the buttons again. Press the system identification button to turn on or turn off the system ID. Each time you press the button twice (on & off), the system status indicator LED moves to the next server.
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Figure 3 Figure 5 Front Panel Status on GUI

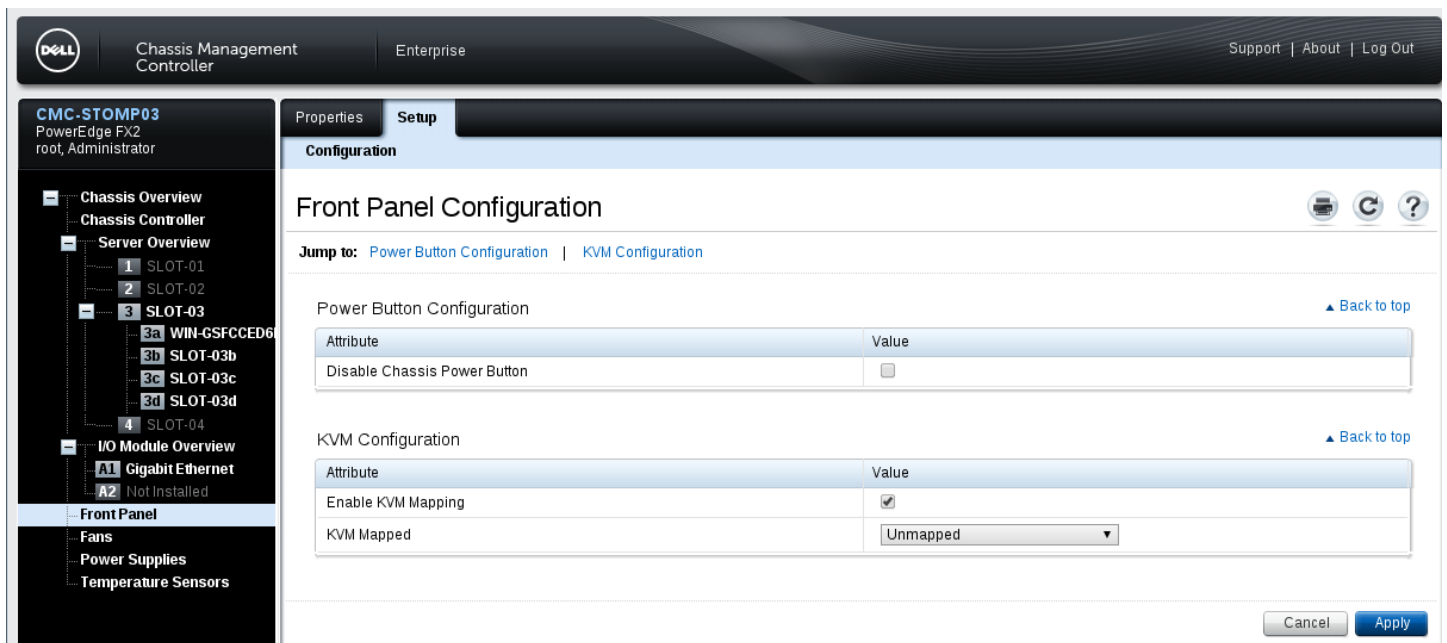
The screenshot shows the Dell Chassis Management Controller (CMC) GUI. The top navigation bar includes the Dell logo, 'Chassis Management Controller', 'Enterprise', and links for 'Support', 'About', and 'Log Out'. The left sidebar shows a tree view with 'CMC-STOMP03' selected, and 'Front Panel' highlighted under 'Server Overview'. The main content area is titled 'Front Panel' and has tabs for 'Properties' and 'Setup'. Below the title, there are links to 'Power Button Properties' and 'KVM Properties'. The page is divided into three sections:

- Power Button Properties:** A table with two columns: 'Attribute' and 'Value'. It shows 'Chassis Power Button' with a value of 'Enabled'.
- KVM Properties:** A table with two columns: 'Attribute' and 'Value'. It shows 'KVM Health' with a green checkmark icon and 'KVM Mapped' with a value of 'Unmapped'. A 'Back to top' link is present.
- Front Panel Indicators:** A table with two columns: 'Attribute' and 'Value'. It shows 'Temperature', 'I/O', 'Electrical', and 'Health' with corresponding status icons (a warning triangle, a power button, a lightning bolt, and a plus sign). A 'Back to top' link is present.

The Front Panel Status Page provides the following information:

- Enabled/disabled state of the chassis power button
- KVM I/O Panel Health - (if this is not healthy check the chassis overview or chassis log for a detailed explanation)
- KVM server mapping
- Chassis Health Indicators status – Indicate the values

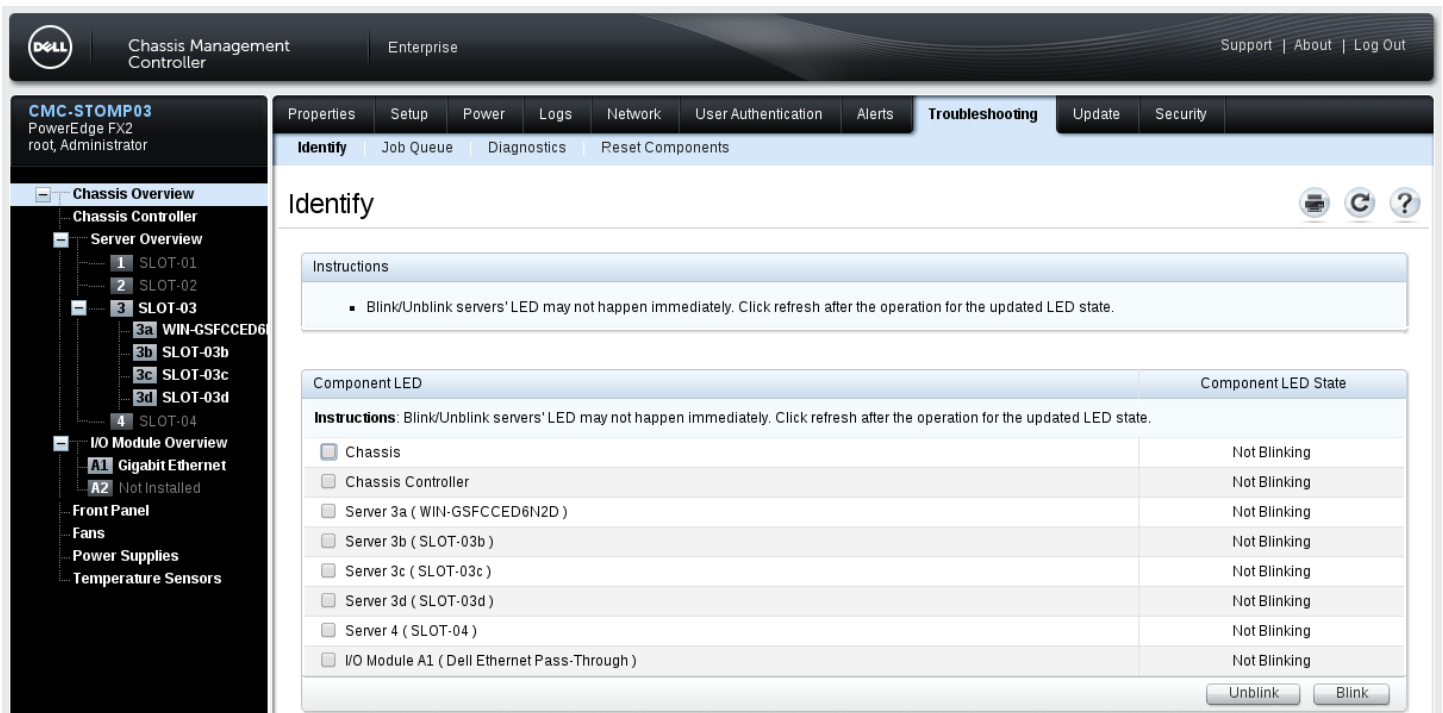
Figure 4 GUI Front Panel Configuration



The Front Panel Configuration Page can configure:

- enabled/disabled state of the chassis power button
- enabled/disabled status of the I/O panel KVM
- KVM server mapping

Figure 5 GUI Identify



The Identify page is both a status and configuration page for the component LEDs in the system. To change the blinking state of one or more components, select the check boxes corresponding to the components and press **Unblink** or **Blink**. The ID buttons at the front and rear of the FX2 will blink/unblink chassis, chassis controller, one server, and the PCIe. The component identification LEDs can be set to blinking with the ID buttons, then turned off by the GUI and vice versa. For example, server 3c (3rd server in the configuration above) could be set to blinking through the GUI then turned off by pressing one of the ID buttons six times (to blink then unblink 1st, 2nd, and 3rd server).

2 Workflows

2.1 Chassis Power Button

Initially the Dell PowerEdge FX2 or FX2s Chassis is turned off. Press the chassis power button on the Control Panel to turn on the chassis. This action turns on the chassis and other subsystems (iDRAC on the servers, IOMs, main board, and PCIe Adapters), but the servers are not turned on. The indicator in the power button glows when the chassis is turned on.

Press and hold the chassis power button on the Control Panel for five seconds to turn off the chassis and associated components (servers, IOMs, main board, PCIe Adapters, and power supplies). However, the CMC remains turned on. In this state, one of the power supply unit remains functional, and the fans are on to provide cooling to the CMC. The power is supplied to the fans that are running at low speed.

Press and hold the chassis power button on the Control Panel for ten seconds to force a non-graceful turn off of the entire chassis (chassis, servers, IOMs, main board, PCIe Adapters, and power supplies). Using this method, you cannot perform a proper shutdown of the server operating system before turning them off.

To disable the chassis power button actions from the GUI, go to **Front Panel > Setup**, select the **Disable Chassis Power Button** check box, and then click **Apply**.

After power loss and recovery, the chassis returns to the state before the power loss. If the servers are turned on, power is supplied to the servers when it becomes available.

2.2 KVM Selection

The FX2 chassis provides KVM functionality through a VGA connector and single USB port on the IO Panel. When you connect an external monitor to the VGA connector, the KVM button LED on the Control Panel glows. To switch through all servers (including multi-node sled like FM120x4) one after the other, press the KVM select button on the Control Panel. When a server is selected, the KVM button on the Control Panel and the System status indicator LED on the server blink continuously (two blinks per second).

To disable the KVM function from the GUI, go to the **Front Panel > Setup** page, select the **Enable KVM Mapping** check box, and click **Apply**.

The fact that the KVM button glows only when the VGA is connected is useful when it is connected to an external KVM switch. Use the KVM button LED as an indicator of which FX2 chassis is selected by the external KVM.

Based on the following conditions, the KVM button LED glows or blinks:

- Blinks while the KVM is enabled, a monitor is connected, and a server is selected.
- Glows continuously when the KVM is enabled and monitor is present, but no server is selected (unmapped.)



Note: The KVM Button LED blink pattern (two per second) is faster than the system identification buttons blink pattern (one per second).

2.3 Identify Server

The Dell PowerEdge FX2 or FX2s chassis has system identification buttons on the Front Control Panel and Back Control Panel (on the CMC). Press either of the buttons to turn identification on or off for the chassis, chassis controller, one server (which increments), and the PCIe modules associated that server. Each cycle (two presses) of identification increments which present server is identified (empty slots are skipped). The first time either ID button is pressed the first present server will identify along with the chassis, the chassis controller and all PCIe modules associated with that server. The second time either ID button is pressed identification on all these components will be turned off and the ID LEDs will stop blinking. The third time either ID button is presses the second present server will identify along with the chassis, the chassis controller and all PCIe modules associated with that server.

To view the system identification LED status and enable or disable system identification from the GUI, go to **Chassis Controller > Troubleshooting > Identify**. This page displays the system identification LED blinking state based on the chassis and associated chassis components. To change the blinking state, select the corresponding components check boxes, and click **Blink** or **Unblink**. The component identifications LEDs can be set to blinking with the ID buttons then turned off by the GUI and vice versa.

Note: When a FM120x4 server is identified, the LED on the associated hard drives also blinks.

2.4 Chassis Health Indicators

The FX2 has four health indicators:



Chassis Health:

- LED glows, solid blue: Indicates when no faults exist.
- Blinks amber when a fault exists that is not associated with the other three fault indicators, thermal, electrical or IO.
-



Thermal Fault:

LED blinks amber: Indicates when a thermal fault exists, which includes fan failures and excessive ambient conditions.

**Electrical Fault:**

LED blinks amber: Indicates when an electrical fault exists, which includes PSU faults and PSB VR faults.

**IO Fault:**

LED blinks amber: Indicates when an I/O module fault exists, which includes IOM faults and PCIe Card Module faults.

A Additional resources

- [*FX2 Chassis Owner's Manual*](#)
- [*FX2 CMC User's Guide*](#)
- [*Getting Started Guide and Rack Installation Guide*](#) available on the White Glove FTP site.
- *Dell Server Administrator User's Guide* on the [OMSA Manuals](#) page
- [*FX2 CMC RACADM Guide*](#)
- [*iDRAC with Lifecycle Controller Quick Start Guide*](#)
- [*iDRAC7 User Guide*](#)

