PVC Configuration Mode Commands

Command Modes

The Permanent Virtual Connection (PVC) configuration mode commands bind IP interfaces or SS7-Frame Relay links a PVC as well as configure PVC operational parameters for a specific port.

Exec > Global Configuration > ATM Port Configuration > PVC Configuration

configure > port atm *slot_number/port_number* **> pvc vpi** *vpi_number* **vci** *vci_number*

Entering the above command sequence results in the following prompt:

`[local]`*`host_name`*`(config-port-`*`slot_number/port_number`*`-pvc-`*`pvc_number/vci_number`*`)#`

Important The commands or keywords/variables that are available are dependent on platform type, version, and installed license(s).

Important For information on common commands available in this configuration mode, refer to the Common Commands chapter.

- bind, on page 1
- encapsulation aal5, on page 2
- shaping, on page 3
- shutdown, on page 4

bind

This command binds an IP interface or an SS7 link to the PVC.

Important Prior to attempting the binding, the interface and context or the SS7 routing information and link must have been configured.

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Entering the above command sequence results in the following prompt:

`[local]host_name(config-port-slot_number/port_number-pvc-pvc_number/vci_number)#`

Syntax Description

`[ no ] bind { interface` *`interface_name context_name`* **`| link ss7-routing-domain`** *`rd_id`* **`linkset-id`** *`id`* **`link-id`** *`id`* **`}`**

no

Removes the binding from the configuration.

interface_name

Defines the name of the virtual interface to be bound to the PVC. *interface_name:* Must be a unique string consisting of 1 to 79 alphanumeric characters.

context_name

Specifies the name of the context to be bound to the virtual interface. *context_name:* Must be a unique string consisting of 1 to 79 alphanumeric characters.

ss7-routing-domain *rd_id*

Identifies a specific SS7 routing domain. *rd_id* must be an integer from 1 to 12

linkset-id *id*

Identifies a specific linkset within the routing domain. *id*: must be an integer from 1 to 33

link-id *id*

Identifies a specific link within the linkset. *id*: must be an integer value 1 - 16

Usage Guidelines

Use this command to bind the PVC to an interface or a specific link.

Example

Use a command similar to the following to bind a PVC to a link ID #2:

`bind ss7-routing-domain` *`1`* **`linkset-id`** *`23`* **`link-id`** *`2`*

encapsulation aal5

Specify the data encapsulation type for the ATM adaptation layer 5 (AAL5) frames for the PVC.

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Entering the above command sequence results in the following prompt:

`[local]host_name(config-port-slot_number/port_number-pvc-pvc_number/vci_number)#`

Syntax Description

`encapsulation aal5 { llc-snap | vc-mux }`

llc-snap

Frames protocol is identified in the AAL5 using logical link control (LLC) encapsulation.

vc-mux

Frames are not encapsulated and use virtual circuit multiplexing (VC-MUX) to identify the protocols used for the AAL5 frames.

Usage Guidelines

Use this command to identify the protocol type for the circuit.

Example

`encapsulation aal5 vc-mux`

shaping

Specify the type of traffic shaping (rates) for this PVC.

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configure > port atm *slot_number/port_number* **> pvc vpi** *vpi_number* **vci** *vci_number*

Entering the above command sequence results in the following prompt:

`[local]host_name(config-port-slot_number/port_number-pvc-pvc_number/vci_number)#`

Syntax Description

`shaping { cbr pcr` *`prc_num`* **`| ubr pcr`** *`prc_num`* **`| ubr+ pcr`** *`prc_num`* **`mrc`** *`mrc_num`* **`| vbr pcr`** *`prc_num`* **`scr`** *`src_num`* **`mbs`** *`mbs_num`* **`}`**

cbr

Constant bit rate

pcr - peak cell rate = cells per second

prc_num: Must be an integer from 75 to 1412830

ubr

Unspecified Bit Rate

pcr - peak cell rate = cells per second

prc_num: Must be an integer from 75 to 1412830

ubr+

Unspecified Bit Rate with Minimum Cell Rate.

The PCR and MCR values should be set to maintain the following relationship: PCR >= (MCR + minRate), where the current recomment minRate is 75.

pcr - peak cell rate = cells per second

prc_num: Must be an integer from 75 to 1412830

mcr - minimum cell rate

mrc_num: Must be an integer from 75 to 1412830

vbr

Variable Bit Rate, NRT (not real time) type.

The PCR and MCR values should be set to maintain the following relationship: PCR >= (MCR + minRate), where the current recomment minRate is 75.

pcr - peak cell rate = cells per second

prc_num must be an integer from 75 to 1412830

scr - sustained cell rate

src_num must be an integer from 75 to 1412830

mbs - maximum burst size

mbs_num must be an integer from 75 to 1412830

Usage Guidelines Use this command to configure the shaping for egress traffic on this PVC.

Example

```
shaping cbr pcr 56000
```

shutdown

Disables/enables traffic over the current VLAN.

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Entering the above command sequence results in the following prompt:

`[local]host_name(config-port-slot_number/port_number-pvc-pvc_number/vci_number)#`

Syntax Description

shutdown
no shutdown

no

Enables the VLAN. When omitted the VLAN is non-functional.

Usage Guidelines

Enables/ Disables specified VLAN.

This command is necessary to bring a VLAN into service by enabling it via the **no** keyword.

Example

To disable a VLAN from sending or receiving network traffic use the following command:

shutdown

To enable a VLAN use the following command:

no shutdown