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).

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.

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

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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*

do show

Executes all **show** commands while in Configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

```
do show
```

| **Usage Guidelines** | Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command. |

The pipe character | is only available if the command is valid in the Exec mode.

⚠️

Caution There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

encapsulation aal5

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

Product	SGSN
Privilege	Security Administrator, Administrator
Command Modes	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*`)#`
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`

end

Exits the PVC configuration mode and returns to the Exec mode.

exit

Product	SGSN
Privilege	Security Administrator, Administrator
Syntax Description	`end`
Usage Guidelines	Change the mode back to the Exec mode.

exit

Exits the PVC configuration mode and returns to the ATM port configuration mode.

Product	SGSN
Privilege	Security Administrator, Administrator
Syntax Description	`exit`
Usage Guidelines	Return to the port configuration mode.

shaping

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

Product	SGSN
Privilege	Security Administrator, Administrator
Command Modes	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*`)#`
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.

Product SGSN

Privilege Security Administrator, Administrator

Command Modes 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*)#

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
```