

PVC Discovery

Functional Description

The PVC Discovery subfeature allows you to enable your router to automatically assign (or discover) PVCs on an ATM main interface or subinterface using information from an attached adjacent switch.

How PVC Discovery Works

When you configure PVC Discovery on an ATM interface, you enable your router to retrieve PVC parameter information from the attached adjacent switch using Interim Local Management Interface (ILMI). The router discovers the PVCs that are configured on the switch and configures the PVCs and their traffic parameters on the ATM main interface or subinterface that you specify.

Configuration Tasks

To configure PVC Discovery on an ATM interface, perform the following tasks starting in global configuration mode:

| Task | Command |
|--|--|
| Step 1 Specify an ATM main interface for one of the following: | |
| • AIP on Cisco 7500 series routers and ATM port adapter on the Cisco 7200 series routers | interface atm slot/0 |
| • NPM on Cisco 4500 and 4700 routers | interface atm number |
| • ATM port adapter on Cisco 7500 series routers | interface atm slot/port-adapter/0 |
| Step 2 Configure an ILMI PVC on the main interface. | pvc [name] 0/16 ilmi |
| Step 3 Re-enter interface configuration mode. | exit |

| Task | Command |
|--|--|
| Step 4 Configure PVC Discovery on the main interface and optionally specify that discovered PVCs will be assigned to a subinterface. | atm ilmi-pvc-discovery [subinterface] |
| Step 5 Re-enter global configuration mode. | exit |
| Step 6 (Optional) Specify the ATM subinterface for one of the following: <ul style="list-style-type: none"> • AIP on Cisco 7500 series routers and ATM port adapter on the Cisco 7200 series routers • NPM on Cisco 4500 and 4700 routers • ATM port adapter on Cisco 7500 series routers Discovered PVCs will be assigned to this subinterface if the subinterface keyword is used in the atm ilmi-pvc-discovery command in Step 4. | interface atm slot0.subinterface-number multipoint interface atm number.subinterface-number multipoint interface atm slot/port-adapter/0.subinterface-number multipoint |
| Step 7 (Optional) Specify the protocol address for the subinterface. | ip address ip-address mask |

Use the **subinterface** keyword in Step 4 if you want the discovered PVCs to reside on an ATM subinterface that you specify in Step 6. The discovered PVCs are assigned to the subinterface number that matches the VPI number of the discovered PVC. For example, if subinterface 2/0.1 is specified using the **interface atm** command, then all discovered PVCs with a VPI value of 1 will be assigned to this subinterface.

Repeat Steps 6 and 7 if you want discovered PVCs to be assigned to more than one subinterface. If a subinterface is not configured, discovered PVCs will be assigned to the main interface specified in Step 1.

Refer to the “Enhanced ATM VC Configuration and Management Commands” chapter for command reference and debug command documentation.

Configuration Example

The following example enables PVC Discovery on the ATM main interface 2/0. The keyword **subinterface** is used so that all discovered PVCs with a VPI value of 1 will be assigned to the subinterface 2/0.1:

```
interface atm 2/0
  pvc RouterA 0/16 ilmi
  exit
  atm ilmi-pvc-discovery subinterface
  exit
!
interface atm 2/0.1 multipoint
  ip address 172.21.51.5 255.255.255.0
```

