



Planning and Preparation Guide

Rapid EqualLogic Configuration Series

Switch: Dell Force10 S55

Array: PS4100, PS6100, or PS6500

Host: VMware ESXi, Windows or Red Hat Enterprise Linux

April 2014



SIFeedback@Dell.com

Revisions

Date	Description
July 2012	Initial release
March 2013	Combined all Force10 S55 Introduction documents into one
April 2014	Added RHEL configuration information

THIS WHITE PAPER IS FOR INFORMATIONAL PURPOSES ONLY, AND MAY CONTAIN TYPOGRAPHICAL ERRORS AND TECHNICAL INACCURACIES. THE CONTENT IS PROVIDED AS IS, WITHOUT EXPRESS OR IMPLIED WARRANTIES OF ANY KIND.

© 2013 Dell Inc. All rights reserved. Reproduction of this material in any manner whatsoever without the express written permission of Dell Inc. is strictly forbidden. For more information, contact Dell.

Dell, the DELL logo, the DELL badge, EqualLogic, Dell Networking and Force10 are trademarks of Dell Inc. VMware®, ESXi® and vSphere® are registered trademarks or trademarks of VMware, Inc. in the United States or other countries. Red Hat® and Red Hat® Enterprise Linux® are registered trademarks of Red Hat, Inc. in the United States and/or other countries. Windows® and Windows Server® are registered trademarks of Microsoft Corporation in the United States and/or other countries. Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell disclaims any proprietary interest in the marks and names of others.



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 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 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	Additional 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 point-to-point table when cabling the SAN.

Figure 1 Force10 S55 and the EqualLogic PS4100

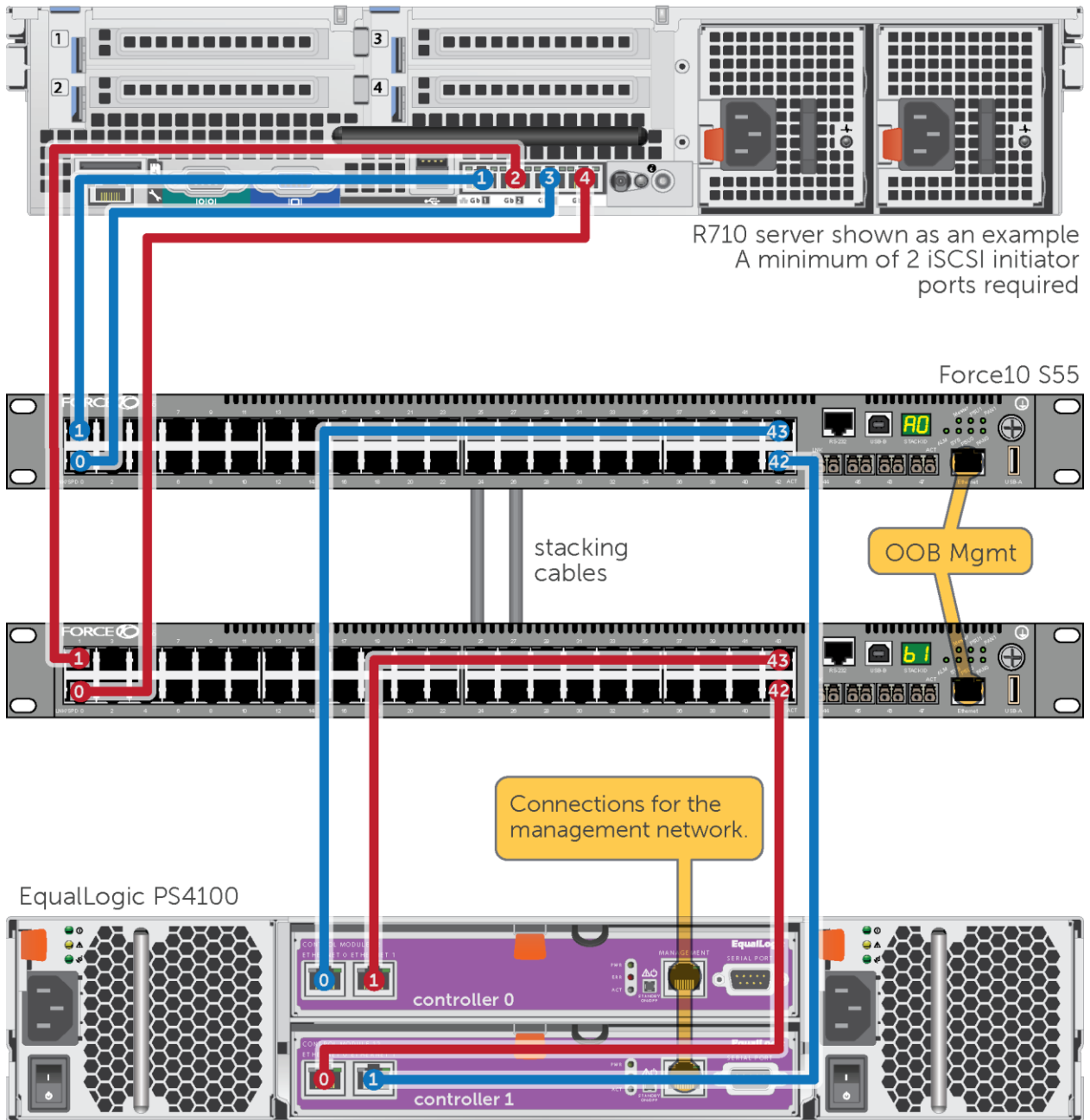


Figure 2 Force10 S55 and the EqualLogic PS6100

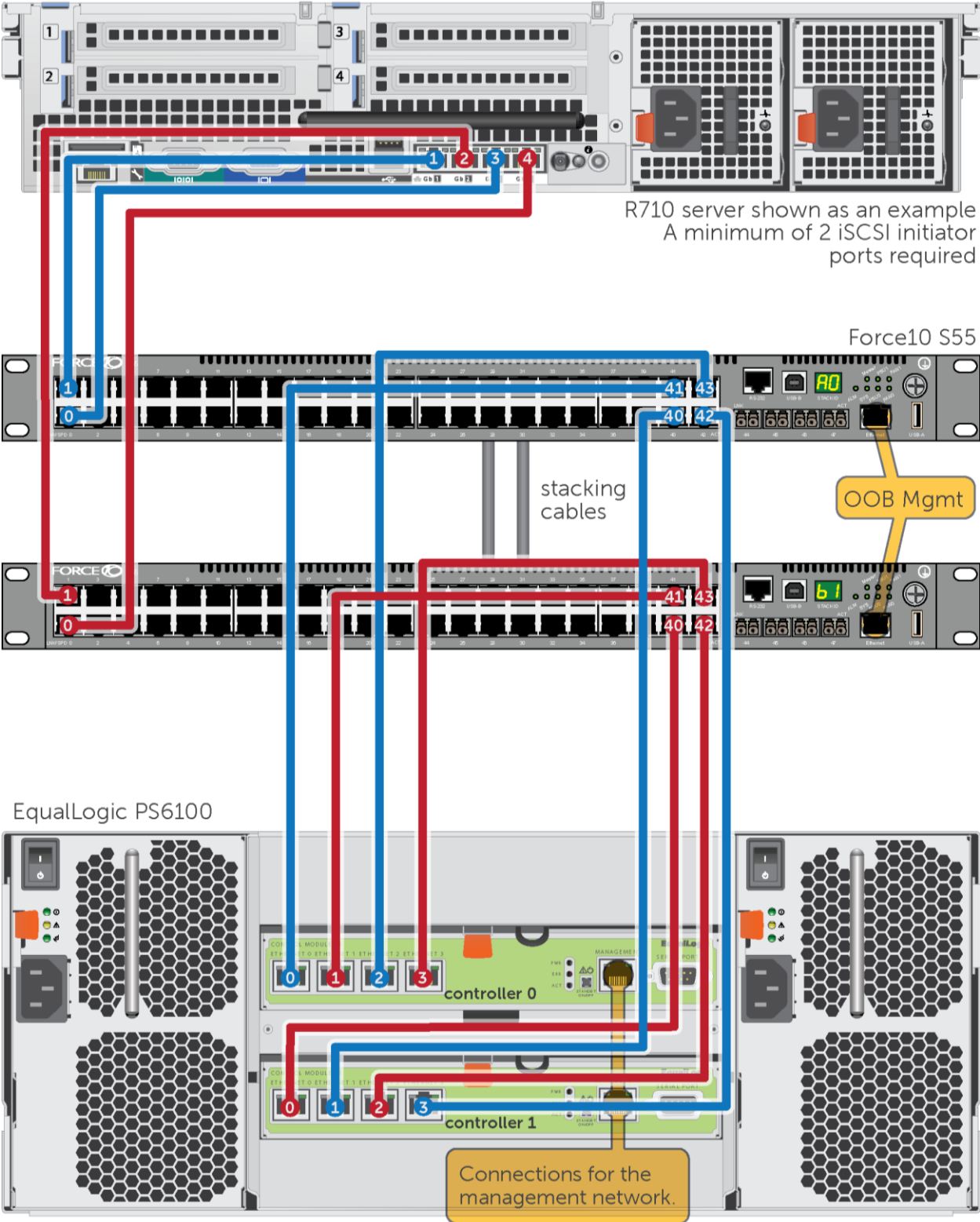
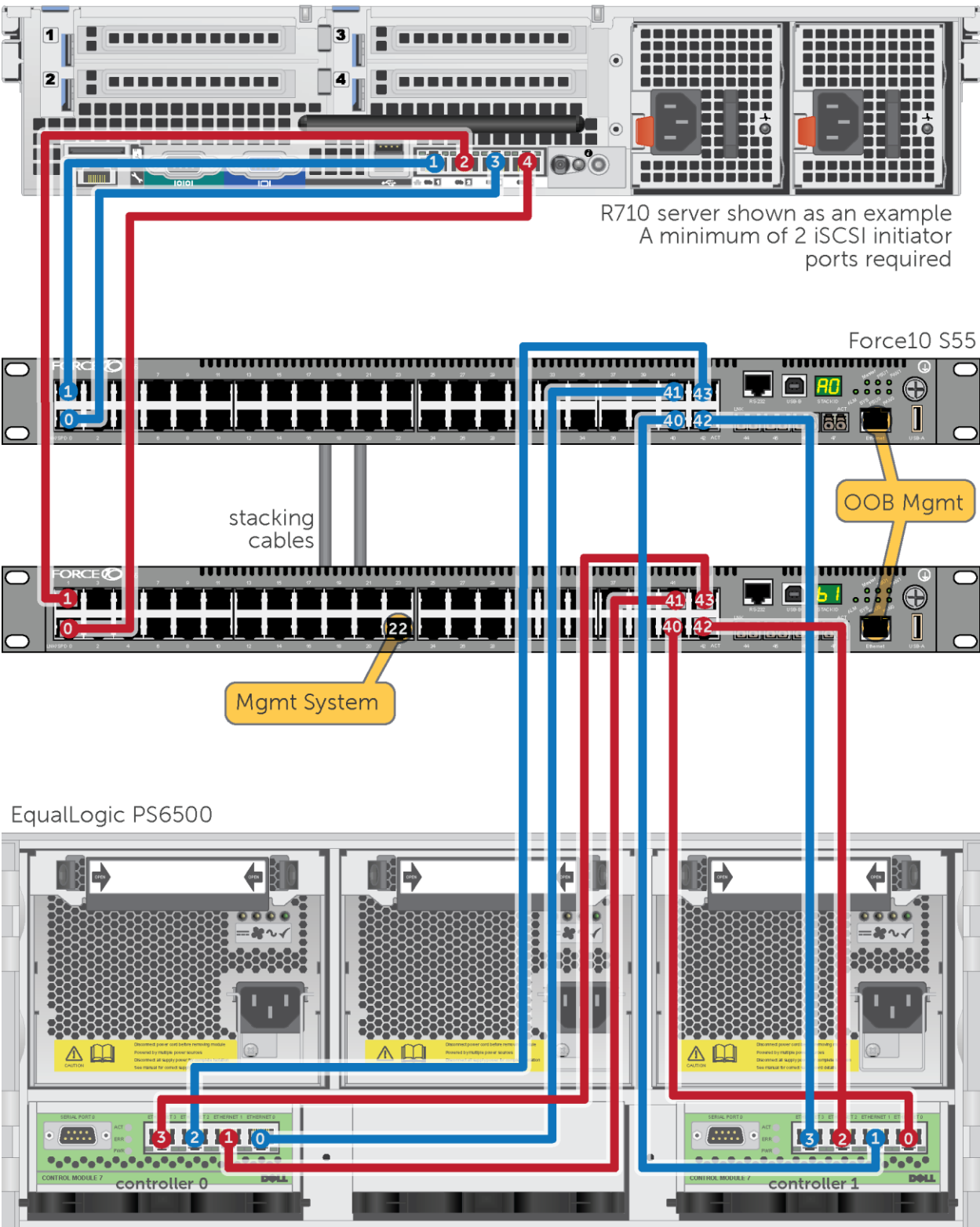


Figure 3 Force10 S55 and the EqualLogic PS6500



3.1 Point to point connection tables

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

Table 2 Force10 S55 connections with the EqualLogic PS4100

	Switch A0 Port	To		Switch B1 Port	To
	0	Server 1, port 3*		0	Server 1, port 4*
	1	Server 1, port 1		1	Server 1, port 2
Array 1	42	Controller 1, port 1		42	Controller 1, port 0
	43	Controller 0, port 0		43	Controller 0, port 1

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

Table 3 Force10 S55 connections with the EqualLogic PS6100

	Switch A0 Port	To		Switch B1 Port	To
	0	Server 1, port 3*		0	Server 1, port 4*
	1	Server 1, port 1		1	Server 1, port 2
Array 1	40	Controller 1, port 1		40	Controller 1, port 0
	41	Controller 0, port 0		41	Controller 0, port 1
	42	Controller 1, port 3		42	Controller 1, port 2
	43	Controller 0, port 2		43	Controller 0, port 3

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



Table 4 Force10 S55 connections with the EqualLogic PS6500

	Switch A0 Port	To		Switch B1 Port	To
	0	Server 1, port 3*		0	Server 1, port 4*
	1	Server 1, port 1		1	Server 1, port 2
				22	Mgmt System
Array 1	40	Controller 1, port 1		40	Controller 1, port 0
	41	Controller 0, port 0		41	Controller 0, port 1
	42	Controller 1, port 3		42	Controller 1, port 2
	43	Controller 0, port 2		43	Controller 0, port 3

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

