Installing the HP DL360 G7 Server

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Contents

Chapter 1: Installing the HP ProLiant DL360 G7 Server 5
HP DL360 G7 Server overview 5
How to use this document 5
Downloading HP documentation 5
HP DL360 document set 6
Front view of HP DL360 G7 Server 6
Back view of HP DL360 G7 Server 7
HP DL360 G7 Server specifications 8
HP DL360 G7 Server power specifications 9
HP DL360 G7 Server environmental specifications 9
HP DL360 G7 Server physical specifications 9
Installing the server in the rack 10

Chapter 1: Installing the HP ProLiant DL360 G7 Server

HP DL360 G7 Server overview

The Avaya Common Servers category includes the HP ProLiant DL360 G7 1U server that supports several Avaya software solutions, some requiring additional hardware and memory requirements beyond the standard configuration. This book covers the standard configuration only—consult specific Avaya product documentation for application-specific or solution-specific server configurations.

How to use this document

This guide contains information for installing the HP DL360 Server as part of an Avaya deployment and provides:

- • Instructions for how to find the appropriate online server documentation from HP.
- • References to specific topics in standard HP documentation
- • Suggested changes, details, and notes to assist the user in interpreting the manufacturer's documentation and to clarify Avaya's recommended implementation of the equipment
- • Additional topics not covered in standard HP documentation but which are necessary for successful installation and maintenance of Avaya products

Downloading HP documentation

Use this procedure to find and download the HP ProLiant DL360 G7 documentation.

Procedure

1. Open a browser and go to http://support.avaya.com.
2. Expand **Documentation** in the left hand menu.
3. Click **View All Documents**.
4. Click **C** in the alphabetical list along the top of the screen.

5. Scroll down to **Common Servers** in the C products.
6. Download the documents that you need.

HP DL360 document set

See the following documents for HP DL360 server information and procedures.

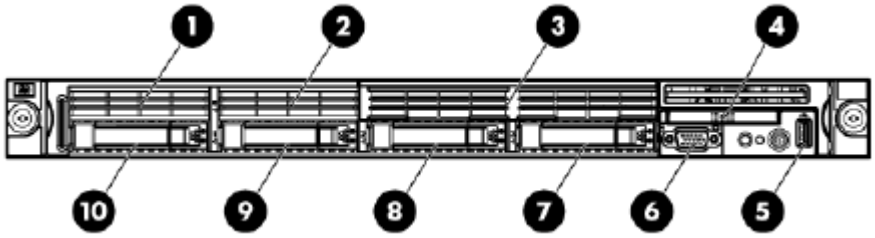
Documents

- HP ProLiant Servers Safety Information
- HP ProLiant DL360 G7 Server Maintenance and Service Guide
- HP ProLiant Servers Troubleshooting Guide
- HP ProLiant DL360 G7 Server User Guide

Documents included in the shipping container

Abbreviation	Title	Part number
1URH	1U Rack Hardware Installation Instructions	365 494–004
PCS	Power Cord Strain Relief Kit	407 454–021

Front view of HP DL360 G7 Server



Note:

Servers ship with 2–4 hard disk drives, depending upon product requirements.

No.	Description
1	Not present
2	Not present
3	DVD-RW
4	HP Systems Insight Display

Table continues…

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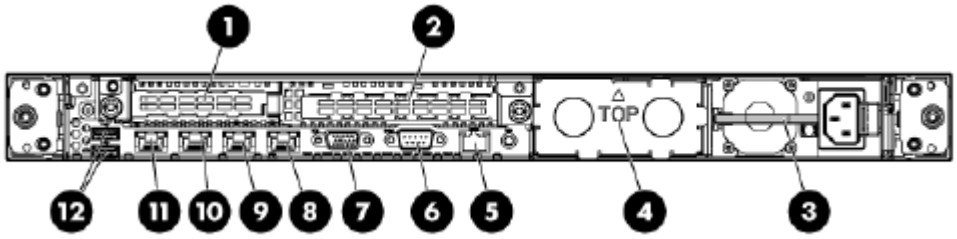
No.	Description
5	Front USB connector
6	Video connector
7	Hard drive bay 4
8	Hard drive bay 3
9	Hard drive bay 2
10	Hard drive bay 1

Back view of HP DL360 G7 Server



No.	Description
1	Slot 1 PCIe2 x8 (8, 4, 2, 1) **Note:** Servers might ship with a PCI card installed, depending upon product requirements.
2	Slot 2 PCIe2 x16 (16, 8, 4, 2, 1), 75W +EXT 75W* **Note:** Servers might ship with a PCI card installed, depending upon product requirements.
3	Power supply bay 1 (populated)
4	Power supply bay 2
5	iLO 3 connector
6	Serial connector
7	Video connector
8	NIC 4 connector
9	NIC 3 connector
10	NIC 2 connector
11	NIC 1 connector
12	USB connectors (2)

*This expansion slot provides 75 W of power to an adapter, with an additional 75 W of power supplied by external power.

HP DL360 G7 Server specifications

Base unit	Baseline	Options
DL360 G7	1U chassis, dual socket	No additional options supported.
Processor	Intel E5620 Quad Core /2.4 GHz (Westmere) 3 memory channels per CPU with up to 3 RDIMMs per channel (most applications use 1 or 2 RDIMMs per channel to optimize memory speed)	• Intel X5670 six Core/2.93 GHz (Westmere) • Upgradable to dual processors for either E5620 or X5670
Memory	2 GB DDR3 RDIMMs (1333 MHz)	4 GB DDR3 RDIMMs (1333 MHz)
HW RAID 1	P410i RAID controller with 256MB cache and battery backup. Optioned as RAID 1 or 5	N/A
Hot-Plug disk drive cage	4 Small Form Factor 2.5” hot-plug hard drives bays are available when an optical drive is installed.	HP offers servers with 8 drive bays that do not support an optical drive (not supported by Avaya).
Disk drive	146GB SAS 2.5" 10K RPM 6G DP Hard Drive. Two base configurations: • 136 total: RAID 1, 2 x 146GB drives • 272 total: RAID 5, 3 x 146GB drives	Options: • Additional 146GB 10K RPM drive (4 max. with optical drive) • High performance 146GB 15K drives • 300GB 10K HDD
NICs	4 integrated ENET Gigabit NIC ports with TCP offload engine (included on motherboard)	HP NC382T PCI Express Dual Port Gigabit NIC expansion card (Broadcom 5709 silicon)
PCI slots	Two PCI-Express Gen 2 expansion slots: (1) full-length, full-height slot and (1) low-profile slot (1-FL/FH x 16 PCIe & 1-LP x 8 PCIe Riser	Meeting Exchange Recording uses a PCI-X riser in place of the low profile PCIe riser in the standard server.
Removable media	Slim line SATA DVD-RW optical drive (used in all Avaya configurations)	No additional options supported.
Power supply	460 W hotplug AC power supply	• 750W AC power supply • 1200W DC power supply • Single and dual power supply configurations
Fans	3 fan modules (fan redundancy standard)	No additional options supported.
Additional items	1 front USB, 2 back USB, 1 internal USB	

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HP DL360 G7 Server power specifications

Specification	Value
BTU	1794
Voltage	120 VAC
Plug Type	NEMA 5–15P
Circuit Breaker	15 amp
Pole	1
AMP Draw	5.5

HP DL360 G7 Server environmental specifications

Specification	Value
Temperature range	**Note:** All temperature ratings shown are for sea level. An altitude derating of 1°C per 300 m (1.8° per 1,000 ft.) to 3048 m (10,000 ft.) is applicable. No direct sunlight allowed.
Operating	10°C to 35°C (50°F to 95°F)
Shipping	-40°C to 70°C (-40°F to 158°F)
Maximum wet bulb temperature	28°C (82.4°F)
Relative humidity (noncondensing)	**Note:** Storage maximum humidity of 95% is based on a maximum temperature of 45° C (113°F). Altitude maximum for storage corresponds to a pressure minimum of 70 kPa.
Operating	10% to 90%
Non-operating	5% to 95%

HP DL360 G7 Server physical specifications

Type	Description
Dimensions	Height: 4.32 cm (1.70 in)
	Width: 42.62 cm (16.78 in)
	Depth: 69.53 cm (27.38 in)

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Type	Description
Weight (maximum; two processors, two power supplies, eight hard disk drives)	15.97 kg (35.20 lb)
Weight (minimum; one processor, one power supply, no hard drives)	14.51 kg (32.00 lb)
Weight (no drives installed)	14.06 kg (31.00 lb)

Installing the server in the rack

This installation checklist contains the principle steps that are necessary to install the server in the rack. Each task refers to an existing HP document and the topic title(s) that contains the step-by-step procedures. Where applicable, additional information and clarifications appear in the *Avaya recommendation* column. Perform each task in the order specified.

Note:

Although not used frequently, Avaya customers are required to have a monitor, keyboard, and mouse available for use by servicing technicians.

No.	Task	Reference	Avaya recommendation	✔
1	Observe safety warnings	ISI UG: *Rack warnings*		
2	Examine contents of shipping container (Avaya provided equipment)	UG: *Contents of the server shipping carton*	Ensure that the 6-digit material code on the order matches the 6-digit material code on the shipping container.	
3	Verify that the rack is installed according to the manufacturer's instructions and in accordance with all local codes and laws			
4	Examine installation environment (customer provided equipment)	UG: *Optimum environment*		
5	Verify that the rack is grounded in accordance with local electrical code.	UG: *Electrical grounding requirements*		

Table continues…

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No.	Task	Reference	Avaya recommendation	✔
6	Remove the cabinet doors, if necessary.			
7	Determine and plan the vertical spacing of the servers in the frame.		Note that air flows into the front of the server and out the air vents located on the top surface of the server chassis. A 1U spacing is sufficient.	
8	Attach the rails to the rack.		The rails included with the server will accommodate most square-hole racks. If these rails do not fit the rack, the customer must provide rails or a shelf for rack installation. Also, the rails included with the server **might not** work with round-hole racks, in which case the customer can obtain rails and/or a shelf from any distributor, for example http://www.racksolutions.com/. The customer-provided rails and rack must be on site prior to the first day of installation. **Note:** The customer is responsible for any rack screws.	
9	Attach the server to the rack.	UG: *Installing the server into the rack*		
10	(Optional) Install the cable management arm.			
11	Connect to the network.			
12	Connect the power cord(s).	SP: *Connecting the power cord to the power supply* UG: *Powering up and configuring the server*		
13	Power up the server.	UG: *Powering up and configuring the server*		

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Index

C

checklist
installation 10

D

documentation
document set 6
downloading 5
how to use this document 5

H

HP DL360 G7
baseline specifications, configuration, and options 8
HP DL360 G7 Server
back view 7
electrical specifications 9
environmental specifications 9
front view 6
physical specifications 9
power specifications 9
HP DL360 G7 Server overview 5