Maintaining and Troubleshooting the HP ProLiant DL360 G7 Server

03-603803
Issue 1
November 2010

© 2010 Avaya Inc.

All Rights Reserved.

Notice

While reasonable efforts have been made to ensure that the information in this document is complete and accurate at the time of printing, Avaya assumes no liability for any errors. Avaya reserves the right to make changes and corrections to the information in this document without the obligation to notify any person or organization of such changes.

Documentation disclaimer

“Documentation” means information published by Avaya in varying mediums which may include product information, operating instructions and performance specifications that Avaya generally makes available to users of its products. Documentation does not include marketing materials. Avaya shall not be responsible for any modifications, additions, or deletions to the original published version of documentation unless such modifications, additions, or deletions were performed by Avaya. End User agrees to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation, to the extent made by End User.

Link disclaimer

Avaya is not responsible for the contents or reliability of any linked Web sites referenced within this site or documentation provided by Avaya. Avaya is not responsible for the accuracy of any information, statement or content provided on these sites and does not necessarily endorse the products, services, or information described or offered within them. Avaya does not guarantee that these links will work all the time and has no control over the availability of the linked pages.

Warranty

Avaya provides a limited warranty on its Hardware and Software (“Product(s)”). Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya’s standard warranty language, as well as information regarding support for this Product while under warranty is available to Avaya customers and other parties through the Avaya Support Web site: http://support.avaya.com. Please note that if you acquired the Product(s) from an authorized Avaya reseller outside of the United States and Canada, the warranty is provided to you by said Avaya reseller and not by Avaya.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE, HTTP://SUPPORT.AVAYA.COM/LICENSEINFO/ ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS AVAYA SOFTWARE, PURCHASED FROM AVAYA INC., ANY AVAYA AFFILIATE, OR AN AUTHORIZED AVAYA RESELLER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH AVAYA OR AN AUTHORIZED AVAYA RESELLER. UNLESS OTHERWISE AGREED TO BY AVAYA IN WRITING, AVAYA DOES NOT EXTEND THIS LICENSE IF THE SOFTWARE WAS OBTAINED FROM ANYONE OTHER THAN AVAYA, AN AVAYA AFFILIATE OR AN AVAYA AUTHORIZED RESELLER; AVAYA RESERVES THE RIGHT TO TAKE LEGAL ACTION AGAINST YOU AND ANYONE ELSE USING OR SELLING THE SOFTWARE WITHOUT A LICENSE. BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (HEREINAFTER REFERRED TO INTERCHANGEABLY AS “YOU” AND “END USER”), AGREE TO THESE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND AVAYA INC. OR THE APPLICABLE AVAYA AFFILIATE (“AVAYA”).

Avaya grants End User a license within the scope of the license types described below. The applicable number of licenses and units of capacity for which the license is granted will be one (1), unless a different number of licenses or units of capacity is specified in the Documentation or other materials available to End User. “Designated Processor” means a single stand-alone computing device. “Server” means a Designated Processor that hosts a software application to be accessed by multiple users. “Software” means the computer programs in object code, originally licensed by Avaya and ultimately utilized by End User, whether as stand-alone Products or pre-installed on Hardware. “Hardware” means the standard hardware originally sold by Avaya and ultimately utilized by End User.

License types

Designated System(s) License (DS). End User may install and use each copy of the Software on only one Designated Processor, unless a different number of Designated Processors is indicated in the Documentation or other materials available to End User. Avaya may require the Designated Processor(s) to be identified by type, serial number, feature key, location or other specific designation, or to be provided by End User to Avaya through electronic means established by Avaya specifically for this purpose.

Concurrent User License (CU). End User may install and use the Software on multiple Designated Processors or one or more Servers, so long as only the licensed number of Units are accessing and using the Software at any given time. A “Unit” means the unit on which Avaya, at its sole discretion, bases the pricing of its licenses and can be, without limitation, an agent, port or user, an e-mail or voice mail account in the name of a person or corporate function (e.g., webmaster or helpdesk), or a directory entry in the administrative database utilized by the Software that permits one user to interface with the Software. Units may be linked to a specific, identified Server.

Database License (DL). End User may install and use each copy of the Software on one Server or on multiple Servers provided that each of the Servers on which the Software is installed communicate with no more than a single instance of the same database.

CPU License (CP). End User may install and use each copy of the Software on a number of Servers up to the number indicated by Avaya provided that the performance capacity of the Server(s) does not exceed the performance capacity specified for the Software. End User may not re-install or operate the Software on Server(s) with a larger performance capacity without Avaya's prior consent and payment of an upgrade fee.

Named User License (NU). End User may: (i) install and use the Software on a single Designated Processor or Server per authorized Named User (defined below); or (ii) install and use the Software on a Server so long as only authorized Named Users access and use the Software. “Named User”, means a user or device that has been expressly authorized by Avaya to access and use the Software. At Avaya's sole discretion, a “Named User” may be, without limitation, designated by name, corporate function (e.g., webmaster or helpdesk), an e-mail or voice mail account in the name of a person or corporate function, or a directory entry in the administrative database utilized by the Software that permits one user to interface with the Software.

Shrinkwrap License (SR). Customer may install and use the Software in accordance with the terms and conditions of the applicable license agreements, such as “shrinkwrap” or “clickthrough” license accompanying or applicable to the Software (“Shrinkwrap License”). (see “Third-party Components” for more information).

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, or Hardware provided by Avaya. All content on this site, the documentation and the Product provided by Avaya including the selection, arrangement and design of the content is owned either by Avaya or its licensors and is protected by copyright and other intellectual property laws including the sui generis rights relating to the protection of databases. You may not modify, copy, reproduce, republish, upload, post, transmit or distribute in any way any content, in whole or in part, including any code and software unless expressly authorized by Avaya. Unauthorized reproduction, transmission, dissemination, storage, and or use without

the express written consent of Avaya can be a criminal, as well as a civil offense under the applicable law.

Third-party components

Certain software programs or portions thereof included in the Product may contain software distributed under third party agreements (“Third Party Components”), which may contain terms that expand or limit rights to use certain portions of the Product (“Third Party Terms”). Information regarding distributed Linux OS source code (for those Products that have distributed the Linux OS source code), and identifying the copyright holders of the Third Party Components and the Third Party Terms that apply to them is available on the Avaya Support Web site: http://support.avaya.com/Copyright.

Preventing Toll Fraud

“Toll fraud” is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there can be a risk of Toll Fraud associated with your system and that, if Toll Fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Toll Fraud Intervention

If you suspect that you are being victimized by Toll Fraud and you need technical assistance or support, call Technical Service Center Toll Fraud Intervention Hotline at +1-800-643-2353 for the United States and Canada. For additional support telephone numbers, see the Avaya Support Web site: http://support.avaya.com. Suspected security vulnerabilities with Avaya products should be reported to Avaya by sending mail to: securityalerts@avaya.com.

Trademarks

The trademarks, logos and service marks (“Marks”) displayed in this site, the Documentation and Product(s) provided by Avaya are the registered or unregistered Marks of Avaya, its affiliates, or other third parties. Users are not permitted to use such Marks without prior written consent from Avaya or such third party which may own the Mark. Nothing contained in this site, the Documentation and Product(s) should be construed as granting, by implication, estoppel, or otherwise, any license or right in and to the Marks without the express written permission of Avaya or the applicable third party.

Avaya is a registered trademark of Avaya Inc.

All non-Avaya trademarks are the property of their respective owners, and “Linux” is a registered trademark of Linus Torvalds.

Downloading Documentation

For the most current versions of Documentation, see the Avaya Support Web site: http://support.avaya.com.

Contact Avaya Support

Avaya provides a telephone number for you to use to report problems or to ask questions about your Product. The support telephone number is 1-800-242-2121 in the United States. For additional support telephone numbers, see the Avaya Web site: http://support.avaya.com.

Contents

Chapter 1: Maintaining and Troubleshooting the HP DL360 G7 Server.....7
Introduction.....7
How to use this document.....7
Downloading HP documentation.....7
HP DL360 document set.....8
General troubleshooting.....9
Front-panel troubleshooting indicators.....10
Rear-panel troubleshooting indicators.....11
Troubleshooting external server components.....12
Troubleshooting internal server components.....13
Replacing external components.....16
Replacing internal components.....17
Contacting Avaya Services.....21

Index.....23

Chapter 1: Maintaining and Troubleshooting the HP DL360 G7 Server

Introduction

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 ProLiant DL360 G7 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 maintaining and troubleshooting the Avaya installation

Downloading HP documentation

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

1. Open a browser and go to http://www.hp.com/.
2. Click on `Support and Drivers`.
3. Select `See support and troubleshooting information` in the Step 1 area.
4. In the Step 2 area of the page type `ProLiant DL360` in the For product field.
5. Select `HP ProLiant D:L360 G7 Server series` from the list of search results.
6. Select `Manuals (guides, supplements, addendums, etc.).`
7. Download the document(s) listed in the *HP DL360 G7 document set* > *Documents to download* section below.

HP DL360 document set

Refer to the documents listed below for HP DL360 server information and procedures.

Note:

Download the documents listed in the *Documents to download* section below. Printed copies of the documents listed in the *Documents included in the shipping container* section below ship with the server.

Documents to download

Abbreviation	Title	Part number
SI	Important Safety Information for Server Storage, Power, Networking, and Rack Products	No number
MSG	HP ProLiant DL360 G7 Server Maintenance and Service Guide	608339-003
TS	HP ProLiant Servers Troubleshooting Guide	375445-009
UG	HP ProLiant DL360 G7 Server User Guide	608341-003

Note:

If you want to locate an individual document:

- Go to http://www.hp.com/.
- Type `DL360 G7` plus the keywords of the document title in the Search field in the upper-right corner and press `Enter`.

Examples:

- Type `DL360 User Guide` to search for the *HP ProLiant DL360 G7 Server User Guide* document.
- Type `DL360 Maintenance Service` to search for the *HP ProLiant DL360 G7 Server Maintenance and Service Guide* document.

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

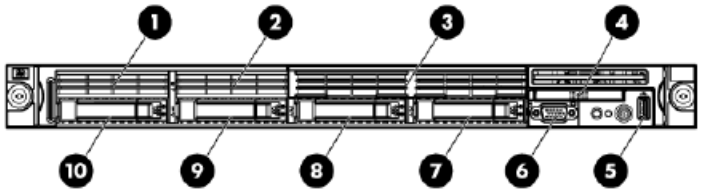
General troubleshooting

The references listed below contain general troubleshooting information.

Topic	Reference	Avaya recommendation
Getting started with server troubleshooting	TG: *Getting started*	
Common problems	TG: *Common problem resolution*	
Diagnostic gflowcharts	TG: *Diagnostic flowcharts*	
HP resources	TG: *HP resources for troubleshooting*	
Error messages:		
• POST error messages and beep codes (separate		• Review beep codes. If suggested action can be accomplished, replace server. • Memory: ensure that DIMMs are installed

Topic	Reference	Avaya recommendation
alphabetical and numeric lists) • Event list error messages • Insight Diagnostics processor error codes		correctly. Reseat memory if necessary.

Front-panel troubleshooting indicators



Note:

Servers ship with two or more hard disk drives, depending upon product requirements.

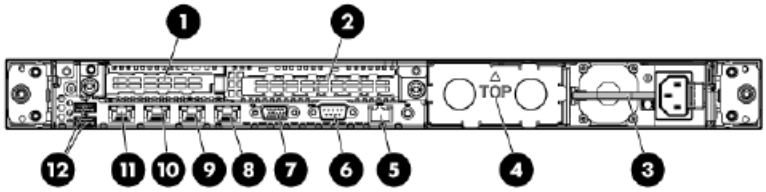
No.	Description
1	Hard disk drive not present.
2	Hard disk drive not present.
3	Activity LED on DVD-RW drive intermittent when DVD is loaded.
4	Systems Insight Display has several LEDs to indicate problems with: • Processor • DIMMs • Fans • Temperature • Power supply • Power capacity See UG: *Systems Insight Display LEDs*
5	Front USB connector
6	Video connector
7	Hard disk drive LEDs

No.	Description
8	Hard disk drive LEDs
9	Hard disk drive LEDs
10	Hard disk drive LEDs

Note:

In addition to the indicators listed above see also UG: *Front panel LEDs and buttons*.

Rear-panel troubleshooting indicators



No.	Description
1	Slot 1 PCIe2 x8 (8, 4, 2, 1) **Note:** A half HT faceplate is required, and you might need to remove the full faceplate and replace it with a half faceplate (requires a Phillips screwdriver). If adding a NIC, PCI Slot 1 must be used prior to slot 2 (applies to NICs only).
2	Slot 2 PCIe2 x16 (16, 8, 4, 2, 1), 75W +EXT 75W*
3	Power supply LEDs
4	Optional power supply LEDs
5	iLO 3 connector
6	Serial connector
7	Video connector
8	NIC LEDs
9	NIC LEDs
10	NIC LEDs
11	NIC LEDs
12	USB connectors (2)

Note:
In addition to the indicators listed above see also UG: *Rear panel LEDs and buttons*.

Troubleshooting external server components

Use the checklist below to troubleshoot any of the following external server components:

Part number	Description	Hot-swappable?
700501426	DL360G7 SRVR 146GB 10K SAS 2.5" HDD	Y
700501249	DL360G7 SRVR 146GB 15K SAS 2.5" HDD	Y
700501314	DL360G7 SRVR 300GB 10K SAS 2.5" HDD	Y
700501182	DL360G7 SRVR PWR SUP 460W HE	Y, if redundant
700501312	DL360G7 SRVR AC PWR SUP 750W	Y, if redundant
700501313	DL360G7 SRVR DC PWR SUP 1200W	Y, if redundant

No.	Task	Reference	Avaya recommendation	✔
1	Visually check for hardware LED fault indicators:			
	• DL360G7 SRVR 146GB 10K SAS 2.5" HDD • DL360G7 SRVR 146GB 15K SAS 2.5" HDD • DL360G7 SRVR 300GB 10K SAS 2.5" HDD	MSG: *SAS and SATA hard drive LEDs* TG: *Hard drive LED combinations*	If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	

No.	Task	Reference	Avaya recommendation	✔
	• DL360G7 SRVR PWR SUP 460W HE • DL360G7 SRVR AC PWR SUP 750W • DL360G7 SRVR DC PWR SUP 1200W	MSG: *Rear panel LEDs and buttons* MSG: *Systems Insight Display LED combinations* TG: *Power supply problems*	If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	
2	If the hardware LED indicates a problem, consult the appropriate troubleshooting information:			
	• DL360G7 SRVR 146GB 10K SAS 2.5” HDD • DL360G7 SRVR 146GB 15K SAS 2.5” HDD • DL360G7 SRVR 300GB 10K SAS 2.5” HDD	TG: *Drive problems (hard drives and solid state drives)* TG: *Hard drive LED combinations*	If amber LED b links regularly, replace the HDD.	
	• DL360G7 SRVR PWR SUP 460W HE • DL360G7 SRVR AC PWR SUP 750W • DL360G7 SRVR DC PWR SUP 1200W	TG: *Power supply problems*	Check for loose connector.	
3	If the part is defective, see *Replacing external server components*.			

Troubleshooting internal server components

Use the checklist below to troubleshoot any of the following internal server components:

Part number	Description
700501424	DL360G7 DVD-RW DRIVE W/ BRKT

Part number	Description
700501322	DL360G7 SRVR DUAL PORT 1GB NIC
700501425	DL360G7 SRVR FAN FRU
700501318	DL360G7 SRVR 2GB MEMORY DIMM
700501319	DL360G7 SRVR 4GB MEMORY DIMM
700501324	DL360G7 SRVR 650 MAH RAID BATTERY

No.	Task	Reference	Avaya recommendation	✔
1	Visually check for LED fault indicators:			
	• DL360G7 DVD-RW DRIVE W/ BRKT	TG: *CD-ROM and DVD drive problems*	If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	
	• DL360G7 SRVR DUAL PORT 1GB NIC	MSG: *Rear panel LEDs and buttons* MSG: *Systems Insight Display LED combinations*	**Note:** Only refer to Item 2, *NIC LEDs*. If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	
	• DL360G7 SRVR FAN FRU	MSG: *Systems Insight Display LED combinations*	If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	
	• DL360G7 SRVR 2GB MEMORY DIMM • DL360G7 SRVR 4GB MEMORY DIMM	MSG: *Systems Insight Display LED combinations* TG: *Memory problems*	If the hardware LED indicates a problem, consult the appropriate troubleshooting information.	
	• DL360G7 SRVR 650 MAH RAID BATTERY		If the hardware LED indicates a problem, consult the appropriate	

No.	Task	Reference	Avaya recommendation	✔
			troubleshooting information.	
2	If the hardware LED indicates a problem, consult the appropriate troubleshooting information:			
	• DL360G7 DVD-RW DRIVE W/ BRKT	TG: *CD-ROM and DVD drive problems*	Perform only Steps 3 and 4 in the *System does not boot from the drive* section. Perform all of the steps in the *Data read from the drive is inconsistent, or drive cannot read data*" and *Drive is not detected* sections. If problem persists, order replacement drive.	
	• DL360G7 SRVR DUAL PORT 1GB NIC	TG: *Expansion board problems*	Check NIC indicator LEDs. If problem persists, order replacement NIC.	
	• DL360G7 SRVR FAN FRU	TG: *Fan problems*	If problem persists, order replacement fan.	
	• DL360G7 SRVR 2GB MEMORY DIMM • DL360G7 SRVR 4GB MEMORY DIMM	TG: *Memory problems*	If problem persists, order replacement memory.	
	• DL360G7 SRVR 650 MAH RAID BATTERY			
3	If the part is defective, see *Replacing internal server components*.			

Replacing external components

Use the checklist below to replace any of the following external server components:

Part number	Description	Hot-swappable?
700501426	DL360G7 SRVR 146GB 10K SAS 2.5” HDD drive	Y
700501249	DL360G7 SRVR 146GB 15K SAS 2.5” HDD	Y
700501314	DL360G7 SRVR 300GB 10K SAS 2.5” HDD	Y
700501182	DL360G7 SRVR PWR SUP 460W HE	Y, if redundant
700501312	DL360G7 SRVR AC PWR SUP 750W	Y, if redundant
700501313	DL360G7 SRVR DC PWR SUP 1200W	Y, if redundant

Note:

Hard disk drives and redundant power supplies are hot-swappable; you do not have to power down the server. Replacing a power supply usually does not require removing the server from the rack unless cables or other obstructions prevent removing and replacing the power supply.

No.	Task	Reference	Avaya recommendation	✔
1	Power down server (if necessary)	MSG: *Power down the server*	Determine whether the replaceable component is hot-swappable.	
2	Slide the server out of the rack (if necessary)	MSG: *Extend the server from the rack* MSG: Remove the server from the rack	Check that the Cable Management Arm (if present) moves freely out of the way of rear panel components.	
3	Replace the component:			

No.	Task	Reference	Avaya recommendation	✔
	• DL360G7 SRVR 146GB 10K SAS 2.5” HDD • DL360G7 SRVR 146GB 15K SAS 2.5” HDD • DL360G7 SRVR 300GB 10K SAS 2.5” HDD	MSG: Removal and replacement procedures > *SAS and SATA hard drive* MSG: Removal and replacement procedures > *Hard drive blank*		
	• DL360G7 SRVR PWR SUP 460W HE • DL360G7 SRVR AC PWR SUP 750W • DL360G7 SRVR DC PWR SUP 1200W	MSG: Removal and replacement procedures > *Hotplug power supply* MSG: Removal and replacement procedures > *Power supply blank*	Ensure that the replacement power supply matches the specifications of the defective power supply.	
4	Slide the server into the rack (if necessary)	UG: *Installing the server into the rack*	Check that the Cable Management Arm (if present) moves freely out of the way of rear panel components.	
5	Connect the power cable(s) to the power supply (if necessary)	UG: *Powering up and configuring the server*		
6	Power up the server (if necessary)	UG: *Power up the server*		

Replacing internal components

Use the checklist below to replace any of these internal server components:

Part number	Description
700501424	DL360G7 DVD-RW DRIVE W/ BRKT
700501322	DL360G7 SRVR DUAL PORT 1GB NIC
700501425	DL360G7 SRVR FAN FRU

Part number	Description
700501318	DL360G7 SRVR 2GB MEMORY DIMM
700501319	DL360G7 SRVR 4GB MEMORY DIMM
700501324	DL360G7 SRVR 650 MAH RAID BATTERY

Note:

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

No.	Task	Reference	Avaya recommendation	✔
1	Have the proper tools	MSG: *Required tools*		
2	Observe safety warnings	TG:"*Important safety information* MSG: *Safety considerations*		
3	Power down the server	MSG: Removal and replacement procedures > *Power down the server*		
4	Slide the server out of the rack	MSG: Removal and replacement procedures > *Extend the server from the rack* MSG: Removal and replacement procedures > *Remove the server from the rack*		
5	Remove the cover	MSG: Removal and replacement procedures > *Access panel*	**Electrostatic alert:** Ensure that you are properly grounded before handling internal components.	
6	Replace the component:			
	• DL360G7 DVD-RW DRIVE W/ BRKT	MSG: Removal and replacement procedures: • *DVD tray* • *DVD-ROM or DVD-RW drive*	Omit Steps 4 and 5 from both procedures. You do not need to remove the air baffle or the BBWC battery pack.	

No.	Task	Reference	Avaya recommendation	✔
	• DL360G7 SRVR DUAL PORT 1GB NIC	MSG: Removal and replacement procedures: • PCI riser board assembly • *Expansion boards* • *PCIe riser board*	Mark any cables connected to the NIC and reconnect to the same ports after the NIC is replaced. The NIC requires a half-HT faceplate. You might need to remove the full faceplate and replace it with the half faceplate, which requires a crosshatch (Phillips) screwdriver. **Note:** If adding a NICs: populate PCI Slot 1 first, followed by Slot 2.	
	• DL360G7 SRVR FAN FRU	MSG: Removal and replacement procedures > *Fan module*	Refer to the Systems Insight Display LEDs to identify the defective fan.	
	• DL360G7 SRVR 2GB MEMORY DIMM • DL360G7 SRVR 4GB MEMORY DIMM	MSG: Removal and replacement procedures > *DIMMs*	Refer to the Systems Insight Display LEDs to identify the defective DIMM. **Caution:** When removing the air baffle, ensure that the RAID battery does not fall out of its compartment in the baffle. **Caution:** Refer to the information on the top of the air baffle and inside cover for correct DIMM placement.	
	• DL360G7 SRVR 650 MAH RAID BATTERY	MSG: Removal and replacement procedures > *BBWC battery pack or FBWC capacitor pack*	**Caution:** Consult the internal label with directions for removing the air baffle. Be careful that the RAID battery does	

No.	Task	Reference	Avaya recommendation	✔
			not fall out of its compartment in the baffle. To remove the cable from the battery, gently rock the connector back and forth and free of the alignment slots. **Caution:** When replacing the air baffle and facing the front of the server, insert the left side into the alignment slots, then gently flex the baffle so that the right side slides into its alignment slot easily. DO NOT attempt to force or pound the baffle into place. **Caution:** DO NOT pinch the battery cable when replacing the air baffle.	
7	Replace the cover	MSG: Removal and replacement procedures > *Access panel*		
8	Slide the server into the rack	RI-SR	Check that the Cable Management Arm (if present) moves freely out of the way of rear panel components.	
9	Connect and secure the power cords	GS: *Connecting the Power Cables* GS: *Securing the Power Cord*		
10	Power up the server	GS: *Turning on the System*		

Contacting Avaya Services

Avaya provides a telephone number to report problems or to ask questions about your product:

- The support telephone number is 1–800–242–2121 in the United States.
- For additional support telephone numbers, see the Avaya Website: http://www.avaya.com/support.

Index

A

Avaya Services
  contacting 21

D

documentation
  document set 8
  downloading 8
  how to use this document 7

F

field-replaceable units
  external 16
  internal 17
front panel
  troubleshooting indicators 10

I

introduction 7

R

rear panel
  troubleshooting indicators 11

T

troubleshooting
  general 9
  external 12
  internal components 13