Planning and Preparation Guide

Rapid EqualLogic Configuration Series
Switch: PowerConnect 8024 or 8024F
Array: PS4110, PS6110, PS6010 or PS6510
Host: Windows, VMware ESXi or Red Hat Enterprise Linux

May 2014

Revisions

Date	Description
May 2012	initial release
August 2012	Added 8024 configuration diagrams
April 2013	Combined all PowerConnect 8024 & 8024F Introductions into one document
May 2014	Added RHEL configuration information

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 RHEL® 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

2.1.1.1 Serial cable

- 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 4.1 Update 1 or later 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://support.dell.com. Installation instructions are provided as part of the download. The switch user manual can also be downloaded 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			
Array Target	Array #1	Additional array	...
Port 1 (eth0)			
Management (Out-of-Band/eth1)			
Array Group Management IP (Out-of-Band)			
Array Group Management IP (In-Band)			
Out-of-Band Switch Management Port			

Switch admin password: _____

Array Group admin password: _____*

Array Group 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   PowerConnect 8024 or 8024F and EqualLogic PS4110 or PS6110 configuration
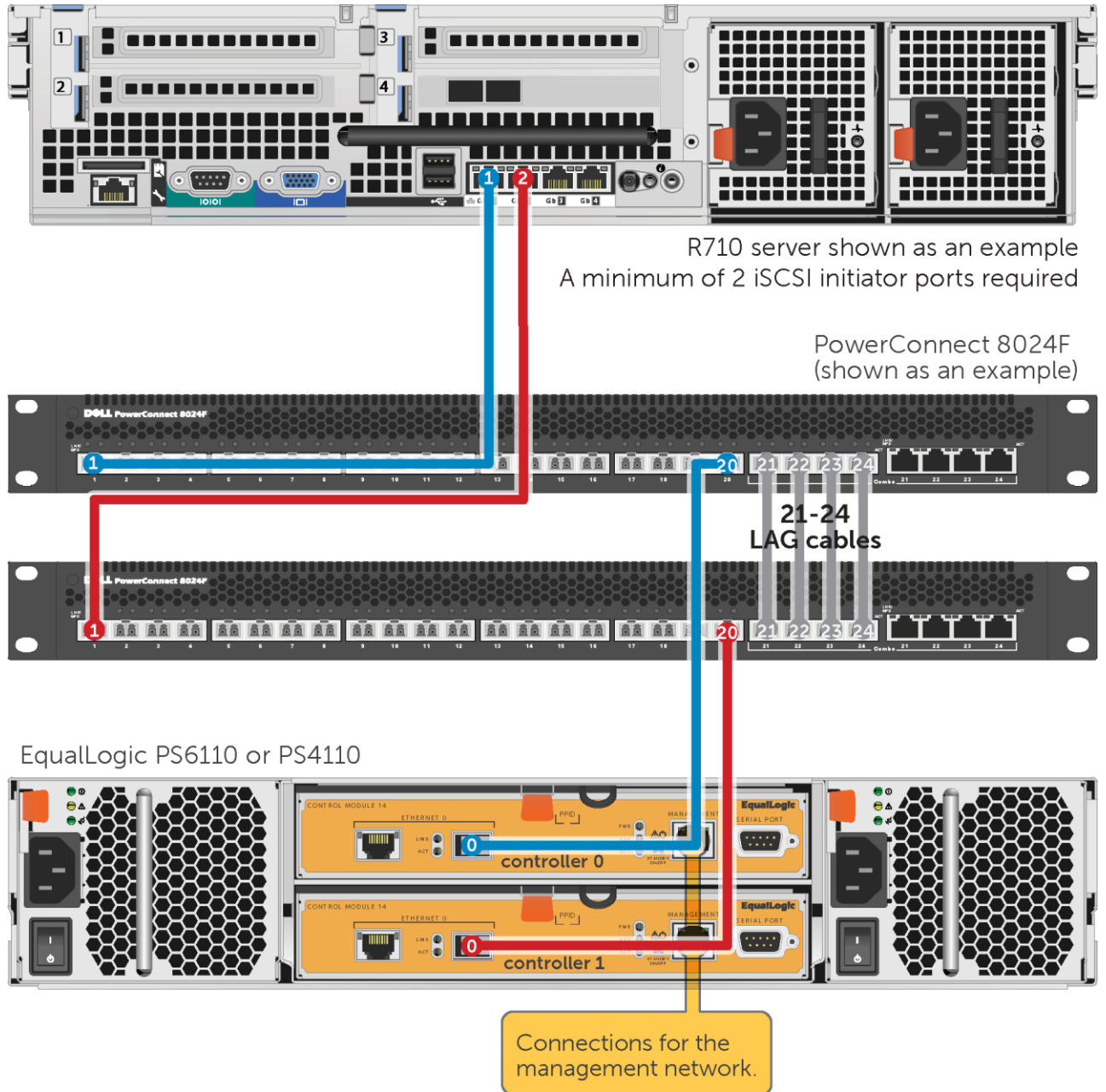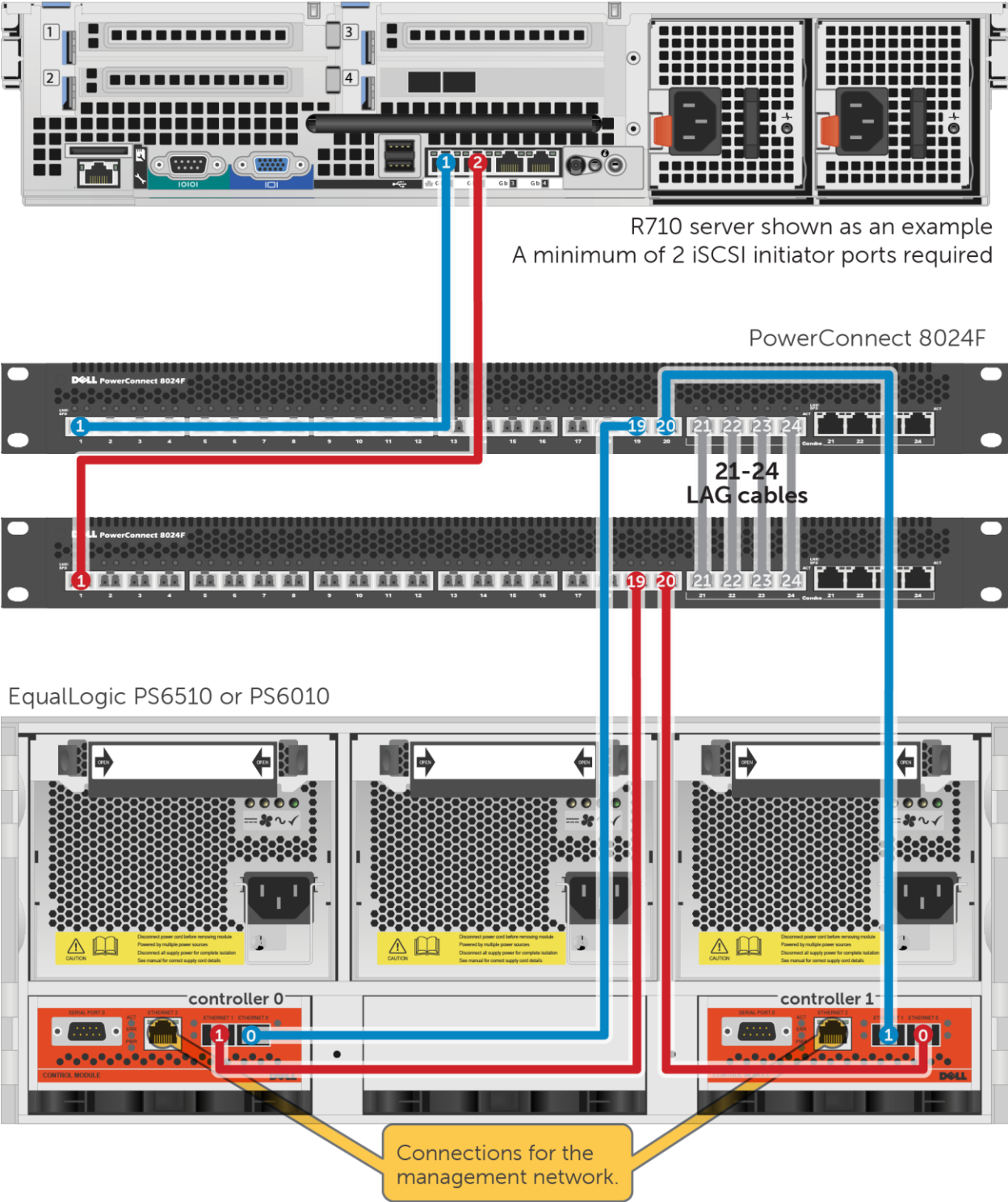

R710 server shown as an example
A minimum of 2 iSCSI initiator ports required

PowerConnect 8024F
(shown as an example)

21-24
LAG cables

EqualLogic PS6110 or PS4110

controller 0

controller 1

Connections for the
management network.

Figure 2   PowerConnect 8024F and EqualLogic PS6010 or PS6510 configuration

R710 server shown as an example
A minimum of 2 iSCSI initiator ports required

PowerConnect 8024F

21-24
LAG cables

EqualLogic PS6510 or PS6010

controller 0

controller 1

Connections for the
management network.

3.1   Point-to-point tables

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

Table 2   PowerConnect 8024 or 8024F point-to-point connections with the PS4110 or PS6110:

Switch 1 Port	To		Switch 2 Port	To
1	Server 1, port 1		1	Server 1, port 2
Array 1 20	Controller 0, port 0		20	Controller 1, port 0

Table 3   PowerConnect 8024F point-to-point connections with the PS6010 or PS6510

Switch 1 Port	To		Switch 2 Port	To
1	Server 1, port 1		1	Server 1, port 2
Array 1 19	Controller 0, port 0		19	Controller 0, port 1
20	Controller 1, port 1		20	Controller 1, port 0