Arista 7280SR

Switch Configuration Guide for Dell PS Series SANs

Dell Storage Engineering
September 2016

A Dell Deployment and Configuration Guide

Revisions

Date	Description
September 2016	Initial release

Table of contents

1 Introduction

This document illustrates how to configure the Arista 7280SR switch for use with Dell™ PS Series storage while using Dell best practices. The recommended configuration uses Dynamic Link Aggregation Groups (LAGs) for inter-switch connections.

This document may be used independently or as part of the Dell Rapid EqualLogic (PS Series) Configuration portal, which is a collection of documents intended to assist users in deploying Dell PS Series iSCSI SAN solutions: http://en.community.Dell.com/techcenter/storage/w/wiki/3615.rapid-equallogic-configuration-portal-by-sis.aspx.

For more information on PS Series SAN design recommendations, see the PS Series *Configuration Guide* at: www.Delltechcenter.com/page/equallogic+configuration+guide.

1.1 Document conventions

Table 1 lists the formatting conventions used in this document.

Table 1 Document conventions

Format	Description	Example
Bold	User input	Dell>**enable**
Italic	Placeholder or variable	*your password*
<Italic> <brackets>	Separate variables	*<ip address> <mask>*

1.2 Audience

This switch configuration guide describes an optimal configuration following Dell best practices for a PS Series iSCSI SAN and is intended for storage or network administrators and deployment personnel.

1.3 Switch details

Table 2 provides an overview of the switch configuration.

Table 2 Switch specifications

Arista 7280SR	
Switch vendor	Arista
Switch model	7280SR
Switch firmware	4.16.7FX-7500R

Note: For proper functionality, the switch must be at the switch firmware version shown in Table 2 before proceeding with this configuration. Using previous firmware versions may have unpredictable results.

The latest firmware updates and documentation can be found at: arista.com. This site requires a login.

1.4 Cabling diagram

The cabling diagram shown below represents the Dell recommended method for deploying your servers and PS Series arrays.

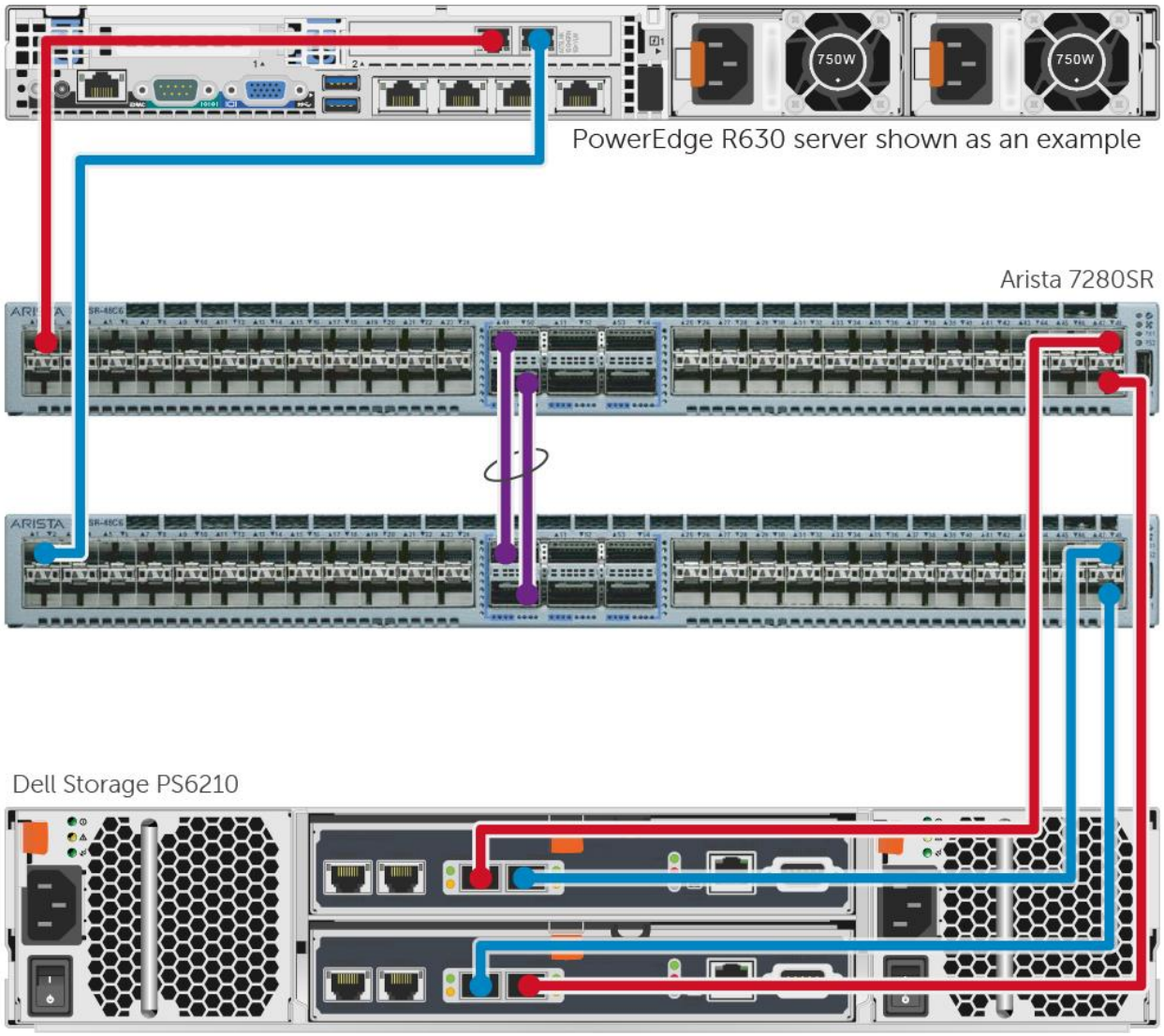

Figure 1 Cabling diagram

2 Dell recommended switch configuration

These steps show you how to configure two Arista 7280SR switches with a Link Aggregation Group (LAG). The switches are interconnected using two of the 100GbE Quad Small Form-factor Pluggable (QSFP28) uplink ports, and the LAG is configured for Dynamic Link Aggregation Control Protocol (LACP).

2.1 Hardware configuration

Power on the two switches.

Connect a serial cable to the serial port of the first switch.

Using PuTTY or another terminal utility, open a serial connection session to the switch.

Open your terminal emulator and configure it to use the serial port (usually COM1 but this may vary depending on your system). Configure serial communications for 9600,N,8,1 and no flow control.

Connect the (QSFP28) LAG cables between the switches by connecting port 49 on switch 1 to port 49 on switch 2. Connect port 50 on switch 1 to port 50 on switch 2. See this configuration in Figure 1.

2.2 Delete startup configuration

Note: The following commands will delete all configuration settings.

```
localhost>enable
localhost#delete startup-config
localhost#reload
System configuration has been modified. Save? [yes/no/cancel/diff]:no
Proceed with reload? [confirm]
```

Note: The switch will reboot.

2.3 Cancel ZeroTouch

The following message will appear when the switch has completed the reload process:

```
No startup-config was found.
The device is in Zero Touch Provisioning mode and is attempting to download the
startup-config from a remote system.  The device will not be fully functional
until either a valid startup-config is downloaded
from a remote system or Zero Touch Provisioning is cancelled.
To cancel Zero Touch Provisioning, login as admin and type 'zerotouch cancel' at
the CLI.
```

Alternatively, to disable Zero Touch Provisioning permanently, type 'zerotouch disable' at the CLI.

Note: The device will reload when these commands are issued.

```
localhost login: admin
localhost>zerotouch cancel
```

Note: The switch will automatically reboot

```
localhost login: admin
localhost>enable
```

2.4 Configure out of band (OOB) management port

```
localhost#configure
localhost(config)#interface management 1
localhost(config-if-Ma1)#ip address <ip address/mask>
localhost(config-if-Ma1)#exit
```

2.5 Configure login credentials

```
localhost(config)#username admin privilege 15 secret yourpassword
```

2.6 Enable Jumbo Frames

```
localhost(config)#interface ethernet 1 - 48
localhost(config-if-Et1-48)#mtu 9214
```

2.7 Configure flow control

```
localhost(config-if-Et1-48)#flowcontrol receive on
```

2.8 Configure portfast and spanning tree (RSTP)

```
localhost(config-if-Et1-48)#spanning-tree portfast
localhost(config-if-Et1-48)#exit
localhost(config)#spanning-tree mode rstp
```

2.9 Configure Dynamic Link Aggregation using LACP

```
localhost(config)#interface Port-channel 200
localhost(config-if-Po200)#mtu 9214
localhost(config-if-Po200)#exit
```

2.10 Configure QSFP28 ports for LAG

These commands assign two 100GbE QSFP28 ports to the Port-Channel

```
localhost(config)#interface ethernet 49/1 , 50/1
localhost(config-if-Et49/1,50/1)#mtu 9214
localhost(config-if-Et49/1,50/1)#flowcontrol receive on
localhost(config-if-Et49/1,50/1)#channel-group 200 mode active
localhost(config-if-Et49/1,50/1)#end
localhost#
```

2.11 Save configuration

```
localhost#copy running-config startup-config
```

2.12 Configure additional switch

Repeat the commands from sections 2.2–2.11 to configure the second switch.

Note: The preceding procedure places all switch ports in the default VLAN. If you prefer to place ports in a non-default VLAN, refer to the documentation for your switch.

Additional resources

Support.Dell.com is focused on meeting your needs with proven services and support.

DellTechCenter.com is an IT Community where you can connect with Dell Customers and Dell employees for the purpose of sharing knowledge, best practices, and information about Dell products and your installations.

Referenced or recommended Dell publications:

- Dell PS Series *Configuration Guide*: http://en.community.dell.com/dell-groups/dtcmedia/m/mediagallery/19852516
- *Dell Storage Compatibility Matrix:* http://en.community.dell.com/dell-groups/dtcmedia/m/mediagallery/20438558
- For PS Series best practices white papers, reference architectures, and sizing guidelines for enterprise applications and SANs, refer to: http://en.community.dell.com/techcenter/storage/w/wiki/2660.ps-series-technical-documents