

Hewlett Packard Enterprise DL380 Gen10

HPE ProLiant DL380 Gen10 2U Rack Server Instruction Manual

Model: DL380 Gen10 | Brand: Hewlett Packard Enterprise

1. INTRODUCTION

The HPE ProLiant DL380 Gen10 2U Rack Server is engineered for superior performance, reliability, and manageability in enterprise-level workloads and applications. Featuring powerful Xeon processors and DDR4 memory, this server is designed to handle demanding tasks such as database applications, virtualizations, and large-scale simultaneous applications. Its robust design includes hot-swappable power supplies to ensure continuous operation of critical applications.

This manual provides essential information for the safe and efficient setup, operation, and maintenance of your HPE ProLiant DL380 Gen10 server.

2. SAFETY INFORMATION

- Always disconnect power before performing any maintenance or installation procedures.
- Ensure proper grounding to prevent electrical shock.
- Do not operate the server with covers removed unless specifically instructed for maintenance or troubleshooting.
- Install the server in a well-ventilated area to prevent overheating.
- Use appropriate lifting techniques when handling the server due to its weight.

3. PACKAGE CONTENTS

Verify that all components are present in your package:

- HPE ProLiant DL380 Gen10 2U Rack Server
- Rail Kit for rack installation
- Power Cords (for redundant power supplies)
- Documentation (including this manual)

Note: Hard drives and memory upgrades are included separately and require installation. They are not pre-installed in the server.

4. SETUP

4.1. Rack Installation

The HPE ProLiant DL380 Gen10 server is designed for 2U rack mounting. Use the provided rail kit for secure installation.



Figure 4.1: HPE ProLiant DL380 Gen10 Rail Kit. This image shows the two metal rails used for mounting the server into a standard server rack.

1. Attach the inner rails to the sides of the server.
2. Mount the outer rails to the rack posts, ensuring they are level and aligned.
3. Slide the server into the rack until it locks into place.
4. Secure the server to the rack using the provided screws.

4.2. Component Installation (Hard Drives and Memory)

Hard drives and memory modules are not pre-installed and must be added before initial power-on.

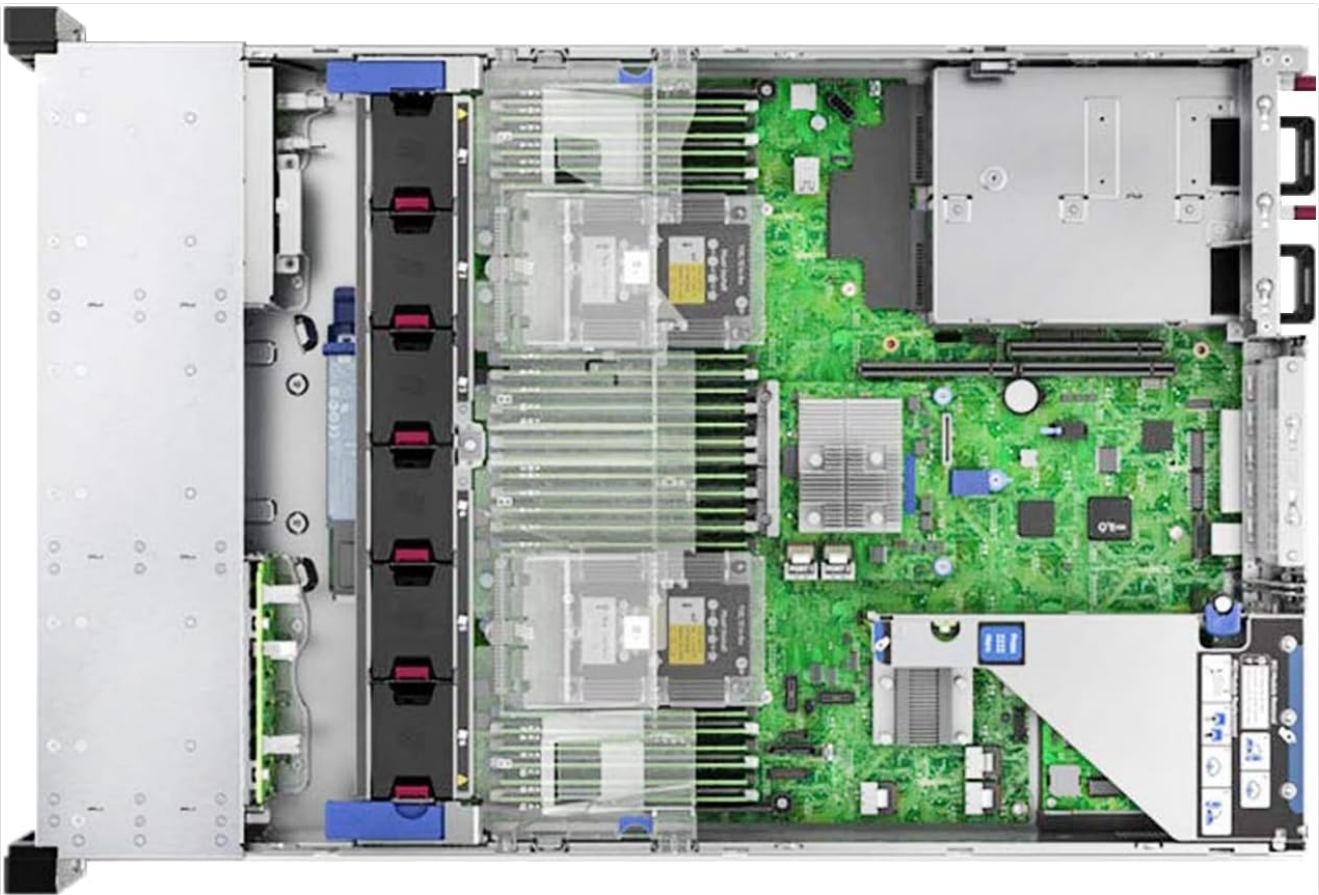


Figure 4.2: Internal view of the HPE ProLiant DL380 Gen10 server, showing the layout of components including CPU sockets, memory slots, and drive bays.

4.2.1. Hard Drive Installation

The server supports 7.68TB (4 x 1.92TB) Enterprise 2.5" SATA III 6Gb/s SSDs. Locate the front drive bays.



Figure 4.3: Front view of the HPE ProLiant DL380 Gen10 server, displaying the accessible drive bays for storage installation.

1. Open the drive bay latches.
2. Insert each SSD into an available drive bay until it clicks into place.
3. Close the drive bay latches.

4.2.2. Memory Installation

The server is equipped with 256GB (8 x 32GB) DDR4 PC4-25600 3200MHz Unbuffered Memory. Refer to the server's internal diagram for correct DIMM slot population order.

1. Locate the memory slots on the motherboard.
2. Open the retaining clips on each end of the memory slot.
3. Align the memory module with the slot key and press firmly until the clips snap into place.

4.3. Power Connection

The server features redundant power supplies for enhanced reliability.



Figure 4.4: Rear view of the HPE ProLiant DL380 Gen10 server, showing the redundant power supply units and network ports.

1. Connect the power cords to both power supply units at the rear of the server.
2. Plug the other end of the power cords into separate, grounded power outlets or a UPS.

4.4. Network Connection

The server includes a Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Network Controller.

1. Connect Ethernet cables from your network infrastructure to the network ports on the rear of the server.

4.5. Initial Boot and iLO Setup

The server utilizes HPE ProLiant Integrated Lights Out (iLO) 5 for remote management.

1. Power on the server.
2. During boot, access the iLO setup utility (usually by pressing F8 or F9, refer to on-screen prompts).
3. Configure network settings for iLO and set a secure password.

4.6. Operating System Installation

The server supports Windows Server or Linux operating systems.

1. Insert your OS installation media (USB or network boot).
2. Follow the on-screen instructions to install the operating system.
3. Install all necessary drivers and updates for optimal performance.

5. OPERATING INSTRUCTIONS

5.1. Basic Operation

Once the operating system is installed and configured, the server is ready for use. Manage the server directly via a connected monitor, keyboard, and mouse, or remotely via iLO.

5.2. Remote Management with iLO 5

HPE iLO 5 provides comprehensive remote management capabilities, allowing you to monitor server health, perform power operations, and access the server console from any location with network access.

- Access iLO via a web browser using its configured IP address.
- Log in with your credentials to access the iLO dashboard.
- Utilize features such as remote console, virtual media, and power control.

5.3. RAID Configuration

The server includes a P408i-a/2GB with Smart Storage Battery for RAID configuration. This controller manages your SSD storage for data protection and performance.

1. During server boot, access the RAID controller utility (refer to on-screen prompts for the specific key).
2. Create desired RAID arrays (e.g., RAID 0, 1, 5, 6, 10) using your installed SSDs.
3. Ensure proper logical drive configuration for your operating system and applications.

5.4. Power Management

The redundant power supply system ensures continuous operation even if one power supply fails. Monitor power supply status via iLO or the server's front panel indicators.

6. MAINTENANCE

6.1. Hot-Swappable Components

The server's hot-swappable power supplies allow for replacement without powering down the server, minimizing downtime.

- To replace a faulty power supply, identify the failed unit via iLO or indicator lights.
- Unplug the power cord from the faulty unit.
- Release the latch and slide out the power supply.
- Insert the new power supply until it locks into place and connect its power cord.

6.2. Firmware and Software Updates

Regularly update server firmware (BIOS, iLO, RAID controller) and operating system software to ensure optimal performance, security, and compatibility.

- Visit the Hewlett Packard Enterprise support website for the latest updates for your DL380 Gen10 model.
- Follow the provided instructions for each update carefully.

6.3. Cleaning and Environmental Control

- Keep the server environment clean and free of dust.
- Ensure proper airflow around and through the server.
- Periodically inspect and clean air filters if present.

7. TROUBLESHOOTING

This section provides general troubleshooting steps for common server issues.

7.1. Server Not Powering On

- Verify that power cords are securely connected to both the server and the power source.
- Check power supply indicator lights for any error states.
- Ensure the power source is active.

7.2. No Video Output

- Ensure the monitor is connected and powered on.
- Check the video cable connection.
- Access iLO remote console to verify server boot progress.

7.3. Operating System Not Loading

- Verify boot order in BIOS settings.
- Check RAID array status in the RAID controller utility.
- Run diagnostic tools available through iLO or bootable media.

7.4. Network Connectivity Issues

- Check network cable connections and link lights on the network ports.
- Verify network configuration in the operating system.
- Ensure network drivers are correctly installed and updated.

8. SPECIFICATIONS

Below are the detailed specifications for the HPE ProLiant DL380 Gen10 server:

Feature	Specification
Brand	Hewlett Packard Enterprise
Model Number	DL380 Gen10
CPU Model	Dual Xeon Gold 6130 (16-Core, 2.10 GHz, 22MB Cache, Up To 3.70 GHz Turbo)
RAM Memory Installed Size	256 GB (8 x 32GB) DDR4 PC4-25600 3200MHz Unbuffered Memory
Memory Storage Capacity	7.68 TB (4 x 1.92TB) Enterprise 2.5" SATA III 6Gb/s SSDs
Storage Controller	P408i-a/2GB with Smart Storage Battery
Network Controller	Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3
Remote Management	HPE ProLiant Integrated Lights Out (iLO) 5
Power	Redundant Power Supply
Operating System Support	Windows Server or Linux
Item Dimensions	28 x 10 x 20 inches
Total USB Ports	7

Feature	Specification
Total Expansion Slots Quantity	8
Security Features	iLO 5 remote management, enterprise-level security features

9. WARRANTY AND SUPPORT

For warranty information, technical support, and additional resources, please visit the official Hewlett Packard Enterprise website or contact your authorized HPE reseller. Keep your product's serial number and purchase date readily available when seeking support.

