



# APPLICATION NOTE

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**Product Family:** Networking Hardware

**Number:** AN-NH-010

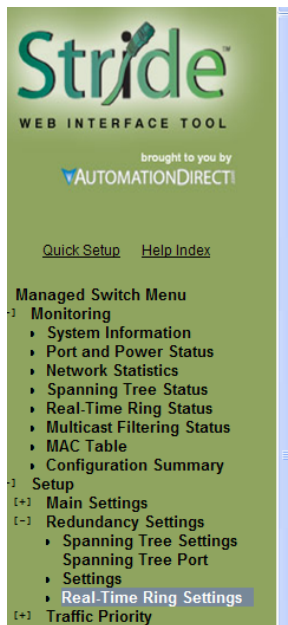
**Subject:** RTR Configuration

**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**.



### REAL-TIME RING SETTINGS

Configure the ring parameters to optimize your network redundancy and maximize reliability.

Enable	Ring Name	Primary Port	Backup Port
<input checked="" type="checkbox"/>	Ring 1	port_7	port_8
<input type="checkbox"/>	Ring 2	none	none
<input type="checkbox"/>	Ring 3	none	none
<input type="checkbox"/>	Ring 4	none	none

Warning: Only one switch may be selected as master.

**Ring Master**

Automatic Master

Commit Changes

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



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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.

**Stride**  
WEB INTERFACE TOOL  
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Quick Setup Help Index

Managed Switch Menu  
-2 Monitoring  
• System Information  
• Port and Power Status  
• Network Statistics  
• Spanning Tree Status  
• Real-Time Ring Status  
• Multicast Filtering Status  
• MAC Table  
• Configuration Summary

### REAL-TIME RING STATUS

Monitor the status of ring redundancy, if enabled.

Ring	Name	Primary Port	Primary Link	Backup Port	Backup Link	Status
1	Ring 1	7	Up	8	Up	Complete

Status is updated every 5 seconds.  
Last updated: Thursday, November 03, 2011 2:06:46 PM

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.



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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.



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**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.