

**Installing Operating System on Dell 12th Generation
PowerEdge Server
Quick Start Reference Guide**



Notes, Cautions, and Warnings



NOTE: A NOTE indicates important information that helps you make better use of your computer.



CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Installing Operating System on 12th Generation Dell PowerEdge Server — Quick Start Reference Guide

This Quick Start Reference guide provides instructions to help you install an operating system on your Dell 12th Generation PowerEdge server. For detailed information, see the *OS Deployment Guide*.

Leveraging the embedded management features of the PowerEdge server is a recommended method for deploying, updating, monitoring, and maintaining your server. The Integrated Dell Remote Access Controller 7 (iDRAC7) with Lifecycle Controller is the key enabler of the embedded management capabilities.

1. Connect power and network cables on the back of the system. See the Getting Started With Your System guide for locations of ports. Connect at least one RJ45 Ethernet cable to the LAN on Motherboard NIC (LOM) and optionally one for the iDRAC7.
2. From the system console, press <F10> within 10 seconds of pressing the power switch of the server.

The **Lifecycle Controller Home Page** is displayed.

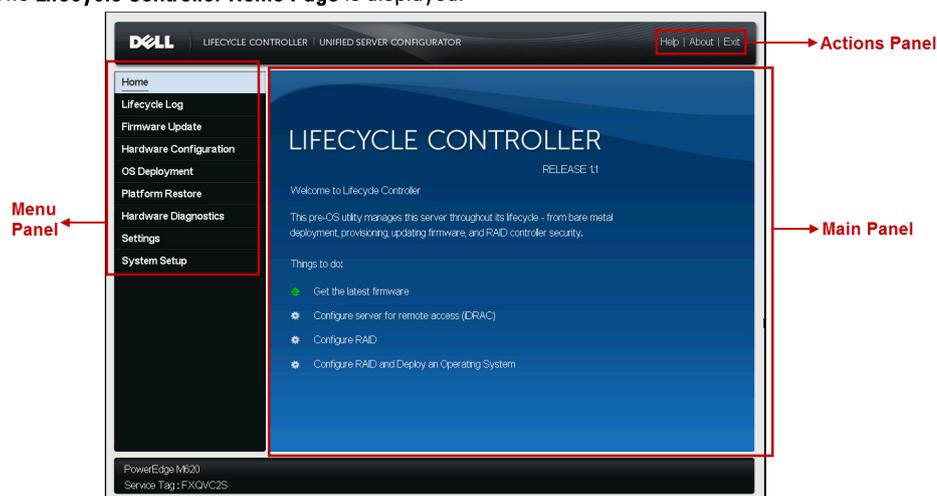


Figure 1. Lifecycle Controller Home Page

You can navigate through the Lifecycle Controller screens using the mouse or keyboard. For keyboard navigation:

- <Tab> key advances to different screen sections (panels)
 - Arrow keys advance through options within a screen section.
 - Space bar selects items or entries.
 - <Enter> key executes an action, such as: Next, Apply, Cancel, and so on.
3. Perform the following:
 - a. Configure the network access.
 - b. Set or verify the system date and time.
 - c. Initialize the vFlash SD card.
 - d. Configure the iDRAC card network setting (optional).
 - e. Update BIOS/firmware and drivers via FTP (if internet connected).
 - f. Update BIOS, firmware and drivers via USB device (if internet is not connected).

- g. Install your operating system.

Configuring Network Access

To configure the network:

1. On the **Lifecycle Controller Home** page, in the menu panel, click **Settings**.
2. In the main panel, click **Network Settings**.
3. From the **NIC Card** drop-down menu, select the Network Interface Card (NIC) that is connected to the network.
4. Select **IP Address Source**.
5. Configure the remaining network settings, if any, and then click **Finish**.
6. Repeat above steps if you need to configure multiple NICs.

Setting or Verifying System Date and Time

To set or verify the system date and time:

1. On the **Lifecycle Controller Home** page, in the menu panel, click **Hardware Configuration**.
2. In the main panel, click **Configuration Wizards**.
3. Click **System Time and Date Configuration**.
4. Set or verify that the date and time are correct, and then click **Finish**.

Initializing vFlash SD Card

To initialize the vFlash SD card:

1. Make sure the vFlash SD card is enabled.
2. On the **Configuration Wizards** page, click **vFlash SD Card Configuration**.
3. Select **Initialize vFlash** and click **Finish**.

Configuring iDRAC Card Network Setting (optional)

To configure the iDRAC network settings:

1. On the **Lifecycle Controller Home** page, in the menu panel, click **Hardware Configuration**.
2. In the main panel, click **Configuration Wizards**.
3. Click **iDRAC Settings** and then click **Network**.
4. Select **Enable NIC**.
5. Set **NIC selection** to **Dedicated (iDRAC7 Enterprise only)** (if using the dedicated iDRAC connection) or select an active NIC in shared mode.
6. Change the other options only if it is necessary.
7. Click **Back** and then click **Finish**.

Updating BIOS, Firmware, and Drivers Using FTP (Internet Connected)

To update the BIOS, firmware, and drivers using FTP (with internet connection):

1. On the **Lifecycle Controller Home** page, in the menu panel, click **Firmware Update**.
2. In the main panel, click **Launch Firmware Update**.
3. Select **FTP Server** and then click **Next**.



NOTE: The Dell Systems Consultant can provide the FTP site information to retrieve the latest Dell server updates.

4. Enter the FTP address and credentials, as appropriate.
5. Enter the proxy settings if applicable.
6. Enter the exact full name of the file (example, **/repository/catalog.xml.gz**).
7. Click **Next**.
8. Under **Available System Updates**, select the required updates and click **Apply**.
After the selected updates are applied, the system reboots.

Updating BIOS, Firmware, and Drivers Using FTP (Internet Not Connected)

To update the BIOS, firmware, and drivers using FTP (without internet connection):

1. From another system that has internet access, work with your Dell Systems Consultant to download the drivers from the temporary Dell FTP server.
2. Download the catalog and driver pack to a location on the USB device.
3. After the download is completed, connect the USB device to your Dell 12th generation server.



Tip: You can provide a shorter file name, without blanks, to simplify the next steps.

4. On the **Lifecycle Controller Home** page, in the menu panel, click **Firmware Update**.
5. In the main panel, click **Launch Firmware Update**.
6. Select **Local Drive (CD or DVD or USB)** and click **Next**.
7. From the drop-down menu, select the local USB drive.
8. Enter the exact full name of the file (example: **repository/catalog.xml.gz**).
9. Click **Next**.
10. Under **Available System Updates**, select the required updates and click **Apply**.
After the selected updates are applied, the system reboots.

Installing the Operating System

To install the operating system:

1. Locate the physical media or a network share or USB device containing an installable ISO image (the procedure in this section uses USB-DVD drive with volume licensing)
2. On the **Lifecycle Controller Home** page, in the menu panel, click **OS Deployment**.
3. In the main panel, click **Deploy OS**.
4. Select **Configure RAID First** and click **Next**.
5. Select the PERC Controller and click **Next**.
6. Select the RAID level and click **Next**.



NOTE: All the supported RAID types are shown, but you can only select the valid RAID types based on the number of drives present.

7. Select the physical disk(s) using the Space Bar or select the **Select All** option, and click **Next**.

8. Set **Volume size** and **HOT Spare** as needed and click **Next**.
9. Review the settings and click **Finish**.
10. Click **Yes** if prompted to overwrite RAID configuration, and then click **OK**.

 **NOTE:** There may be a short delay to the next step while the Lifecycle Controller builds a list of operating system choices. If a critical failure pop-up message appears, you must update the driver packs from the FTP site (contact the Dell Systems Consultant) before proceeding to the next step.

11. Select the **Go Directly to OS Deployment** option and click **Next**.
12. Select the required operating system and click **Next**.
13. Select **BIOS** as the Boot Mode and click **Next**.
14. Verify that the operating system media is inserted in the USB-DVD drive and click **Next**.
15. Click **Finish** to reboot the system. The system boots to the operating system installation media.

 **Important:** Depending on the operating system type selected, after the system reboots, you may be prompted to press any key to boot from CD/DVD. Press a key within five seconds of the message appearing to begin installing the operating system from the media.

- Depending on your media type, that is, whether it is an unattended install, you may have to respond to few typical OS install prompts and enter the parameters, as needed.
- The system boot to the operating system login step when completed.

Additional Tools and References

The following additional tools are available for use with Dell PowerEdge 12th generation servers at support.dell.com:

- Dell Systems Build and Update Utility
- Dell OpenManage Server Administrator
- Dell Optimized Drivers

The following user's guides are available at dell.com/support/manuals:

- iDRAC7 User's Guide
- Lifecycle Controller User's Guide