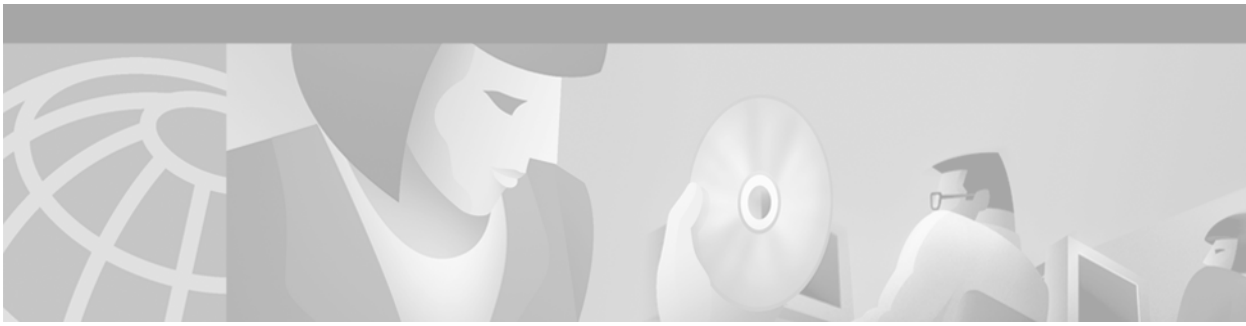

Token Ring Route Switch Module Commands

Use the commands in this chapter to configure and monitor the Token Ring Route Switch Module feature. For Token Ring Route Switch Module configuration tasks and examples, refer to the "Configuring Token Ring Route Switch Module" chapter of the *Cisco IOS Bridging and IBM Networking Configuration Guide*.

clear drip counters

To clear duplicate ring protocol (DRiP) counters from the RSM interfaces, use the **clear drip counters** privileged EXEC command.

clear drip counters

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.3(4)T	This command was introduced.

Usage Guidelines

Use the **clear drip counters** command if you want to check whether the router is receiving any packets. The counters will start at 0. If the counters are incrementing, DRiP is active on the router.

Examples

The following example clears DRiP counters:

```
router# clear drip counters
```

Related Commands

Command	Description
clear drip counters	Clears DRiP counters.
interface vlan	Configures a Token Ring or Ethernet interface on the RSM.
show drip	Displays the status of the DRiP database

interface vlan

To configure a Token Ring or Ethernet interface on the RSM, use the **interface vlan** interface configuration command.

interface vlan *vlanid* **type** [**trbrf** | **ethernet**]

Syntax Description

vlanid	Unique VLAN ID number used to create a VLAN.
trbrf | **ethernet**	(Optional) RSM Interface type.

Defaults

The RSM interfaces are not configured.

Command Modes

Interface configuration

Command History

Release	Modification
11.3(5)T	This command was introduced.

Usage Guidelines

Valid Token Ring VLAN ID numbers are 2 through 1000.

Routing or bridging to a Token Ring VLAN (TrBRF) on the RSM is done by creating a logical interface to a TrBRF VLAN on the RSM with the interface vlan command. The TrBRF VLAN must be defined on the Supervisor module prior to creating the TrBRF interface on the RSM.

Examples

The **interface vlan** command is used to configure an RSM Token Ring interface with VLAN 998:

```
interface vlan998 type trbrf
 ip address 5.5.5.1 255.255.255.0
```

Related Commands

Command	Description
clear drip counters	Clears DRiP counters.
multiring trcrf-vlan	Creates a pseudo-ring to terminate the RIF for source-routed traffic and assigns it to a VLAN.
source-bridge trcrf-vlan	Attaches a TrCRF VLAN to the virtual ring of the router.
show drip	Displays the status of the DRiP database

multiring trcrf-vlan

To create a pseudo ring on the RSM and to terminate the RIF when routing IP or IPX source-routed traffic on Token Ring VLAN (TrBRF) interfaces, use the **multiring trcrf-vlan** interface configuration command. Use the **no** form of this command to disable the termination of RIFs on the RSM interface.

multiring trcrf-vlan *vlanid* **ring-group** *ring-number*

no multiring trcrf-vlan *vlanid* **ring-group** *ring-number*

Syntax Description

vlanid	VLAN ID number. Valid VLAN ID numbers are 2 through 1000.
ring-group *ring-number*	Keyword that specifies the pseudo ring number used to terminate the RIF.

Defaults

Termination of RIFs is disabled on the RSM interfaces.

Command Modes

Interface configuration

Command History

Release	Modification
11.3(4)T	This command was introduced.

Usage Guidelines

Use the **multiring** command to collect and use RIFs for routed protocols. On an RSM, the multiring command appends RIFs for routed protocols on Token Ring VLAN interfaces. When this command is enabled for a protocol, the RSM will source packets that include information used by source-route bridges. The Token Ring VLAN interfaces on the RSM can connect to an SRB Token Ring network for the protocols specified in the command.

Each Token Ring VLAN interface that is configured with the multiring command on the RSM must also be accompanied by the **multiring trcrf-vlan** command.

Use the **multiring trcrf-vlan** command to:

- Create a pseudo-ring on which RIFs are terminated for routed protocols.
- Assign the pseudo-ring to a TrCRF VLAN.

When configuring SRB and IP or IPX routing SR frames on an RSM's TrBRF interface, define both a virtual ring and a pseudo-ring for the interface using the **source-bridge** and **multiring trcrf-vlan** commands. In this case, the VLAN ID used for the TrCRF that corresponds to the virtual ring can be the same as the one used for the pseudo ring number. If the VLAN IDs are different, the virtual ring and pseudo-ring numbers must be different.

Examples

In the following example, the **multiring trcrf-vlan** command is used to configure a pseudo-ring with ring number 100 on the RSM:

```
interface Ethernet 2/2
 ip address 4.4.4.1 255.255.255.0
!
interface vlan998 type trbrf
 ip address 5.5.5.1 255.255.255.0
 multiring trcrf-vlan 200 ring-group 100
 multiring all
```

Related Commands

Command	Description
interface vlan	Configures a Token Ring or Ethernet interface on the RSM.
clear drip counters	Clears DRiP counters.
rif	Enters static source-route information into the RIF cache. If a Token Ring host does not support the use of IEEE 802.2 TEST or XID datagrams as explorer packets, static information may need to be added to the RIF cache of the router.
multiring	Enables collection and use of RIF information.
show drip	Displays the status of the DRiP database
show rif	Displays the current contents of the RIF cache.

show drip

To display the status of the DRiP database for a router or an RSM, use the **show drip** privileged EXEC command.

show drip

Syntax DescriptionS

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.3(4)T	This command was introduced.

Examples

In the following example, the output for the **show drip** command is shown:

```
router#show drip

DRIP Database for Mgmt Domain FastEthernet4/0
---------------------------------------------------
Mac Address 0010-A6AE-B440
Vlan     100    Status    30 : l-active, l-config,

Mac Address 0010-2F72-C800
Vlan      20    Status    0C : r-active, r-config,
Vlan    1003    Status    0C : r-active, r-config,

Statistics:
Advertisements received           126
Advertisements processed          1
Advertisements transmitted        131
Last revision transmitted         0x84
Last changed revision transmitted  0x2
```

Related Commands

Command	Description
interface vlan	Configures a Token Ring or Ethernet interface on the RSM.
clear drip counters	Clears DRiP counters.
show vlans	Displays virtual LAN subinterfaces.

source-bridge trcrf-vlan

To attach a VLAN to the RSM's virtual ring when source-route bridging, use the **source-bridge trcrf-vlan** interface configuration command. Use the **no** form of the command to disable the attachment of a VLAN to the RSM's virtual ring.

source-bridge trcrf-vlan *vlanid* **ring-group** *ringnum*

Syntax DescriptionS

vlanid	VLAN ID number.
ring-group *ringnum*	Pseudo ring number that corresponds to the virtual ring number for the interface.

Defaults

No default behavior or values.

Command Modes

Interface configuration

Command History

Release	Modification
11.3(4)T	This command was introduced.

Usage Guidelines

Use the **source-bridge ring-group** command to create a virtual ring for SRB between TrBRF VLANs. Use the **source-bridge trcrf-vlan** command to assign a TrCRF VLAN ID to the virtual ring.

In SRB and SR/TLB, define a unique TrCRF VLAN ID that corresponds to the virtual ring on the RSM for each TrBRF. Although the VLAN ID for the TrCRF is unique for each TrBRF, the ring number will be the same.

If IP or IPX routing SR frames is required on a TrBRF interface configured for SRB, you must also define a pseudo-ring for this interface with the **multiring trcrf-vlan** command. In this case, the VLAN ID used for the TrCRF that corresponds to the virtual ring can be the same as the one used for the pseudo-ring. If the VLAN IDs are different, the virtual ring and pseudo-ring numbers must be different.

Examples

An example with both SRB and IP routing for SR frames is shown below:

```
source-bridge ring-group 100
interface Token Ring3/1
 source-bridge 10 1 100
 source-bridge spanning
!
interface vlan999 type trbrf
 source-bridge trcrf-vlan 400 ring-group 100
 source-bridge spanning
 multiring all
 multiring trcrf-vlan 400 ring-group 100
```

Note that the ring number must be the same for the **source-bridge ring-group**, **source-bridge**, and **source-bridge trcrf-vlan** commands. In this example, the ring number of the pseudo ring also matches the virtual ring number.

Related Commands

Command	Description
show source-bridge	Displays the current source bridge configuration and miscellaneous statistics.
source-bridge ring-group	Defines or removes a ring group from the configuration.