Arista 7050SX-96-F

Switch Configuration Guide for Dell PS Series SANs

Dell Storage Engineering
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A Dell Deployment and Configuration Guide

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1 Introduction

This document illustrates how to configure the Arista® 7050SX-96-F switch for use with Dell™ PS Series storage 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: http://en.community.dell.com/techcenter/storage/w/wiki/2639.ps-series-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 7050SX-96-F	
Switch vendor	Arista
Switch model	7050SX-96-F
Switch firmware	4.17.0F-3304146.4170F

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 in Figure 1 represents the Dell recommended method for deploying servers and PS Series arrays.

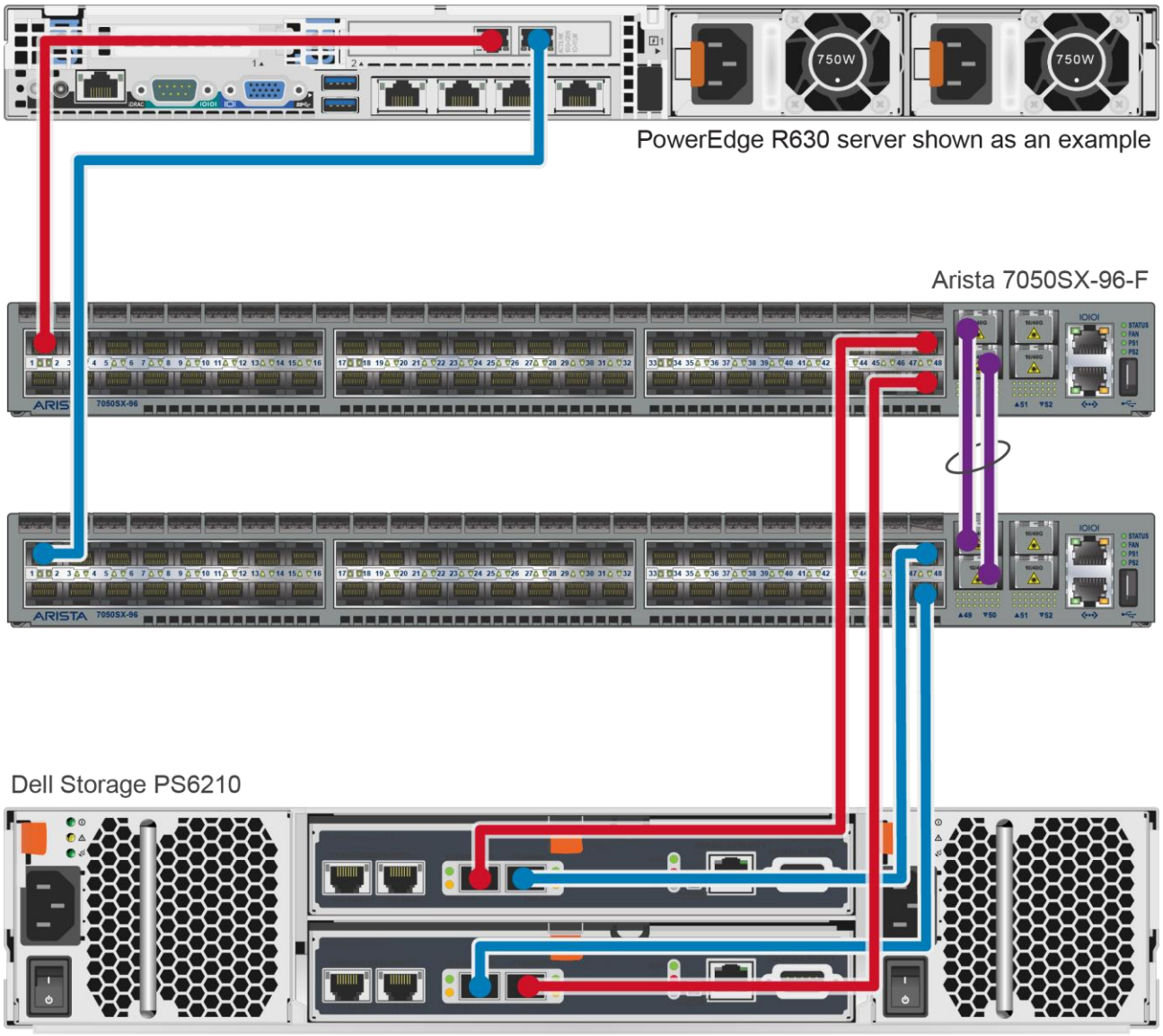

Figure 1 Cabling diagram

2 Dell recommended switch configuration

These steps show how to configure two Arista 7050SX-96-F switches with a LAG. The switches are interconnected using two of the MXP uplink ports, and the LAG is configured for Dynamic Link Aggregation Control Protocol (LACP).

Note: The MXP ports are in their default 3 x 40GbE mode.

2.1 Hardware configuration

1. Power on the two switches.
2. Connect a serial cable to the serial port of the first switch.
3. Using PuTTY or another terminal utility, open a serial connection session to the switch.
4. 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.
5. Connect the MTP-24 compliant 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 Zero Touch Provisioning

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 login: admin
localhost>enable

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 Configure queue buffer management

```
localhost(config)#platform trident mmu queue profile my_profile
localhost(config-queue-my_profile)#egress unicast queue 1 threshold 4
localhost(config-queue-my_profile)#exit
localhost(config)#platform trident mmu queue profile my_profile apply
```

2.7 Enable Jumbo Frames

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

2.8 Configure flow control

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

Note: Do not enable send (Tx) flow control on any port.

2.9 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
```

2.10 Configure the Port-Channel

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

2.11 Configure MXP ports for Dynamic Link Aggregation using LACP

Note: For this example, the MXP ports are in the default 3 x 40GbE mode. These commands assign MXP ports (49 and 50) to the Port-Channel.

```
localhost(config)#interface ethernet 49/1 , 49/5 , 49/9
localhost(config-if-Et49/1,49/5,49/9)#mtu 9214
localhost(config-if-Et49/1,49/5,49/9)#flowcontrol receive on
localhost(config-if-Et49/1,49/5,49/9)#channel-group 200 mode active
localhost(config-if-Et49/1,49/5,49/9)#exit

localhost(config)# interface ethernet 50/1 , 50/5 , 50/9
localhost(config-if-Et50/1,50/5,50/9)#mtu 9214
localhost(config-if-Et50/1,50/5,50/9)#flowcontrol receive on
localhost(config-if-Et50/1,50/5,50/9)#channel-group 200 mode active
localhost(config-if-Et50/1,50/5,50/9)#end
```

2.12 Save configuration

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

2.13 Reload Switch

```
localhost#reload

Proceed with reload? [confirm]
```

Note: The switch will reboot.

2.14 Configure additional switch

Repeat the commands from sections 2.2–2.13 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.

A Additional resources

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

Dell TechCenter 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.

Storage Solutions Technical Documents on Dell TechCenter provide expertise that helps to ensure customer success on Dell Storage platforms.

Referenced or recommended Dell publications:

- *PS Series Configuration Guide*
- *Dell Storage Compatibility Matrix*
- PS Series Technical Documents