APPENDIX C

TROUBLESHOOTING

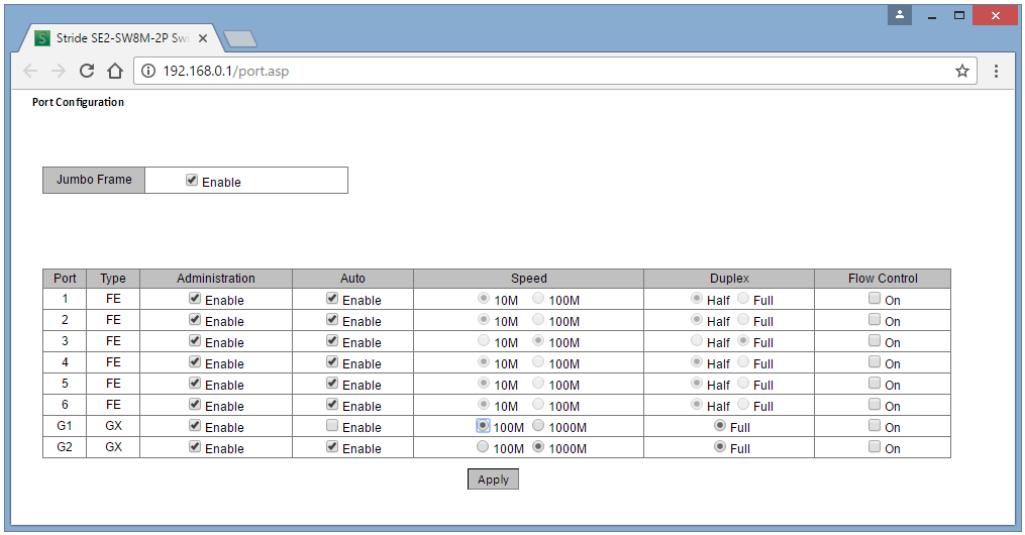
In this Appendix...

Troubleshooting Fiber Connections C-2
Troubleshooting AD-Ring C-4
Troubleshooting VLANs C-7
Installing Switch Firmware C-8

Troubleshooting Fiber Connections

1. If you are using a 100Mbps SFP in a Stride switch, you must manually change the port speed on the Port Configuration page of the Switch Setup interface. Note that if matching100Mbps SFPs are installed and connected by a proper mode-type patch cable but the Port Configuration has not been changed from the default 1000Mbps (Gigabit speed), the Port Status and RSTP Port Status pages will not indicate the port speed mismatch. That is, the browser interface will not alert the user to this speed mismatch.

- Verify the type of SFP. In the configuration shown below, port G1 is a 100Mbps SFP.
- Verify the port number.
- Verify the Port Speed Setting on the Basic Configuration - Port Configuration page.



2. Make sure that the speeds of both ends of a link match: a 100Mbps SFP on one switch must connect to a 100Mbps connection on the other switch or end device. Fiber ports do not negotiate speed.

3. Ensure that the cable type you are using matches the transceiver type. That is, Multimode cable requires Multimode transceivers, and Single-mode cable requires Single-mode transceivers.

4. Additionally, it is important that 62.5um is used with 62.5um and 50um used with 50um. If the fiber cores are not aligned correctly significant attenuation will occur.

5. Make sure that all of your connectors are clean. Even a little bit of dust, dirt or grease on a connector face can significantly degrade a fiber signal. This includes the main fiber optic link as well as any patch cables that you may be using. When cleaning, it is important to use lint free swabs or wipes, preferably of a clean room quality. These can be used dry or wet (with 99% isopropyl alcohol solutions).

- Make certain that you are not cleaning an active fiber, as the laser can cause permanent damage to your eyes should you look into the end face.
- Additionally, it is not necessary to scrub the end face, rather to just gently wipe it clean and then double-check the link. If additional cleaning is required simply repeat this process.

6. Make sure that all connectors are plugged completely into their proper ports. Again, if end faces are not lined up correctly with transceivers and/or mated fiber ends, the system may fail due to excess attenuation.

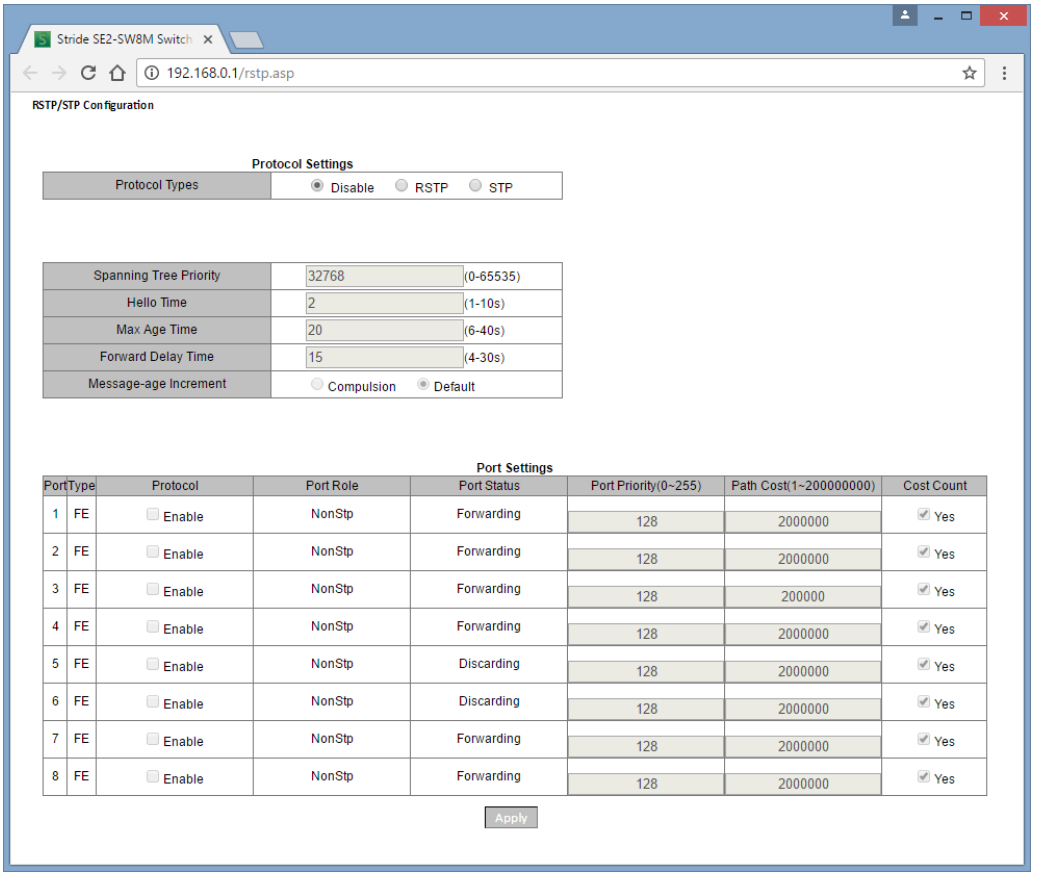
7. Make sure that the transmit cable at the near end is the receive cable at the far end. There needs to be a crossover for a fiber link to work correctly. Be sure to factor in all patch cord that may be used.

NOTE: *The physical connectors on the ends of a fiber cable do NOT need to match: a link may use an LC connector on one end and an SC connector on the other.*

Troubleshooting AD-Ring

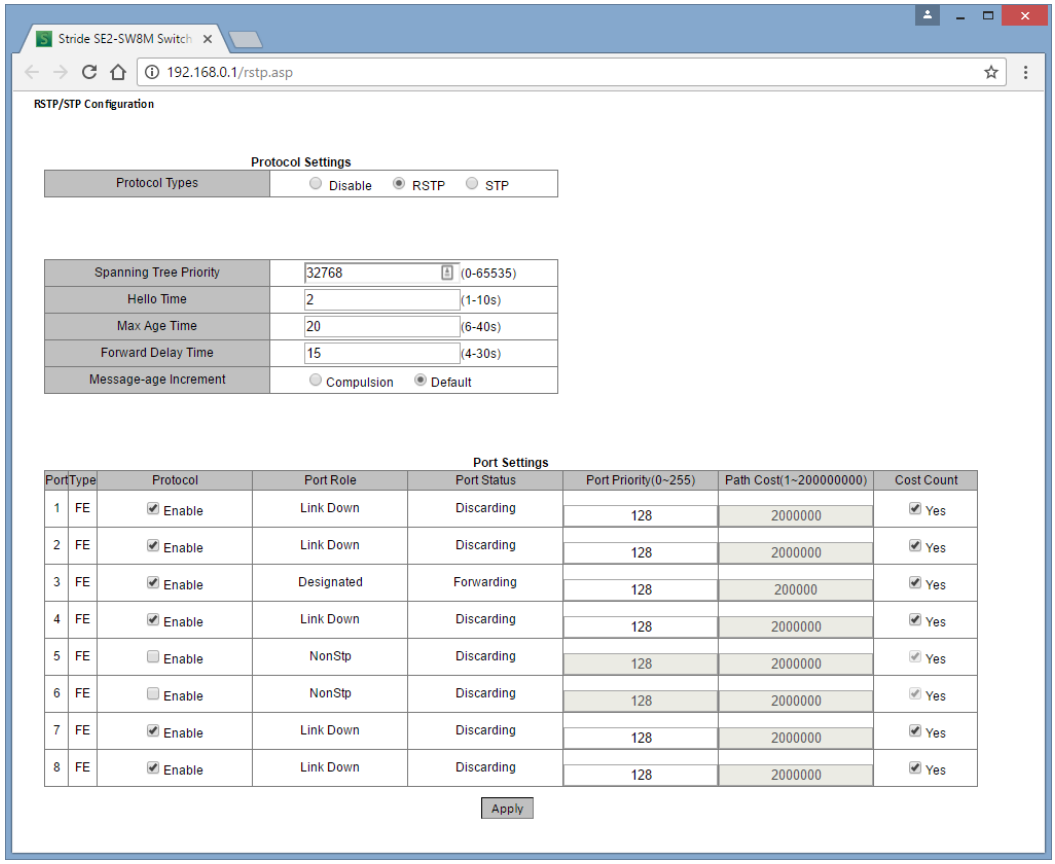
1. Typically a switch will be protected by either AD-Ring or RSTP. If AD-Ring is configured on a switch, disable RSTP.

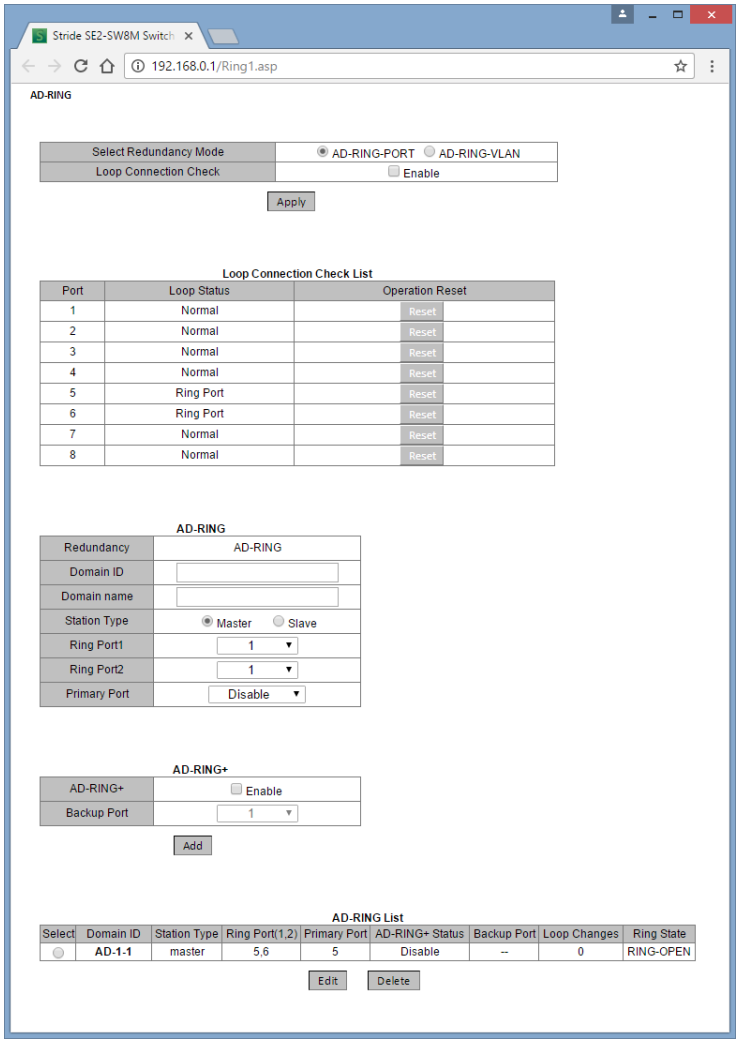
- On the Redundancy – RSTP/STP Configuration page, set Protocol Types to “Disable.



2. It is possible for AD-Ring and RSTP to coexist on a switch. If a switch participates in both an AD-Ring and a spanning tree, exclude the AD-Ring ports from Spanning tree:

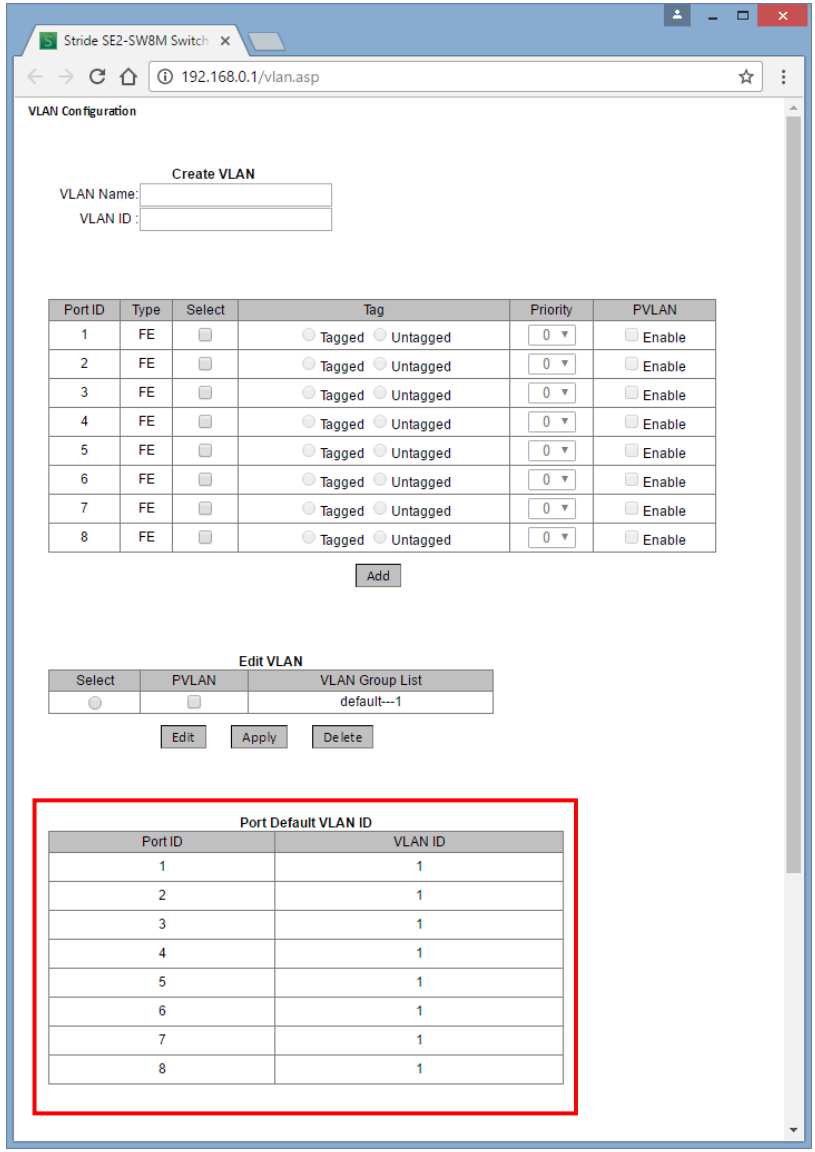
- On the Redundancy – RSTP/STP Configuration page, check the boxes to exclude the Real-Time Ring ports from Spanning Tree. Ports 5 & 6 are excluded because they are part of AD-Ring AD-1-1.

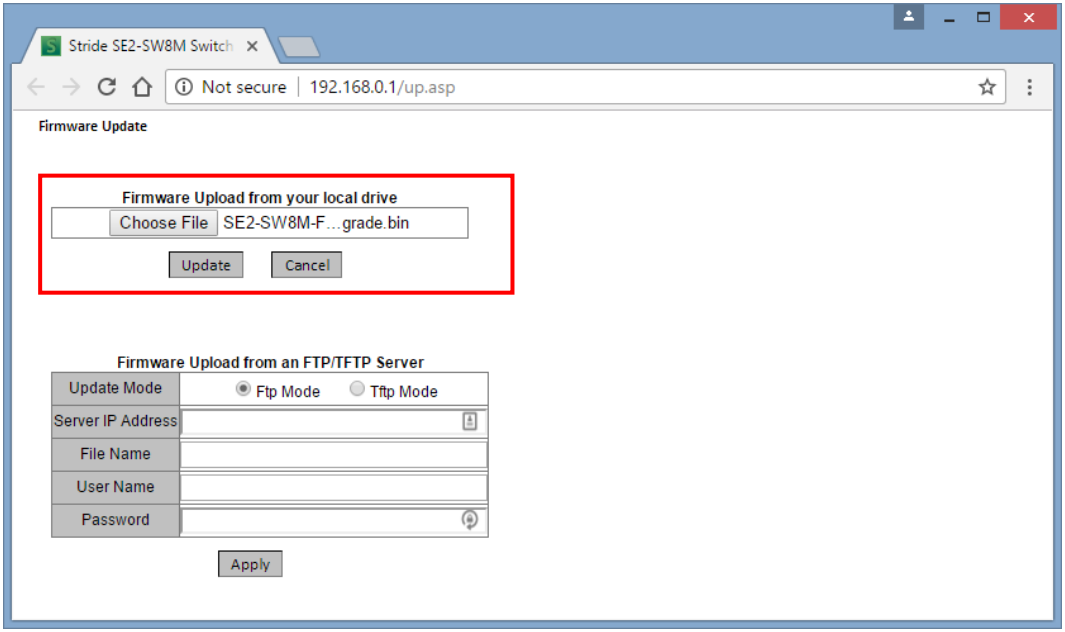



Stride SE2-SW8M Switch
192.168.0.1/Ring1.asp
AD-RING
Select Redundancy Mode
AD-RING-PORT
AD-RING-VLAN
Loop Connection Check
Enable
Apply
Loop Connection Check List
Port
Loop Status
Operation Reset
1 Normal Reset
2 Normal Reset
3 Normal Reset
4 Normal Reset
5 Ring Port Reset
6 Ring Port Reset
7 Normal Reset
8 Normal Reset
AD-RING
Redundancy
AD-RING
Domain ID
Domain name
Station Type
Master
Slave
Ring Port1
Ring Port2
Primary Port
Disable
AD-RING+
AD-RING+
Enable
Backup Port
Add
AD-RING List
Select
Domain ID
Station Type
Ring Port(1,2)
Primary Port
AD-RING+ Status
Backup Port
Loop Changes
Ring State
AD-1-1 master 5,6 5 Disable -- 0 RING-OPEN
Edit
Delete

Troubleshooting VLANs

The most common VLAN is the Tag-based **VLAN**. The port that is used to access the browser based switch management must participate in **VLAN**1. All ports participate in VLAN1 by default.



Installing Switch Firmware

Switch firmware is written from the browser or CLI. SE2 series switches do not maintain multiple versions of firmware.