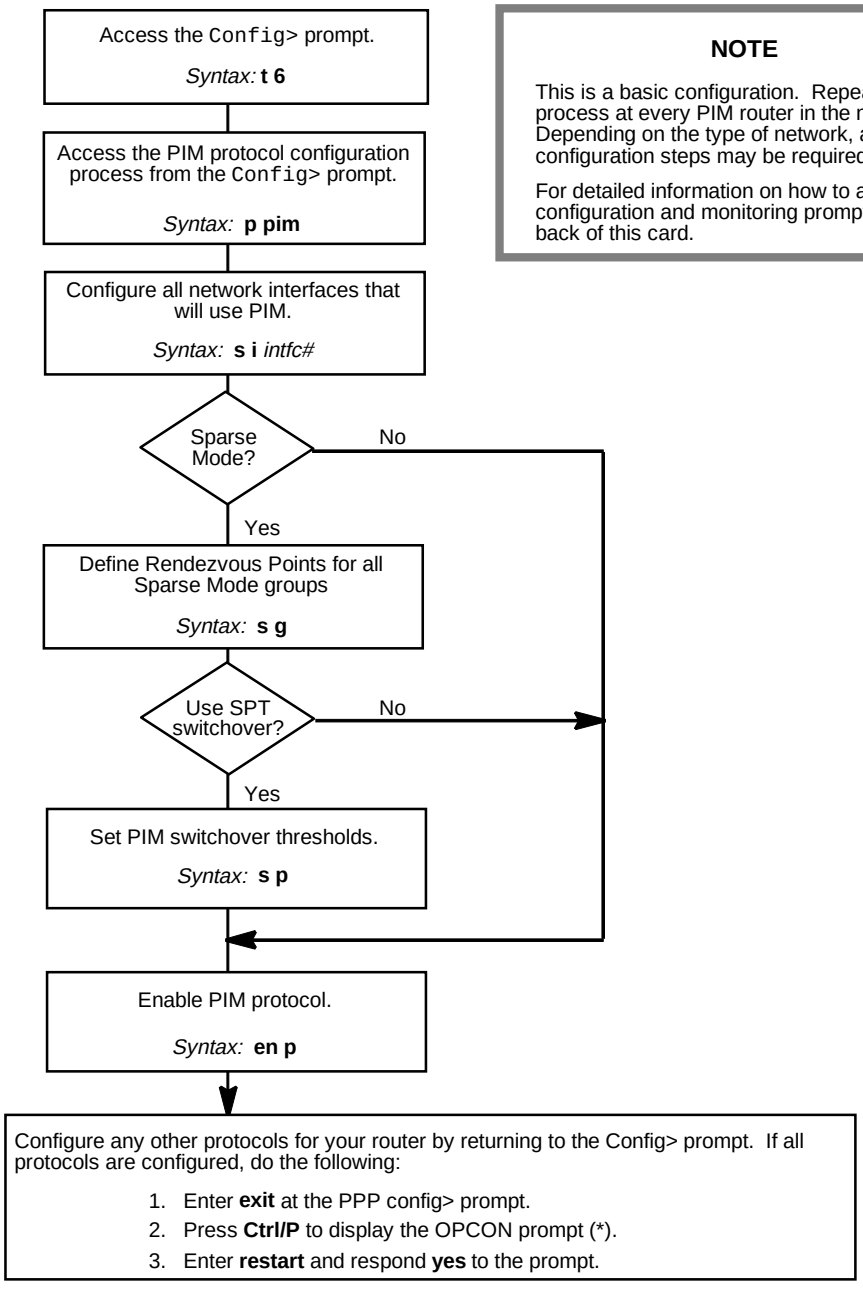
Protocol Independent Multicast Initial Configuration



NOTE

This is a basic configuration. Repeat this process at every PIM router in the network. Depending on the type of network, additional configuration steps may be required.

For detailed information on how to access the configuration and monitoring prompts, see the back of this card.

Configure any other protocols for your router by returning to the Config> prompt. If all protocols are configured, do the following:

1. Enter **exit** at the PPP config> prompt.
2. Press **Ctrl/P** to display the OPCON prompt (*).
3. Enter **restart** and respond **yes** to the prompt.

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Protocol Independent Multicast Quick Reference Card
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Protocol Independent Multicast Configuration Commands

This quick reference card summarizes the Protocol Independent Multicast (PIM) Protocol configuration and console commands. The front panel of this card provides the initial configuration steps for this protocol. The back panel tells you how to access the CONFIG process.

Enter the following configuration commands at the `PIM Config>` prompt. To list the configuration commands and their options, enter a **?**.

After you have configured all of the protocols, enter **restart** at the OPCON prompt (*), and respond **yes** after the following prompt:

```
Are you sure you want to restart the router? (Yes or No): yes
```

list

all

Displays all information related to PIM options and parameters.

delete

group

Removes the specified group entry from the group configuration table (Sparse Mode only).

interface

Removes the specified interface from the PIM interface configuration table.

disable

pim

Disables PIM protocol globally at system startup.

enable

pim

Enables PIM protocol globally at system startup, and reserves memory for routing tables.

join *group-address*

Sets permanent group membership for the router at system startup.

leave *group-address*

Removes permanent group membership previously configured using the **join** command.

set

group

Maps a list of Rendezvous Point routers to a multicast group (Sparse Mode only).

interface

Identifies the specified interface for use by PIM and configures threshold timers and polling intervals.

pim

Sets global timers and thresholds and enables SPT switchover for Sparse Mode PIM. Sets (S,G) entry timeout for Dense Mode and Sparse Mode PIM.

exit

Returns to the `Config>` prompt.

Protocol Independent Multicast Console Commands

Enter these commands after the PIM> prompt. The back panel of this card tells you how to access the CGWCON process.

To list the PIM console commands and their options, enter a **?** at the PIM> prompt.

dump *source group*
Displays a summary of the (S,G) entries in the PIM routing table or a detailed listing of a selected (S,G) entry.

interface *ip-address* or *interface#*
Displays a summary listing of all PIM interfaces or a detailed listing of a selected interface.

mgroups
Displays the group membership for this router.

neighbor
Displays a summary of the neighboring PIM routers.

join *group-address*
Sets group membership for the router. Used for testing purposes only. For example, use this command to set group membership at several routers, then use the **ping** command to verify the multicast group.

leave *group-address*
Removes group membership for the router previously requested using the **join** command. Used for testing purposes only.

ping *destination-address*
Lets the router send ICMP echo requests to a given destination. You can use this command to ping a multicast group for troubleshooting.

routes
Displays the IP routing table. This command is equivalent to the IP console **dump** command.

stat
Displays static memory usage, data throughput, and error rates.

traceroute *destination-address*
Displays the entire hop-by-hop path to a given destination.

exit
Returns to the CGWCON prompt (+).

Accessing the CONFIG Process

Use the CONFIG process to display and change the current configuration in static RAM (SRAM).
To display the CONFIG prompt (`Config>`):

1. After the router boots, the console displays the * prompt. Enter **status** to display the pid (process ID) of CONFIG, which is usually 6.
2. Enter **talk** and the pid (6) for CONFIG. This displays the following information:

   ```
   Gateway user configuration
   Config>
   ```

   If the `Config>` prompt does not appear, press Return again. You can now enter the configuration commands.
3. When you are done entering the configuration commands, do the following to make the new configuration active:

   a. Press **Ctrl/P** after the `Config>` prompt.

   ```
   Config> ^p
   *
   ```

   b. Enter **restart** after the * prompt.

   c. Respond **yes** to the following prompt:

   ```
   Are you sure you want to restart the gateway? (Yes or No): yes
   The new configuration is loaded when the console displays the following information:
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   MOS Operator Control
   *
   ```

Accessing the CGWCON Process

Use the CGWCON (also known as GWCON) process to monitor protocols, network interfaces, and system messages. You cannot access the CGWCON process if the router is in configuration–only mode (the prompt is `Config only>`). To display the CGWCON prompt (+):

1. After the router boots, the console displays the * prompt. Enter **status** to display the pid (process ID) of CGWCON, which is usually 5.
2. Enter **talk** and the pid (5) for CGWCON. This displays the CGWCON prompt (+). You can now enter the monitoring commands.

   To return to the * prompt, press Ctrl/P.

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