

Dell PowerEdge R630 Server Configuration

Cloud Execution Environment

INSTALLATION INSTRUCTIONS

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1 Introduction

This document describes configuration procedures for the Dell PowerEdge R630 server.

1.1 Prerequisites

This section describes the prerequisites that must be fulfilled before configuring the Dell PowerEdge R630 server.

1.1.1 Hardware and Software Required

This document only supports hardware configuration installed according to Dell PowerEdge R630 HW Installation.

Note: The firmware version of iDRAC must be 2.21.21.21.

1.1.2 Conditions

Before starting this procedure, ensure that the following conditions are met:

- The Dell PowerEdge R630 server has not been configured before or has been restored to factory default.
- Hyperthreading is enabled for the Dell PowerEdge R630 server.

1.1.3 Tools

The following tools are required to connect to iDRAC:

- ☐ Screen with VGA port and cable
- ☐ USB keyboard
- ☐ USB mouse (optional)

Use the sockets shown in Figure 1:

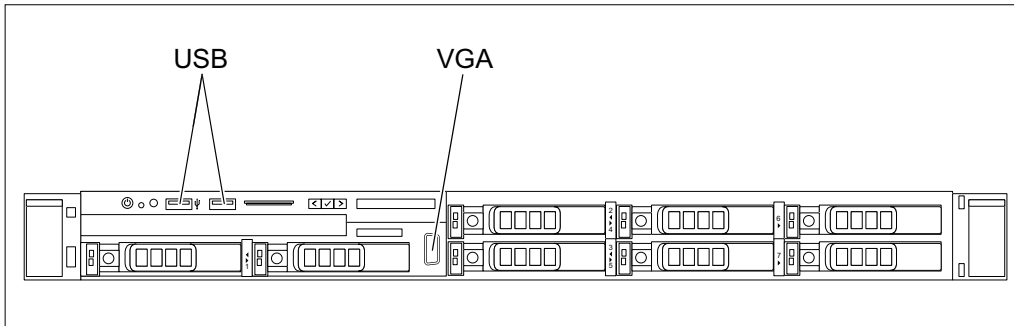


Figure 1 Front Sockets for USB and VGA Connection



2 Configuration of Dell PowerEdge R630 Server

2.1 Configure Dell iDRAC

The Dell configuration covered in this section is a manual procedure.

This section describes how to set iDRAC IP addresses, username, and password.

Note: The IP addresses used in this section are examples. For the actual values, refer to the local version of IP and VLAN Plan updated with customer and site-specific values.

All servers must be configured one by one as follows:

1. Connect the screen, keyboard, and optionally, mouse to the server, as shown in Figure 1.
2. Reboot the connected server by pressing **Ctrl+Alt+Del**.
Note: The reboot process takes about 5 minutes to complete.
3. When the Dell logo and the text F2=System Setup is shown, press **F2**.
System Setup is shown.
4. Select iDRAC settings.
5. Select Network.
6. Scroll down until IPV4 SETTINGS is shown.
7. Enter `<static_idrac_ip_address>` in the Static IP Address field, for example, `10.0.3.<sequential_number>`, with 20 as sequential number in the first server, 21 in the second, and so on.
8. Enter `<static_gateway_ip_address>` in the Static Gateway field, for example: `10.0.3.1`.
9. For the Static SubnetMask field, use a suitable number, as described in the local version of IP and VLAN Plan.
Note: A Single Server deployment requires an additional static IP address for the gateway interface.
10. Exit network configuration by pressing **Esc**.
11. Scroll down and select User Configuration.
12. Enter `admin` in the User Name field.
13. Enter `<password>` in the Change Password field, and press **Enter**.



Note: For information on strong passwords, refer to the section about strong password conditions in the document [System Hardening Guideline](#).

14. Re-enter **<password>** when requested to Re-enter password, and select OK.

15. Exit from User Configuration:

- a. Press **Esc**.
- b. Press **Esc** again.

16. Select Yes when warned about Saving Changes.

17. Select OK when the Success dialog is shown.

18. Press **Esc**.

19. Select Yes when asked: Are you sure you want to exit and reboot?

Note: The reboot process takes about five minutes to complete.

20. If no further procedures are to be performed, remove the cables connected in Step 1.

2.2 Configure Dell RAID Setup

This section describes how to configure the RAID setup.

The Dell configuration covered in this section is a manual procedure.

All servers must be configured one by one as follows:

1. Connect the screen, keyboard, and optionally, mouse to the server, as shown in Figure 1.

2. Reboot the connected server by using **Ctrl+Alt+Del**.

Note: The reboot process takes about five minutes to complete.

3. Press **Ctrl+R** when the following text is shown:

Press **<Ctrl><R>** to Run Configuration Utility

4. Remove the old disk configuration if necessary, by using the following procedure:

Repeat the following steps for all existing Virtual Disks:

- a. Select VD Mgmt, if necessary.
- b. Press **F2**.
- c. Select Delete VD.



- d. Answer **Yes** to the question: Do you want to delete VD?

5. Create new disk configuration:

- a. Select No Configuration Present ! and press **F2**.
- b. Select Create New VD.
- c. Move to field RAID Level and press **Enter**.
- d. Select option RAID-1.

Note: This is the recommended setup. RAID-0 can also be configured if the storage capacity is not sufficient, but in this case local storage redundancy is disabled. For more information on insufficient storage capacity, refer to the **Storage Configuration** section of Single Server System Dimensioning Guide, CEE 6 or of Multi-Server System Dimensioning Guide, CEE 6.

- e. Move to each of the physical disks and press **Enter** to add them.
- f. Select the VD Name field and enter **BOOT**.
- g. Click OK.
- h. Answer OK to the warning message It is recommended that all newly created logical drives be initialized unless you are attempting to recreate a previous configuration and recover data as initialization is a destructive process.
- i. Select the newly created BOOT disk and press **F2**.
- j. Select option Initialization followed by sub-option Fast Initialization.
- k. Answer YES to the question Initialization will destroy data on the virtual disk. Are you sure you want to continue?
- l. Wait until 100% complete is reported.
- m. Press **ESC**.
- n. Answer OK to the question Are you sure you want to exit?
- o. Reboot the connected blade by using **Ctrl+Alt+Del**.

Note: The reboot process takes about 5 minutes to complete.

6. Remove the cables connected in Step 1.



2.3 Enable PXE Boot on Control Network Domain NICs

This section describes how to enable PXE boot on NICs.

It is recommended to enable PXE only on interfaces in the Control Network domain.

The Dell configuration covered in this section is a manual procedure.

Configure the servers one by one. Follow the below steps:

1. Connect the screen, keyboard, and optionally, mouse to the server, as shown in Figure 1.

2. Reboot the connected server by pressing **Ctrl+Alt+Del**.

Note: The reboot process takes about five minutes to complete.

3. Press **F2** when the Dell logo and the text **F2=System Setup** is shown.

Result:

System Setup is displayed.

4. Select **Device Settings**.

5. Select **Integrated NIC <nic_nr> Port <port_nr>: Intel(R) Gigabit 4P 1350-t rNDC - <mac_address>**.

Note: Integrated NIC 1 Port 1 and Integrated NIC 1 Port 2 are recommended as interfaces in the Control Network domain.

6. Select **NIC Configuration**.

7. Select **PXE** for **Legacy Boot Protocol** in the combo box.

Note: It is recommended to select **None** for non Control Network domain interfaces.

8. Exit the network by pressing **Back**.

9. Exit **Main Configuration Page** by pressing **Finish**.

10. Select **Yes** when warned about Saving Changes.

11. Repeat the setting procedure from Step 5 for further interfaces, if required. Else, continue with Step 12.

12. Exit **Device Settings** by pressing **Finish**.

13. Select **Yes** when asked: Confirm Exit.

14. If there are no further procedures, remove the cables connected in Step 1.



Reference List

- [1] Dell web site <http://www.dell.com/>