APPLICATION NOTE

Product Family: Networking Hardware
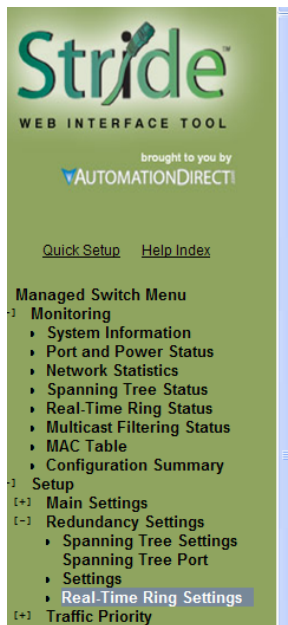
Number: AN-NH-010

Subject: RTR Configuration

Date Issued: Dec 14, 2011

Revision: Original

Web Interface

1. Log into the switch from your web browser. The default username and password are admin/admin.

2. From the Managed Switch menu, click on the Setup menu to see the options, then click on Redundancy Settings.

3. Click **Real-Time-Ring Settings**.

4. In the Real-Time-Ring Settings page, select the **Enable** check boxes for as many rings as you would like to enable.

5. Enter a name for each ring if desired, and select the ports you would like to use for each ring. Note that each port may only be a member of one ring.

6. It is suggested to leave the ring master set to automatic, unless you have a specific reason to designate one as a master.

7. Click **Commit Changes** when you have finished entering settings to enable RTR.

8. To confirm that RTR is active and to monitor its status, from the Managed Switch menu choose Monitoring>Real-Time-Ring Status.

The Real-Time Ring Status page displays the individual port status and the overall Ring status for each ring.

CLI Interface

1. Log into the switch via console or telnet. The default username and password are cli/admin.

2. Type **ring enable <ring number> 1.** The ring number should be specified after the word enable, and the **1** at the end indicates that the ring should be activated. If the **1** is replaced with a **0** in the same command, the specified ring will be disabled, if it exists.

3. Type **ring name <ring number> <new name>** to specify the desired name for the specified ring.

4. Type **ring ports <ring number> <primary port> <backup port>** to set the primary and backup ports for the specified ring. There must be a space between the ring number, the primary port and the backup port.

5. Repeat steps 2 through 4 for each additional ring you wish to configure.

6. Type **commit** and press Enter to activate the ring settings.

7. To confirm your settings, type **ring list** to view the list of currently configured rings.

Frequently Asked Questions

Q: What is Real-Time-Ring?

A: Real-Time-Ring is a proprietary protocol that provides extremely fast failure recovery in the event of a network break. It is many times faster than RSTP. However, it can only be configured in a ring, whereas RSTP can be arranged in almost any configuration.

Q: How quickly does the Real-Time-Ring protocol recover from a failure?

A: RTR can typically recover in 30 ms (milliseconds) plus 5ms per hop. For example, a four-switch ring would normally recover from a failure in 50 ms.

Q: How many switches can I connect in a Real-Time Ring?

A: While there is no maximum, the larger the ring gets, the longer the network will take to recover from a failure.

Monitor the status of ring redundancy, if enabled.

Ring	Name	Primary Port	Primary Link	Backup Port	Backup Link	Status
1	Ring 1	1	Up	2	Up	Complete

Q: Which managed switches support Real-Time-Ring?

A: All Stride managed switches support Real-Time-Ring.

Q: Can I use RTR with another brand of ring switch, or another ring protocol?

A: No, RTR is a proprietary protocol.

Q: How many rings can I configure using RTR?

A: You can configure up to four independent rings, as long as your device has enough ports to do so. For example, a five-port managed switch such as SE-SW5M can only support two rings, because it does not have enough ports to support four rings. However, the 16-port SE-SW16M switch does support the full four-ring limit.

Q: Can RTR and RSTP be enabled on the same switch?

A: Yes, however, a particular port may only be used for one protocol or the other. For example, if a port is part of a Real-Time-Ring, that port cannot also participate in a spanning tree.

Technical
Assistance: If you have questions regarding this Application Note, please contact us at 770-844-4200 for further assistance.