Planning and Preparation Guide

Rapid EqualLogic Configuration Series
Switch: Dell Force10 S25N or S50N
Array: PS4100, PS6100, or PS6500
Host: VMware ESXi, Windows or Red Hat Enterprise Linux

April 2014

Revisions

Date	Description
April 2012	Initial release
February 2013	Combined all Force10 S25N/S50N Introduction documents into one
April 2014	Added RHEL configuration information

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1 Introduction

This document is one part of a complete installation guide series from the Rapid EqualLogic Configuration Portal. Please make sure that you have the complete set for your configuration before proceeding.
Full link to document site:
http://en.community.dell.com/techcenter/storage/w/wiki/3615.rapid-equallogic-configuration-portal-by-sis.aspx

1.1 Document use

Keyboard keys are shown in brackets with the actual key bolded.
Example: [**Enter**]

Commands that are to be typed are bolded and shown after the appropriate prompt.
Example:

```
console>enable
```

1.2 Intended audience

This document series has been written for system or storage administrators with experience deploying Windows®, VMware® vSphere ESXi™ or Red Hat Enterprise Linux® servers, storage systems, and Ethernet networking. If you are unsure about completing the installation, Dell support is available and ready to assist you.

1.3 List of references

- TR1050 – Monitoring Your PS Series SAN with SAN HeadQuarters
  https://support.equallogic.com/WorkArea/DownloadAsset.aspx?id=8749

Note: A login is required to access the EqualLogic support site.

- *SAN HQ User Guide,* available for download on www.equallogic.com

- *Dell EqualLogic Configuration Guide*, available for download at:
  http://en.community.dell.com/dell-groups/dtcmedia/m/mediagallery/19852516/download.aspx

- Dell EqualLogic Compatibility Matrix, available for download at:
  http://en.community.dell.com/techcenter/storage/w/wiki/2661.equallogic-compatibility-matrix-07262013.aspx

2 Prerequisites

2.1 Equipment

- A null-modem DB9 serial cable (included with the array)
- A switch serial console management cable (included with the switch)

2.2 Software

2.2.1 VMware host operating system

- Latest EqualLogic Multipathing Extension Module for VMware® vSphere installation package (equallogic.com/support).

Note: A login is required to access the EqualLogic support site.

- Latest SAN HeadQuarters installation package (equallogic.com/support).
- The VMware vSphere® Command-Line Interface (vCLI) environment must be installed on the management server (vmware.com/downloads).
- Latest network device driver update (vmware.com/downloads).

Before proceeding, you may need to download a driver update package for your network adapter. Refer to the readme.txt contained in the update file for instructions on updating from the ESXi command line or using VMware Update Manager (VUM).

2.2.2 Windows host operating system

- Latest network adapter device driver update (support.dell.com)
- Latest Host Integration Tools (HIT) kit installation package (equallogic.com/support)
- Latest SAN HeadQuarters installation package (equallogic.com/support)

Note: A login is required to access the EqualLogic support site.

2.2.3 Red Hat Enterprise Linux host operating system

- Latest network adapter device driver update (support.dell.com)
- Latest Host Integration Tools (HIT) kit installation package (equallogic.com/support)

Note: A login is required to access the EqualLogic support site.

2.3 Configuration settings

2.3.1 VMware host operating system

This document assumes that you have already installed VMware ESXi and have applied the latest critical patches available through VMware Update Manager.

To properly configure your vSphere ESXi system, you must also have a management system available. This system must be running Windows (2008, Windows 7, etc.)

2.3.2 Windows host operating system

This document assumes that you have already installed Windows 2008 R2 with Service Pack 1 or later and have applied the latest critical security updates available through Windows Update.

2.3.3 Red Hat Enterprise Linux host operating system

This document assumes that you have already installed RHEL 6.5 or later and have applied the latest critical security updates available through Linux.

2.3.4 Switch

Reference the *EqualLogic Compatibility Matrix* at http://en.community.dell.com/dell-groups/dtcmedia/m/mediagallery/19856862/download.aspx to determine the recommended switch firmware version. To get the latest update, visit http://force10networks.com. Installation instructions are provided as part of the download. The switch user manual is also available to download for reference.

2.3.5 Array

Reference the *EqualLogic Compatibility Matrix* at http://en.community.dell.com/dell-groups/dtcmedia/m/mediagallery/19856862/download.aspx to determine the recommended array firmware version. To get the latest update, visit http://www.equallogic.com/support. Update instructions and release notes are available with the latest downloads.

2.4 Configuration information

Your iSCSI SAN configuration requires several static IP addresses. Complete this form and have it available for reference during the configuration.

Table 1 IP addresses needed for configuration:

Host iSCSI Initiator	**Host #1**	**Addition host**	**...**
Port 1			
Port 2			
Port 3			
Port 4			
Array Target	**Array #1**	**Additional array**	**...**
Port 1 (eth0)			
Port 2 (eth1)			
Management (Out-of-Band or eth2)			
Array Group Management IP (Out-of-Band)			
Array Group Management IP (In-Band)			
Switch Out-of-Band Management (OOB Mgmt) Port			

Switch Admin password: _____

Array Group Admin password: _____*

Array Membership password: _____*

*These may be the same password – see the PS-series Group Administration guide for more information.

3 Connectivity Diagrams

Use the appropriate diagram and corresponding point-to-point table when cabling the SAN.

Figure 1 Force10 S25N and PS4100

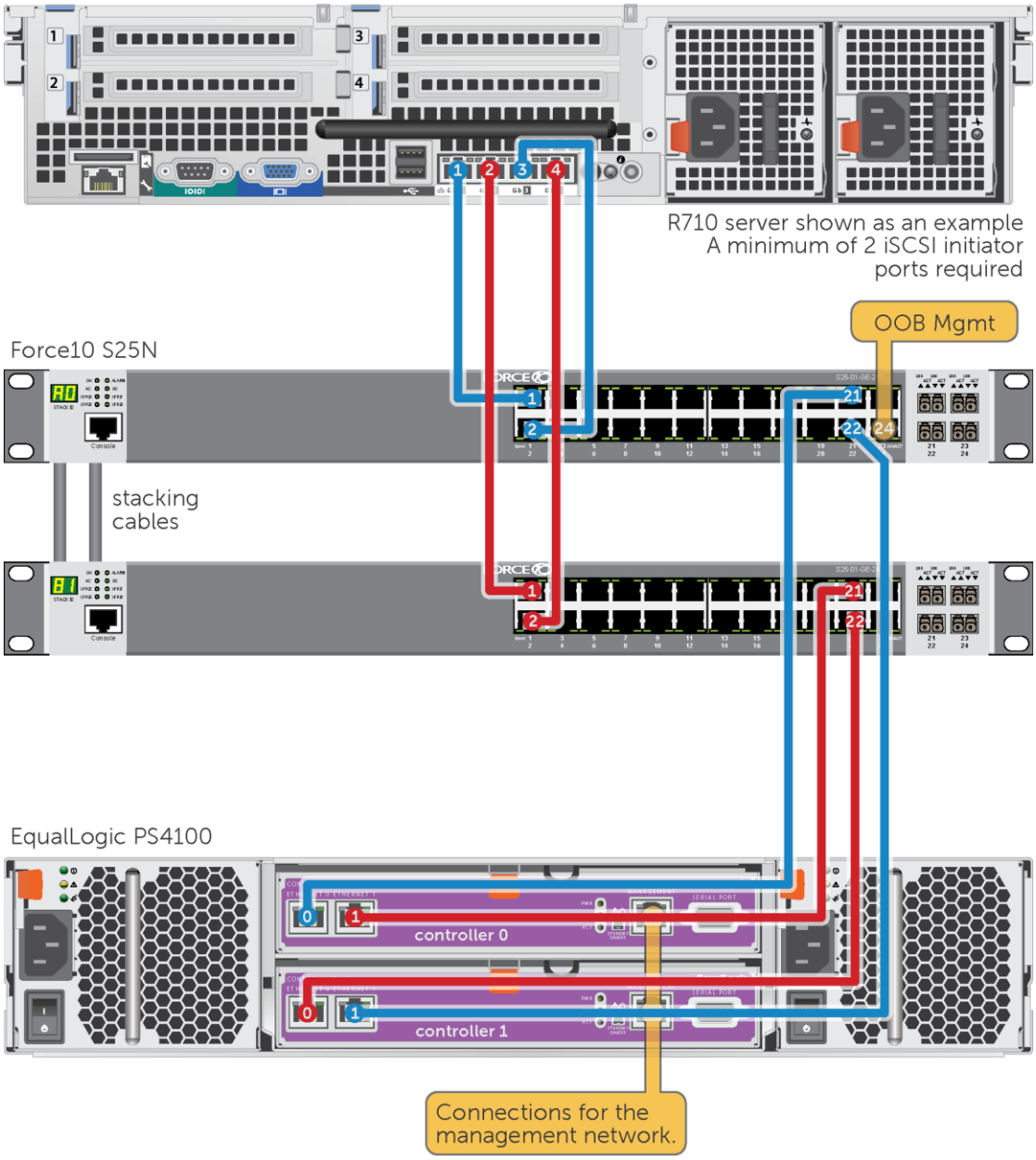


Figure 2 Force10 S50N and PS4100

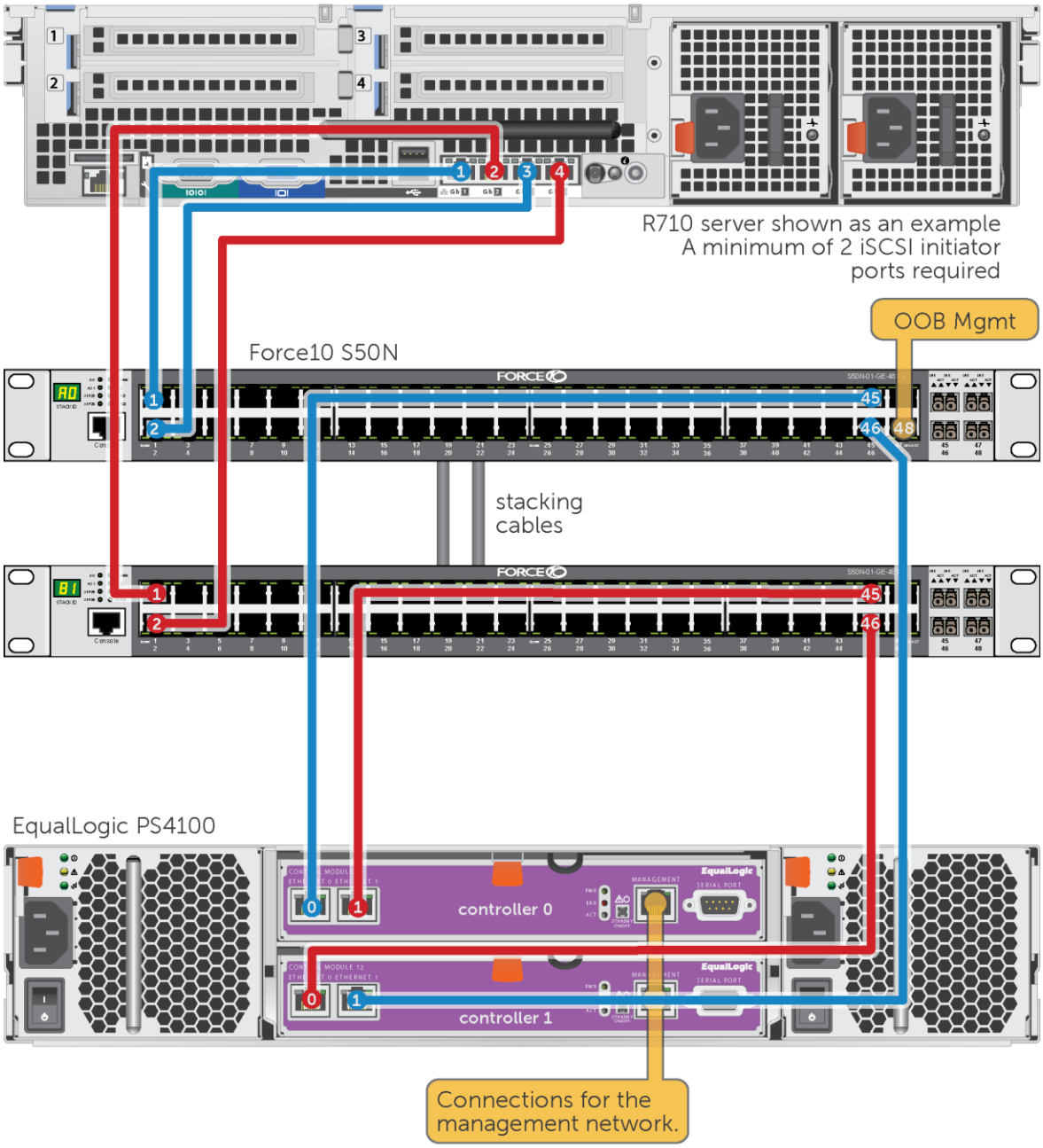


Figure 3 Force10 S25N and PS6100

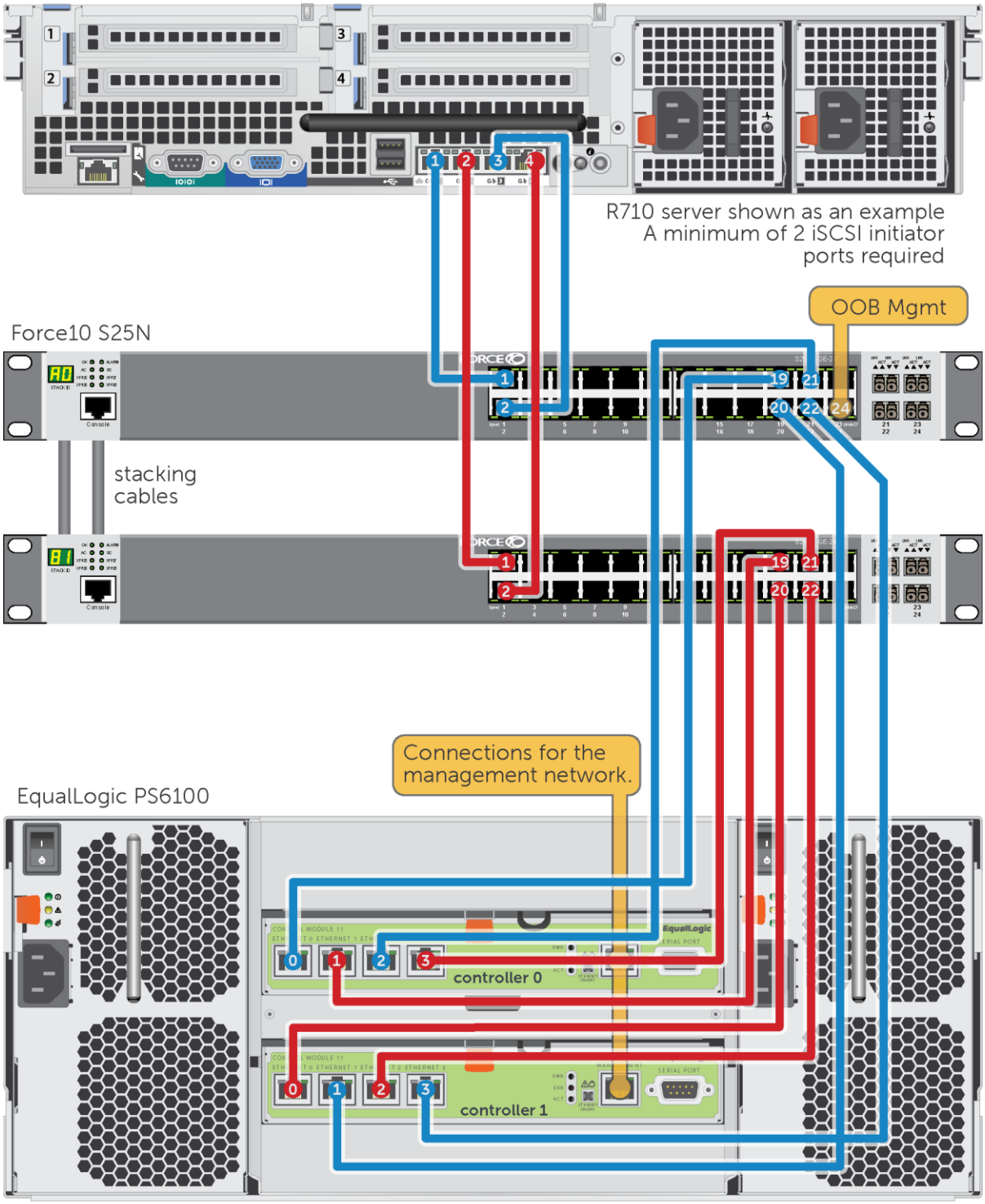


Figure 4 Force10 S25N and PS6100

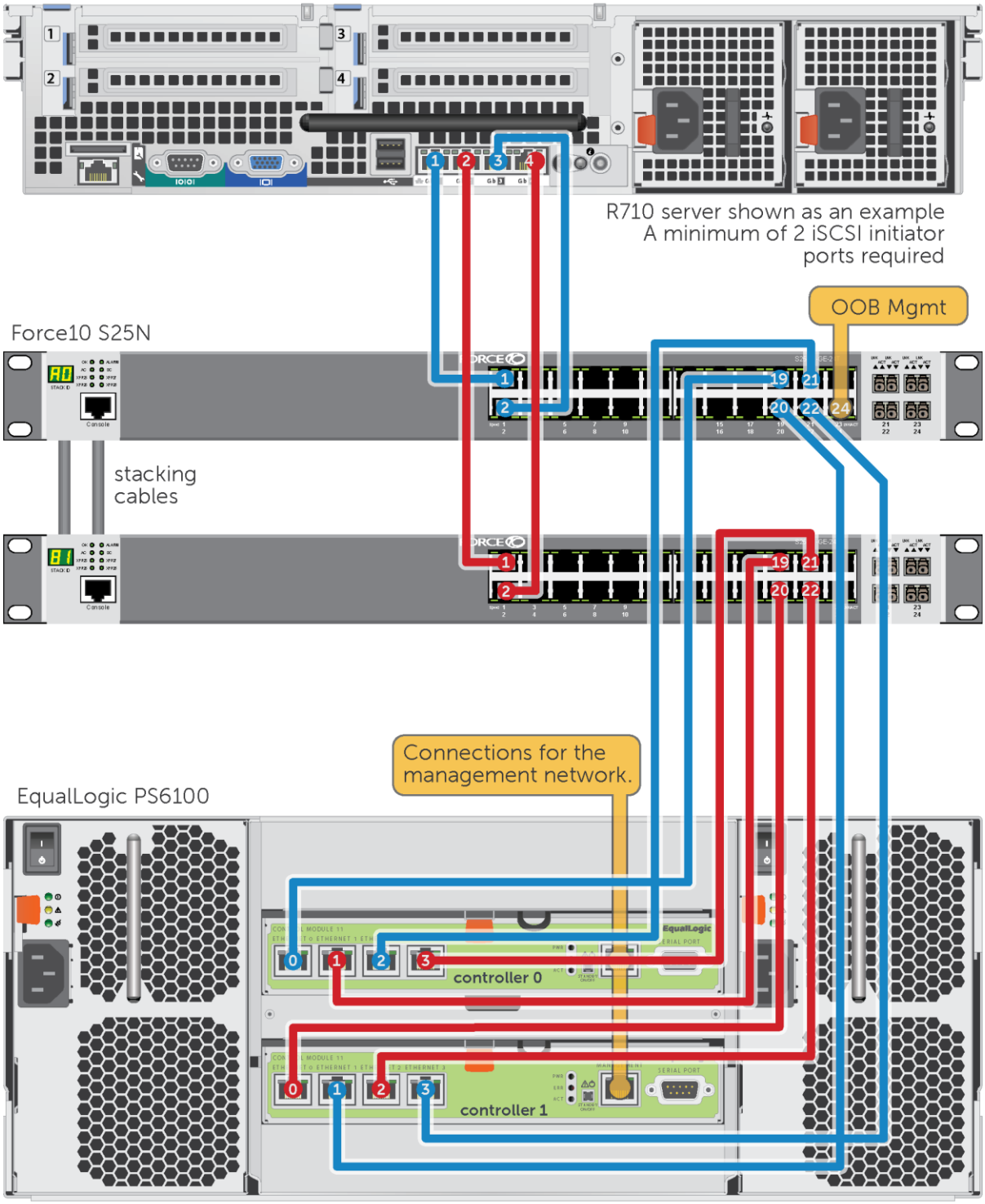


Figure 5 Force10 S50N and PS6100

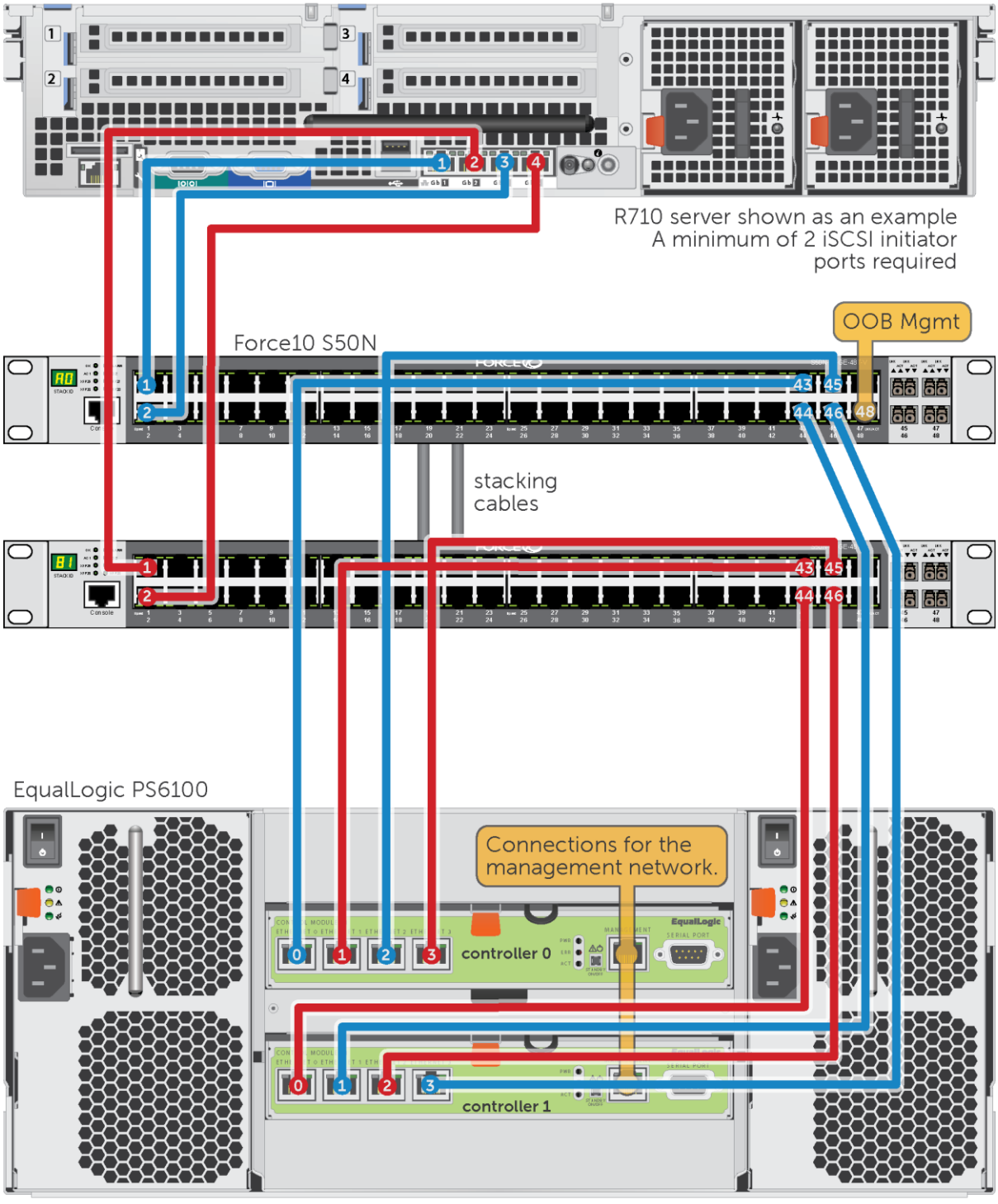


Figure 6 Force10 S25N and PS6500

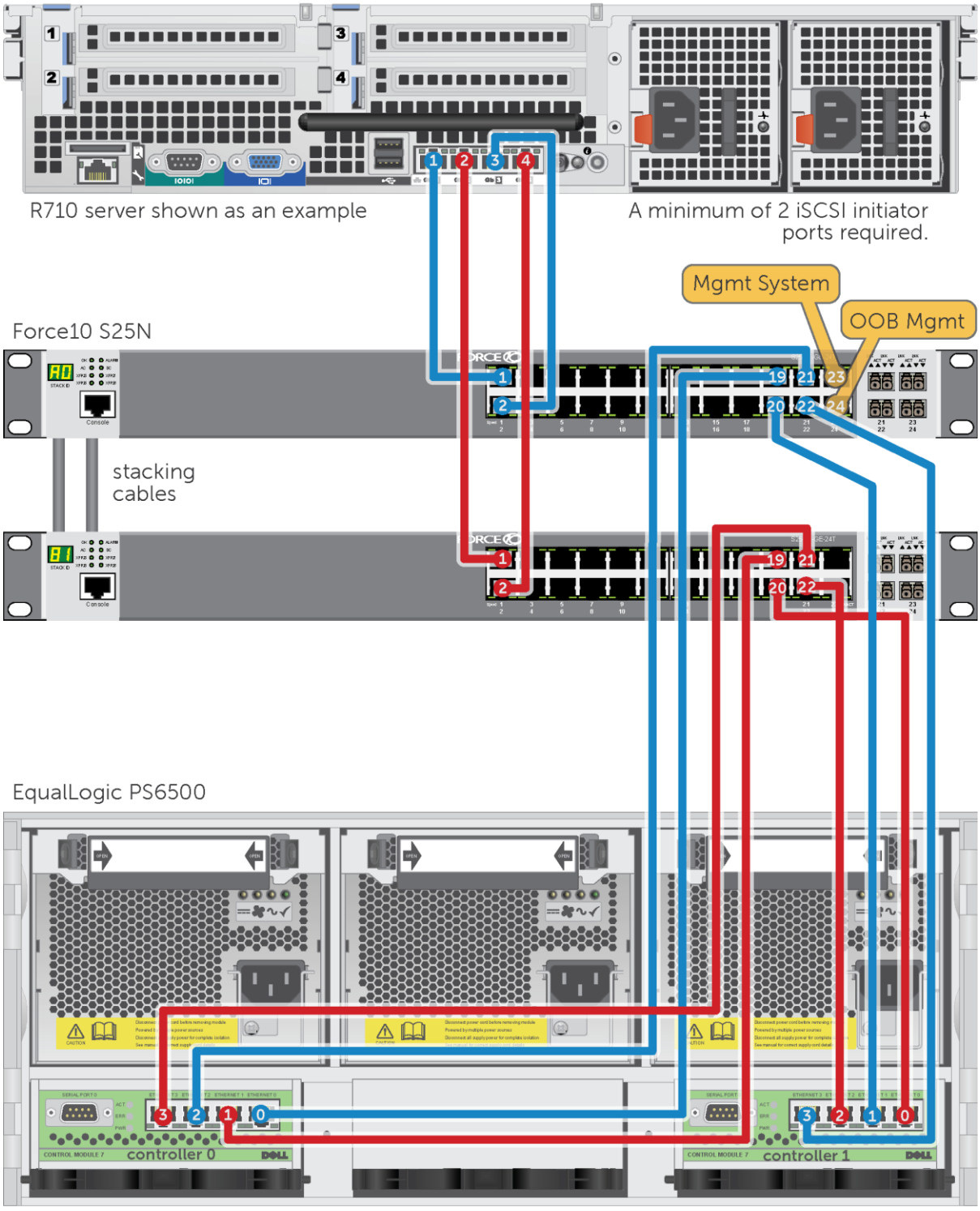
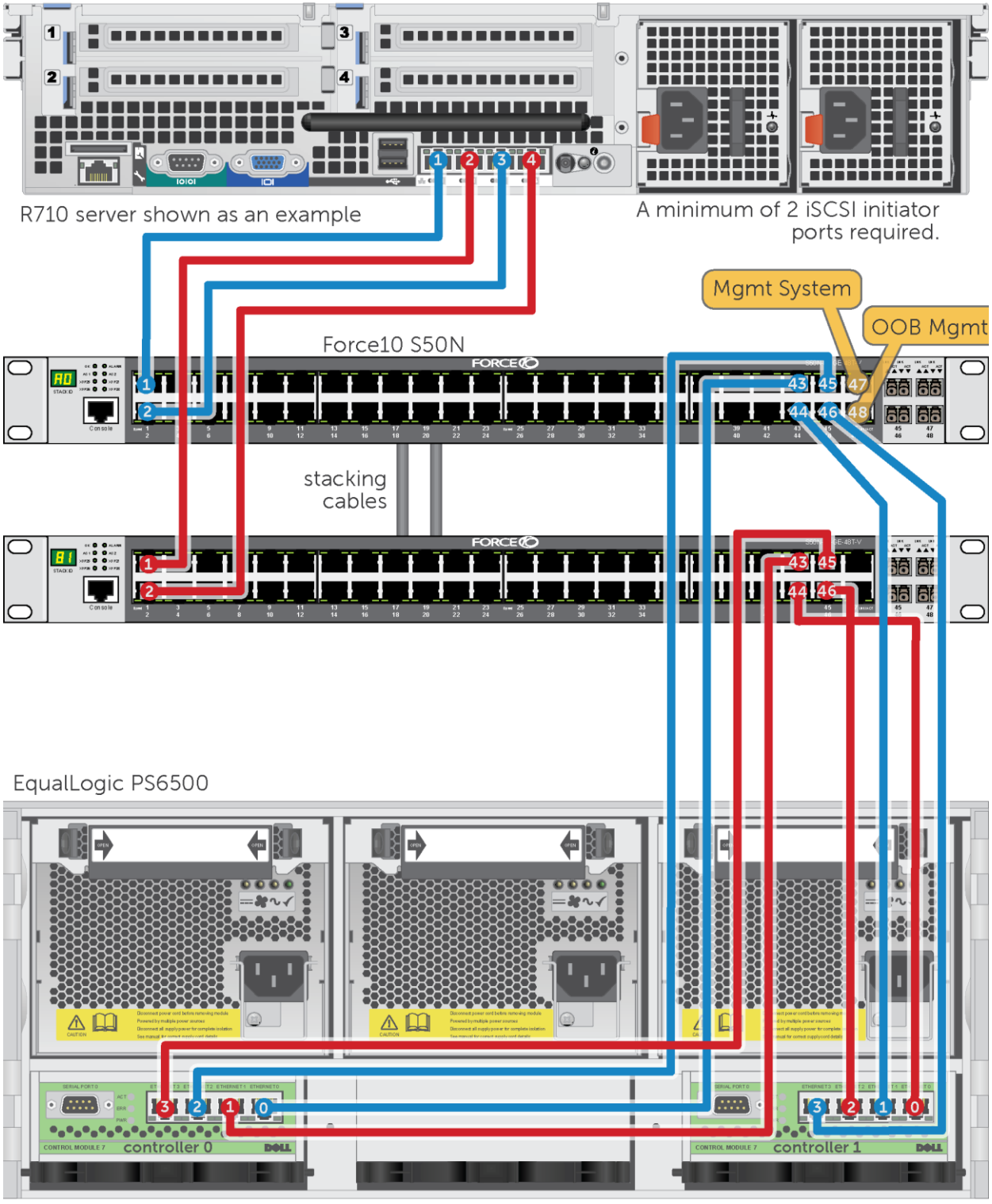


Figure 7 Force10 S50N and PS6500



3.1 Point-to-point connection tables

Note: Add servers and arrays to the configuration as needed using the same connection pattern.

Table 2 Force10 S25N and PS4100 point to point table

	Switch 1 Port	To		Switch 2 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	21	Controller 0, port 0		21	Controller 0, port 1
	22	Controller 1, port 1		22	Controller 1, port 0
	24	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.

Table 3 Force10 S50N and PS4100 point to point table

	Switch 1 Port	To		Switch 2 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	45	Controller 0, port 0		45	Controller 0, port 1
	46	Controller 1, port 1		46	Controller 1, port 0
	48	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.

Table 4 Force10 S25N and PS6100 point to point table

	Switch A0 Port	To		Switch B1 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	19	Controller 0, port 0		19	Controller 0, port 1
	20	Controller 1, port 1		20	Controller 1, port 0
	21	Controller 0, port 2		21	Controller 0, port 3
	22	Controller 1, port 3		22	Controller 1, port 2
	24	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.

Table 5 Force10 S50N and PS6100 point to point table

	Switch A0 Port	To		Switch B1 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	43	Controller 0, port 0		43	Controller 0, port 1
	44	Controller 1, port 1		44	Controller 1, port 0
	45	Controller 0, port 2		45	Controller 0, port 3
	46	Controller 1, port 3		46	Controller 1, port 2
	48	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.

Table 6 Force10 S25N and PS6500 point to point table

	Switch 1 Port	To		Switch 2 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	19	Controller 0, port 0		19	Controller 0, port 1
	20	Controller 1, port 1		20	Controller 1, port 0
	21	Controller 0, port 2		21	Controller 0, port 3
	22	Controller 1, port 3		22	Controller 1, port 2
	23	Mgmt System			
	24	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.

Table 7 Force10 S50N and PS6500 point to point table

	Switch 1 Port	To		Switch 2 Port	To
	1	Server 1, port 1		1	Server 1, port 2
	2	Server 1, port 3*		2	Server 1, port 4*
Array 1	43	Controller 0, port 0		43	Controller 0, port 1
	44	Controller 1, port 1		44	Controller 1, port 0
	45	Controller 0, port 2		45	Controller 0, port 3
	46	Controller 1, port 3		46	Controller 1, port 2
	47	Mgmt System			
	48	OOB Mgmt			

* Use of the 3rd and 4th host ports is optional. At least two ports are required.