

Configuring a Cisco 700 Series Router with a CiscoPro CPA900 or Cisco 700 Series Router

This chapter contains configuration examples for connecting a Cisco 700 series router to a CiscoPro CPA900 series router or to another Cisco 700 series router. In the examples, a Cisco 765 router (at the remote site) and a CiscoPro CPA902 router (at the central site) are configured. However, you can replace the remote Cisco 765 with any Cisco 700 series router, and you can replace the central site CiscoPro CPA902 with a Cisco 700 series router.

For configuration examples for connecting a Cisco 700 series router to a router running Cisco Internetwork Operating System (Cisco IOS) software, refer to the chapter “Configuring Cisco 700 Series Routers with a Router Running Cisco IOS Software.”

This chapter contains the following sections:

- System Configurations
- On-Demand IP and IPX Routing with CPP
- On-Demand IP and IPX Routing with PPP
- On-Demand IP Routing with CPP
- On-Demand IP Routing with PPP
- IP Static Routing with CPP Authentication
- IP Static Routing and Callback with CPP
- IP Static Routing and CHAP Authentication with MLP
- IP Static Routing and PAP Authentication with PPP
- IP Static Unnumbered Routing and PAP Authentication with PPP
- On-Demand IPX Routing with CPP
- On-Demand IPX Routing with PPP

System Configurations

- IPX Static Routing with CPP
- IPX Static Routing with PPP

System Configurations

Before configuring the Cisco 700 series router to operate in a specific routing environment, you should configure the following system parameters:

- Integrated Services Digital Network (ISDN) switch type
- ISDN Service Profile Identifiers (SPIDs) (North American only)

This information can be provided either from your central site network administrator or from your ISDN service provider (telephone company).

Note For more information on these commands, refer to the *Cisco 750 Series and Cisco 760 Series Command Reference* publication.

Example System Configuration

Take the following steps to configure the router's ISDN system parameters:

Step 1 Use the **set switch** command to configure the ISDN switch type that is being used with your ISDN line:

```
Router> set switch dms
```

Step 2 Use the **set spid** command to enter the router's SPID numbers:

```
Router> set 1 spid 04085551234
Router> set 2 spid 04085556789
```

Note If you are using an analog device, such as a telephone or facsimile machine, connected to the router, you must also associate the SPID numbers with the analog device's telephone number. For more information, refer to the chapter "Using an Analog Telephone with Cisco 700 Series Routers."

You are now ready to configure the router for a specific routing environment.

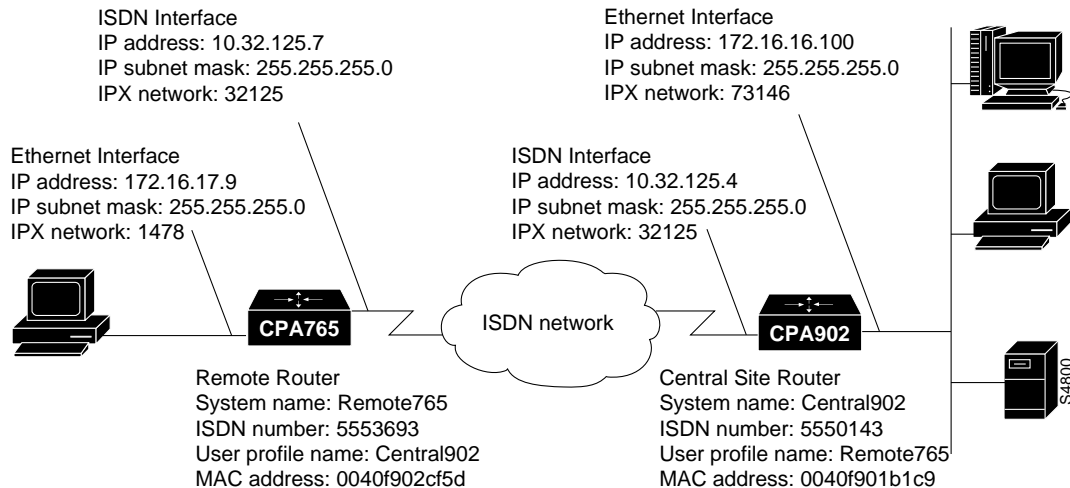
On-Demand IP and IPX Routing with CPP

This section describes how to configure a Cisco 765 router and a CiscoPro CPA902 router for on-demand Internet Protocol (IP) and Internetwork Packet Exchange (IPX) routing using Combinet Packet Protocol (CPP).

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default setting for the system level and for all user profiles.

Figure 4-1 is an illustration of the configuration used in this example.

Figure 4-1 On-Demand IP and IPX Routing with CPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IP and IPX routing with CPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ipx network 32125
set ipx routing on
```

```
set ipx rip update demand
set ipx spoof 10
set ip address 10.32.125.7
set ip netmask 255.255.255.0
set ip routing on
set ip rip update demand
set ip route destination 0.0.0.0/0 gateway 10.32.125.4
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for on-demand IP and IPX routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Remote765> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and for all default profiles and user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

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Step 5 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

Step 6 Use the **set ipx framing** command to configure IPX packets sent onto the Ethernet LAN for Internetwork Packet Exchange Control Protocol (IPXCP) framing:

```
Remote765:Lan> set ipx framing 802.2
```

Step 7 Use the **set ipx routing** command to enable IPX routing to Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

Step 8 Use the **set ipx rip update** command to send IPX Routing Information Protocol (RIP) updates onto the Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

Step 9 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 10 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 11 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 12 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 13 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 14 Use the **set user** command to create a user profile for the central site Cisco 765:

```
Remote765> set user Central902
```

Step 15 Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

Step 16 Use the **set ipx routing** command to enable IPX routing to the central site Cisco 765:

```
Remote765:Central902> set ipx routing on
```

Step 17 Use the **set ipx rip update** command to send IPX RIP packets to the central site CPA902 only when changes are made to the routing tables:

```
Remote765:Central902> set ipx rip update demand
```

Step 18 Use the **set ipx spoof** command to have the Cisco 765 respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 19 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 20 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 21 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 22 Use the **set ip rip update** command to send IP RIP packets to the central site CPA902 only when a change occurs in the RIP routing table:

```
Remote765:Central902> set ip rip update demand
```

Step 23 Use the **set ip route** command to configure an unnumbered route to the destination network:

```
Remote765:Central902> set ip route destination 0.0.0.0/0  
gateway 10.32.125.4
```

Step 24 Use the **set profile id** command to configure the Media Access Control (MAC)-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 25 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 26 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 27 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CPA902 for on-demand IP and IPX routing with CPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
set ip address 172.16.16.100
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Remote765
set bridging off
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set ip address 10.32.125.4
set ip netmask 255.255.255.0
```



```
set ip routing on
set ip rip update demand
set profile id 0040f902cf5d
set number 5553693
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CPA902 for on-demand IP and IPX routing with CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

Step 4 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

Step 5 Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

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Step 6 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

Step 7 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 8 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 9 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 10 Use the **set ip rip update** command to send IP RIP updates onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 11 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 12 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 13 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 14 Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

Step 15 Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```

Step 16 Use the **set ipx rip update** command to send IPX RIP packets to the remote Cisco 765 router only when changes are made to the routing tables:

```
Central902:Remote765> set ipx rip update demand
```

Step 17 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 18 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 19 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 20 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 21 Use the **set ip rip update** command to send IP RIP packets to the remote Cisco 765 only when a change occurs in the RIP routing table:

```
Central902:Remote765> set ip rip update demand
```

Step 22 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 23 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

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Step 24 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 25 Use the **reboot** command to reset the router and enable your configuration changes:

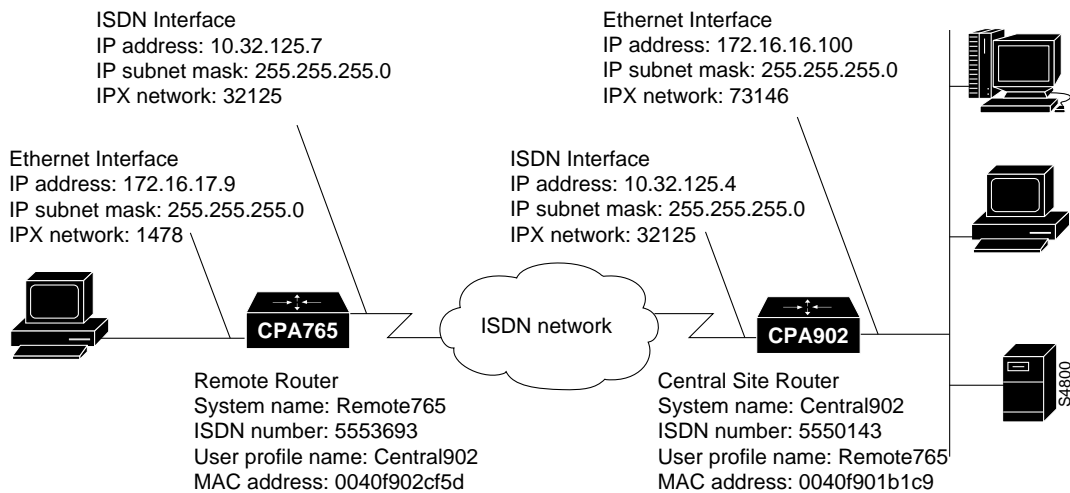
```
Central902:Remote765> reboot
```

On-Demand IP and IPX Routing with PPP

This section describes how to configure the Cisco 765 router and the CiscoPro CPA902 router for on-demand IP and IPX routing using Point-to-Point Protocol (PPP).

Figure 4-2 is an illustration of the configuration used in this example.

Figure 4-2 On-Demand IP and IPX Routing with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IP and IPX routing using PPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set ipx framing none
set ip address 10.32.125.7
set ip netmask 255.255.255.0
set ip routing on
set ip rip update demand
set ip framing none
set ip route destination 0.0.0.0/0 gateway 10.32.125.4
set encapsulation ppp
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for on-demand IP and IPX routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and for all default profiles and user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multideestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multideestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

Step 6 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Remote765:Lan> set ipx framing 802.2
```

Step 7 Use the **set ipx routing** command to enable IPX routing to the local Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

Step 8 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

Step 9 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 10 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 11 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 12 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 13 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 14 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 15 Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

Step 16 Use the **set ipx routing** command to enable IPX routing to the central site CPA902:

```
Remote765:Central902> set ipx routing on
```

Step 17 Use the **set ipx rip update** command to send IPX RIP packets to the central site CPA902 only when changes are made to the routing tables:

```
Remote765:Central902> set ipx rip update demand
```

Step 18 Use the **set ipx spoof** command to have the router respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 19 Use the **set ipx framing** command to configure IPX packets sent to the central site CPA902 for Internetwork Packet Exchange Control Protocol (IPXCP) packet framing:

```
Remote765:Central902> set ipx framing none
```

Step 20 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 21 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 22 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 23 Use the **set ip rip update** command to send IP RIP packets to the central site CPA902 only when a change occurs in the RIP routing table:

```
Remote765:Central902> set ip rip update demand
```

Step 24 Use the **set ip framing** command to configure IP packets sent to the central site CPA902:

```
Remote765:Central902> set ip framing none
```

Step 25 Use the **set ip route** command to configure an unnumbered route to the destination network:

```
Remote765:Central902> set ip route destination 0.0.0.0/0  
gateway 10.32.125.4
```


Step 26 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 27 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 28 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 29 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 30 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for on-demand IP and IPX routing using PPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
set ip address 172.16.16.100
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Remote765
set bridging off
```

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```
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set ipx framing none
set ip address 10.32.125.4
set ip netmask 255.255.255.0
set ip routing on
set ip rip update demand
set ip framing none
set encapsulation ppp
set profile id 0040f902cf5d
set number 5553693
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for on-demand IP and IPX routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

- Step 4** Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

- Step 5** Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

- Step 6** Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

- Step 7** Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

- Step 8** Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

- Step 9** Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

- Step 10** Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

- Step 11** Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

- Step 12** Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

- Step 13** Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

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Step 14 Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

Step 15 Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```

Step 16 Use the **set ipx rip update** command to send IPX RIP packets to the remote Cisco 765 only when changes are made to the routing tables:

```
Central902:Remote765> set ipx rip update demand
```

Step 17 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 18 Use the **set ipx framing** command to configure IPX packets sent to the remote Cisco 765 for IPXCP framing:

```
Central902:Remote765> set ipx framing none
```

Step 19 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 20 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 21 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 22 Use the **set ip rip update** command to send IP RIP packets to the remote Cisco 765 only when a change occurs in the RIP routing table:

```
Central902:Remote765> set ip rip update demand
```

Step 23 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ip framing none
```

Step 24 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 25 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 26 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 27 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 28 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

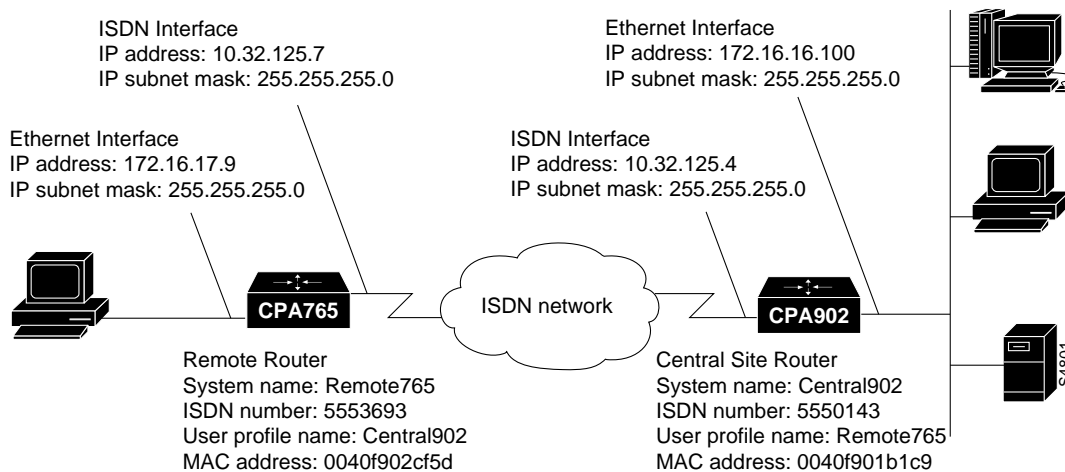
On-Demand IP Routing with CPP

This section describes how to configure the central site CiscoPro CPA902 and the remote Cisco 765 for on-demand IP routing using Combinet Packet Protocol (CPP).

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default settings for the system level and for all user profiles.

Figure 4-3 is an illustration of the configuration used in this example.

Figure 4-3 On-Demand IP Routing CPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IP routing using CPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.32.125.7
set ip netmask 255.255.255.0
set ip routing on
```

```
set ip rip update demand
set ip route destination 0.0.0.0/0 gateway 10.32.125.4
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for on-demand IP routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multideestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multideestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

- Step 6** Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

- Step 7** Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

- Step 8** Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

- Step 9** Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

- Step 10** Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

- Step 11** Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

- Step 12** Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

- Step 13** Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

- Step 14** Use the **set ip rip update** command to send IP RIP packets to the central site CPA902 only when a change occurs in the RIP routing table:

```
Remote765:Central902> set ip rip update demand
```


Step 15 Use the **set ip route** command to configure an unnumbered route to the destination network:

```
Remote765:Central902> set ip route destination 0.0.0.0/0  
gateway 10.32.125.4
```

Step 16 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 17 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 18 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 19 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for on-demand IP routing using CPP:

```
set system Central902  
cd lan  
set ip address 172.16.16.100  
set ip netmask 255.255.255.0  
set ip routing on  
set ip rip update periodic  
cd  
set user Remote765  
set bridging off  
set ip address 10.32.125.4  
set ip netmask 255.255.255.0  
set ip routing on  
set ip rip update demand
```

```
set profile id 0040f902cf5d
set number 5553693
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central CiscoPro CPA902 for on-demand IP routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 10 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 11 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 12 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 13 Use the **set ip rip update** command to send IP RIP packets to the remote Cisco 765 only when a change occurs in the RIP routing table:

```
Central902:Remote765> set ip rip update demand
```

Step 14 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 15 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

On-Demand IP Routing with PPP

Step 16 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 17 Use the **reboot** command to reset the router and enable your configuration changes:

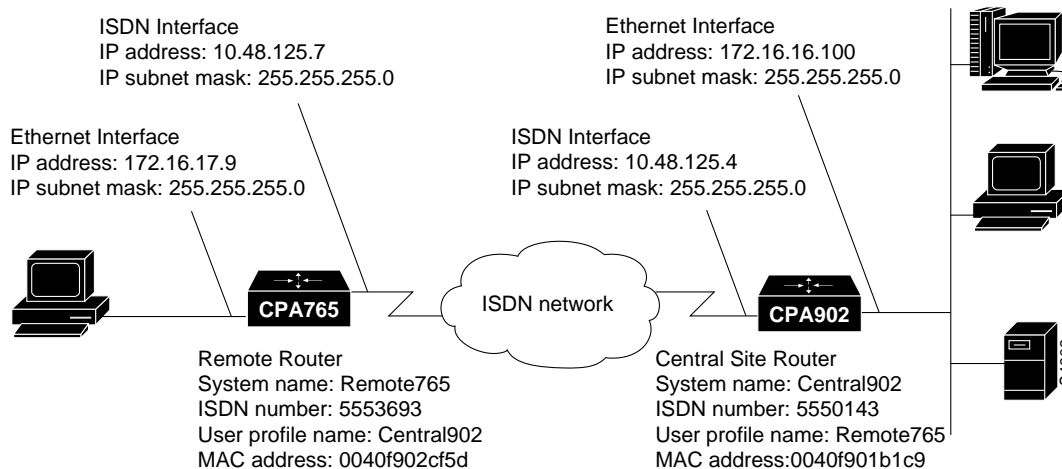
```
Central902:Remote765> reboot
```

On-Demand IP Routing with PPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for on-demand IP routing using Point-to-Point Protocol (PPP).

Figure 4-4 is an illustration of the configuration used in this example.

Figure 4-4 On-Demand IP Routing with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IP routing using PPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.48.125.7
set ip netmask 255.255.255.0
set ip routing on
set ip framing none
set ip rip update demand
set route destination 0.0.0.0/0 gateway 10.48.125.4
set encapsulation ppp
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for on-demand IP routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 6 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 7 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 8 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 11 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 12 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 13 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 14 Use the **set ip framing** command to configure IP packets sent to the central site CPA902:

```
Remote765:Central902> set ip framing none
```

Step 15 Use the **set ip rip update** command to send IP RIP packets to the central site CPA902 only when a change occurs in the RIP routing table:

```
Remote765:Central902> set ip rip update demand
```

Step 16 Use the **set ip route** command to configure an unnumbered route to the destination network:

```
Remote765:Central902> set ip route destination 0.0.0.0/0  
gateway 10.32.125.4
```

Step 17 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 18 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 19 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

On-Demand IP Routing with PPP

Step 20 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for on-demand IP routing with PPP:

```
set system Central902
cd lan
set ip address 172.16.16.100
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Remote765
set bridging off
set ip address 10.32.125.4
set ip netmask 255.255.255.0
set ip routing on
set ip framing none
set ip rip update demand
set encapsulation ppp
set number 5553693
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for on-demand IP routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 10 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

On-Demand IP Routing with PPP

Step 11 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 12 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 13 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ip framing none
```

Step 14 Use the **set ip rip update** command to send IP RIP packets to the remote Cisco 765 only when a change occurs in the RIP routing table:

```
Central902:Remote765> set ip rip update demand
```

Step 15 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 16 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

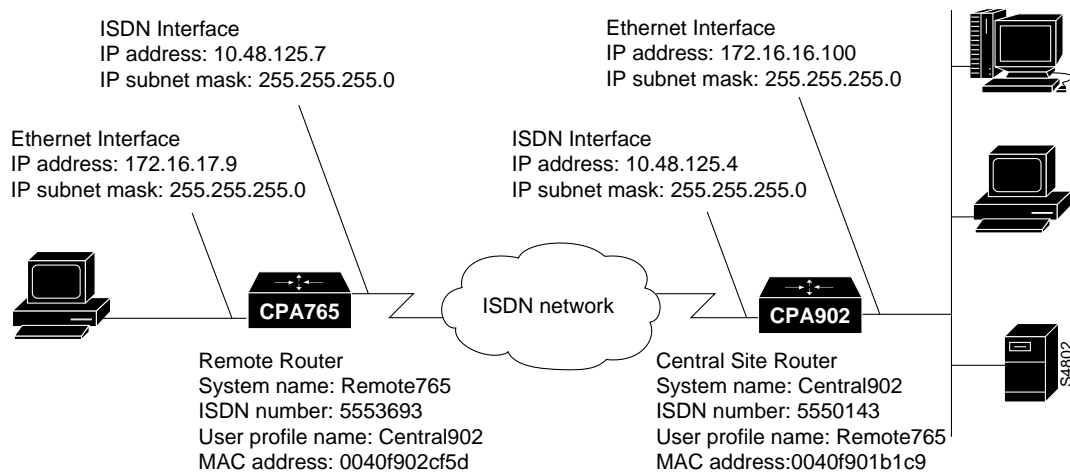
IP Static Routing with CPP Authentication

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for IP static routing with Combinet Packet Protocol (CPP) authentication.

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default setting for the system level and for all user profiles.

Figure 4-5 is an illustration of the configuration used in this example.

Figure 4-5 IP Static Routing with CPP Authentication—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IP static routing with CPP authentication:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.48.125.7
set ip netmask 255.255.255.0
set ip routing on
set profile id 0040f901b1c9
set ip route destination 172.23.161.0/24 gateway 10.48.125.4 propagate on
set number 5550143
set timeout 360
set password client
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IP static routing with CPP authentication:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 6 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 7 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 8 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

IP Static Routing with CPP Authentication

Step 11 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 12 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 13 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 14 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 15 Use the **set ip route** command to configure an static IP route to the destination network:

```
Remote765:Central902> set ip route destination 172.23.161.0/24  
gateway 10.32.125.4 propagate on
```

Step 16 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 18 Use the **set password** command to configure the router's CPP client password that will be sent to the central site CPA902 for CPP authentication:

```
Remote765:Central902> set password client
Enter new Password: <client_password>
Re-Type new Password: <client_password>
```

When entering the client password in Step 18, the characters will not be echoed on the terminal.

Note The client password must match the host password entered with the **set password** command in the CiscoPro CPA902's user profile for this router.

Step 19 Use the **reboot** command to reset the router and enable your configuration changes:

```
reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static routing with CPP authentication:

```
set system Central902
cd lan
set ip address 172.16.16.101
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Remote765
set bridging off
set ip address 10.32.125.4
set ip netmask 255.255.255.0
set ip routing on
set profile id 0040f902cf5d
```

IP Static Routing with CPP Authentication

```
set ip route destination 172.16.17.0/24 gateway 10.32.125.7 propagate on
set number 5553693
set timeout 360
set password
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static routing with CPP authentication:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.101
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```


Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 10 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 11 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 12 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 13 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 14 Use the **set ip route** command to configure a static route to the remote Cisco 765's network:

```
Central902:Remote765> set ip route destination 172.16.17.0/24 gateway  
10.32.125.7 propagate on
```

Step 15 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 16 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 17 Use the **set password** command to configure the router's CPP host password that will be compared to the remote Cisco 765's CPP client password for CPP authentication:

```
Central902:Remote765> set password host
Enter new Password: <host_password>
Re-Type new Password: <host_password>
Enter User name: Remote765
```

When entering the client password in Step 17, the characters will not be echoed on the terminal. Characters will be echoed when entering the username.

Step 18 Use the **reboot** command to reset the router and enable the configuration changes:

```
Central902:Remote765> reboot
```

IP Static Routing and Callback with CPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for IP static routing and callback using Combinet Packet Protocol (CPP).

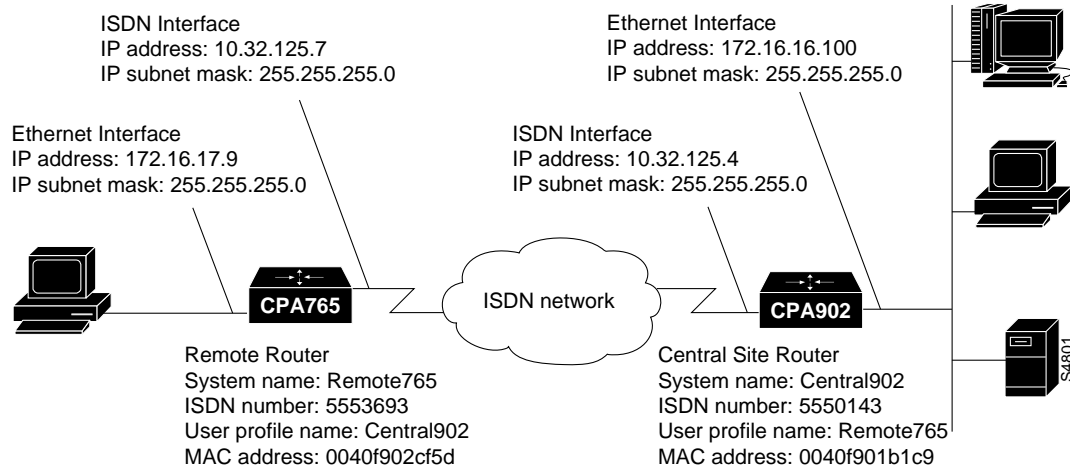


Caution The CPP callback feature should not be used as a security measure. It is intended to be used for telephone billing purposes only.

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default setting for the system level and for all user profiles.

Figure 4-6 is an illustration of the configuration used in this example.

Figure 4-6 IP Static Routing and Callback with CPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IP static routing and callback using CPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.32.125.7
set ip netmask 255.255.255.0
set ip routing on
set profile id 0040f901b1c9
set ringback 5773693
set ip route destination 0.0.0.0 gateway 10.32.125.4 propagate on
set number 5550143
```

```
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IP static routing and callback using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 6 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 7 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 8 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 11 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 12 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 13 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 14 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 15 Use the **set ringback** command to configure the router with the ISDN telephone number that the central site CPA902 will dial when it makes the callback to this router:

```
Remote765:Central902> set ringback 5773693
```

IP Static Routing and Callback with CPP

Step 16 Use the **set ip route** command to configure an unnumbered route to the destination network:

```
Remote765:Central902> set ip route destination 0.0.0.0  
gateway 10.32.125.4 propagate on
```

Step 17 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 18 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 19 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static routing and callback using CPP:

```
set system Central902  
cd lan  
set ip address 172.16.16.100  
set ip netmask 255.255.255.0  
set ip routing on  
set ip rip update periodic  
cd  
set user Remote765  
set bridging off  
set ip address 10.32.125.4  
set ip netmask 255.255.255.0  
set ip routing on  
set callback on  
set profile id 0040f902cf5d  
set ip route destination 172.16.17.8/29 gateway 10.32.125.7 propagate on  
set number 5553693  
set timeout 360  
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the CiscoPro CPA902 for IP static routing and callback using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

IP Static Routing and Callback with CPP

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 10 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 11 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 12 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 13 Use the **set callback** command to configure the router to disconnect a call received from the remote Cisco 765 and then make a call to the Cisco 765:

```
Central902:Remote765> set callback on
```

Step 14 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 15 Use the **set ip route** command to configure a static route to the remote Cisco 765's network:

```
Central902:Remote765> set ip route destination 172.16.17.8/29 gateway  
10.32.125.7 propagate on
```

Step 16 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```


Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable your configuration changes:

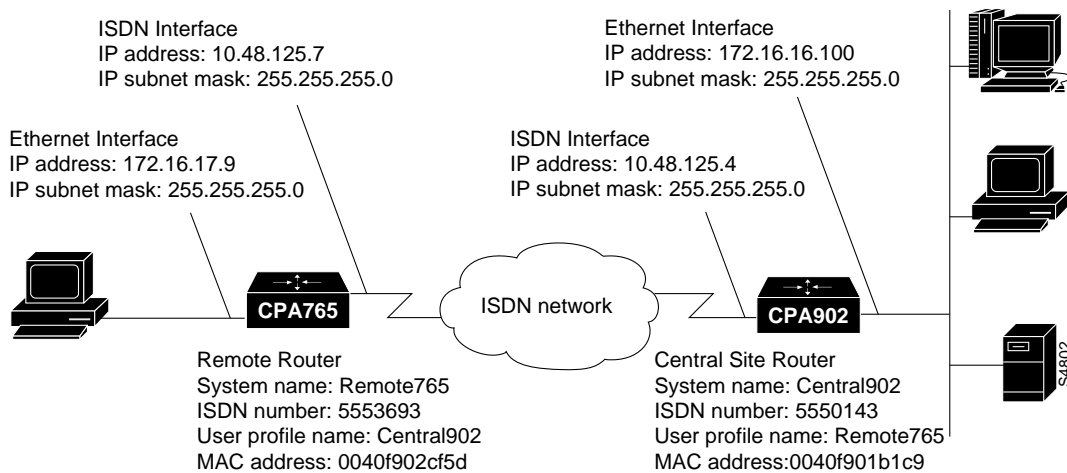
```
Central902:Remote765> reboot
```

IP Static Routing and CHAP Authentication with MLP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for IP static routing and CHAP authentication using Multilink Protocol (MLP).

Figure 4-7 is an illustration of the configuration used in this example.

Figure 4-7 IP Static Routing and CHAP Authentication with MLP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IP static routing and CHAP authentication using MLP:

```
set system Remote765
set bridging off
set ppp multilink on
set multideestination on
set ppp secret client
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.48.125.7
set ip netmask 255.255.255.0
set ip routing on
set ip framing none
set encapsulation ppp
set ip route destination 172.23.161.0/24 gateway 10.48.125.4 propagate on
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IP static routing and CHAP using MLP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set ppp multilink** command to enable MLP so that data can be sent over multiple ISDN B channels:

```
Remote765> set ppp multilink on
```

Step 4 Use the **set multideestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multideestination on
```

Step 5 Use the **set ppp password** command to configure the client secret that will be sent to any remote router that requests CHAP authentication:

```
Remote765> set ppp secret client
Enter new Password: <client_secret>
Re-Type new Password: <client_secret>
```

When you enter the client secret, the characters will not be echoed on the terminal.

Step 6 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 7 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 8 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 9 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

IP Static Routing and CHAP Authentication with MLP

Step 10 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 11 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 12 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 13 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 14 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 15 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 16 Use the **set ip framing** command to configure IP packets sent to the central site CPA902 for IPCP packet framing:

```
Remote765:Central902> set ip framing none
```

Step 17 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 18 Use the **set ip route** command to configure a static route to the destination network:

```
Remote765:Central902> set ip route destination 172.23.161.0/24  
gateway 10.32.125.4 propagate on
```

Step 19 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 20 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 21 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static routing and CHAP authentication using MLP:

```
set system Central902
set ppp multilink on
cd lan
set ip address 172.16.16.100
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Remote765
set bridging off
set ip address 10.32.125.4
set ip netmask 255.255.255.0
set ip routing on
set ip framing none
set encapsulation ppp
set ip route destination 172.16.17.8/29 gateway 10.32.125.7 propagate on
set number 5553693
set timeout 360
set ppp secret host
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for IP static routing and CHAP using MLP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **set ppp multilink** command to enable MLP so that data can be sent over multiple ISDN B channels:

```
Central902> set ppp multilink on
```

Step 3 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 4 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 5 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 6 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 7 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 8 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 9 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 10 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 11 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 12 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 13 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 14 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ip framing none
```

Step 15 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 16 Use the **set ip route** command to configure a static IP route to the remote Cisco 765's network:

```
Central902:Remote765> set ip route destination 172.16.17.8/29 gateway  
10.32.125.7 propagate on
```

Step 17 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

IP Static Routing and PAP Authentication with PPP

Step 18 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 19 Use the **set ppp password** command to configure the host secret that will be compared to a remote router's client secret during CHAP authentication:

```
Central902:Remote765> set ppp secret host
Enter new Password: <host_secret>
Re-Type new Password: <host_secret>
```

The characters will not be echoed on the terminal when you enter the host secret.

Step 20 Use the **reboot** command to reset the router and enable your configuration changes:

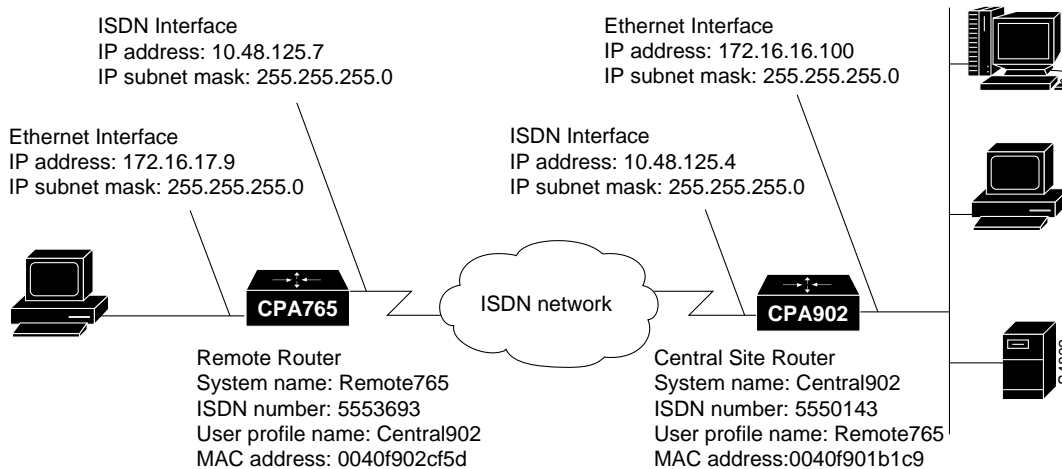
```
Central902:Remote765> reboot
```

IP Static Routing and PAP Authentication with PPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for IP static and PAP authentication routing using Point-to-Point Protocol (PPP).

Figure 4-8 is an illustration of the configuration used in this example.

Figure 4-8 IP Static Routing and PAP Authentication with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IP static routing and PAP authentication using PPP:

```
set system Remote765
set bridging off
set multidestination on
set ppp password client
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip address 10.48.125.7
set ip netmask 255.255.255.0
set ip routing on
```

IP Static Routing and PAP Authentication with PPP

```
set ip framing none
set encapsulation ppp
set ip route destination 172.23.161.0/24 gateway 10.48.125.4 propagate on
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IP static routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **set ppp password** command to configure the client secret that will be sent to any remote router that requests CHAP authentication:

```
Remote765> set ppp password client
Enter new Password: <client_password>
Re-Type new Password: <client_password>
```

When you enter the client secret, the characters will not be echoed on the terminal.

Step 5 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 6 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 7 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 8 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 9 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 10 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 11 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 12 Use the **set ip address** command to configure the IP address of the central site CPA902:

```
Remote765:Central902> set ip address 10.32.125.7
```

Step 13 Use the **set ip netmask** command to configure the IP subnet mask of the central site CPA902:

```
Remote765:Central902> set ip netmask 255.255.255.0
```

Step 14 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

IP Static Routing and PAP Authentication with PPP

Step 15 Use the **set ip framing** command to configure IP packets sent to the central site CPA902 for IPCP packet framing:

```
Remote765:Central902> set ip framing none
```

Step 16 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 17 Use the **set ip route** command to configure a static route to the destination network:

```
Remote765:Central902> set ip route destination 172.23.161.0/24  
gateway 10.32.125.4 propagate on
```

Step 18 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 19 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 20 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static routing and PAP authentication using PPP:

```
set system Central902  
cd lan  
set ip address 172.16.16.100  
set ip netmask 255.255.255.0  
set ip routing on  
set ip rip update periodic  
cd  
set user Remote765
```

```
set ip address 10.32.125.4
set ip netmask 255.255.255.0
set ip routing on
set ip framing none
set encapsulation ppp
set ip route destination 172.16.17.8/29 gateway 10.32.125.7 propagate on
set number 5553693
set bridging off
set timeout 360
set ppp password host
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for IP static routing and PAP authentication using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

IP Static Routing and PAP Authentication with PPP

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set ip address** command to configure the IP address of the remote Cisco 765:

```
Central902:Remote765> set ip address 10.32.125.4
```

Step 10 Use the **set ip netmask** command to configure the IP subnet mask of the remote Cisco 765:

```
Central902:Remote765> set ip netmask 255.255.255.0
```

Step 11 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 12 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ip framing none
```

Step 13 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 14 Use the **set ip route** command to configure a static route to the remote Cisco 765's network:

```
Central902:Remote765> set ip route destination 172.16.17.8/29 gateway  
10.32.125.7 propagate on
```

Step 15 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 16 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 18 Use the **set ppp password** command to configure the host password that will be compared to the remote router's client password during PAP authentication:

```
Central902:Remote765> set ppp password host
Enter new Password: <host_password>
Re-Type new Password: <host_password>
```

When you enter the client secret, the characters will not be echoed on the terminal.

Step 19 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

IP Static Unnumbered Routing and PAP Authentication with PPP

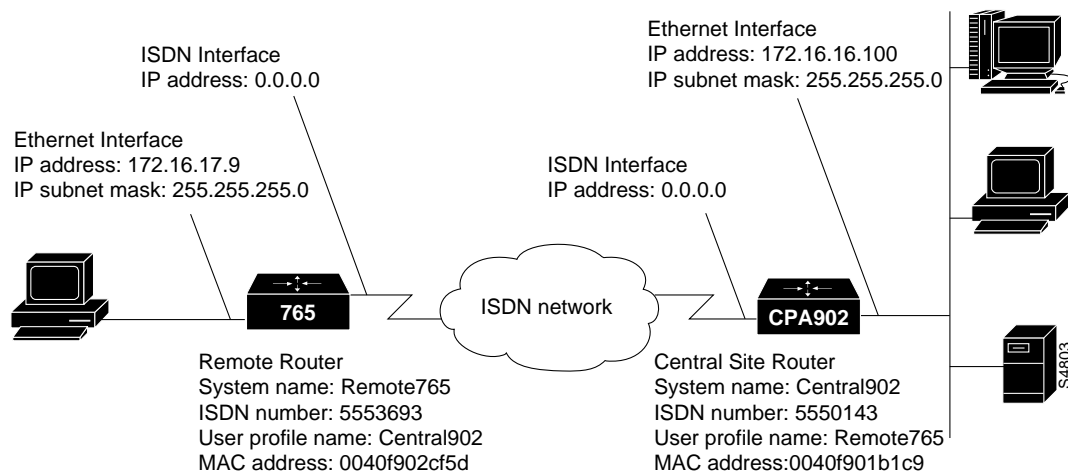
This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for IP static unnumbered routing and PAP authentication using Point-to-Point Protocol (PPP).

Note In this configuration, IP RIP packets will not broadcast the remote LAN segment because it is a Class C segmented LAN and not a true link. A static route in the CiscoPro CPA902 is required for IP RIP packets to broadcast the remote LAN segment.

IP Static Unnumbered Routing and PAP Authentication with PPP

Figure 4-9 is an illustration of the configuration used in this example.

Figure 4-9 IP Static Unnumbered Routing and PAP Authentication with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IP static unnumbered routing and PAP using PPP:

```
set system Remote765
set bridging off
set multidestination on
set ppp password client
cd lan
set ip address 172.16.17.9
set ip netmask 255.255.255.0
set ip routing on
set ip rip update periodic
cd
set user Central902
set ip routing on
```



```
set ip framing none
set encapsulation ppp
set ip route destination 0.0.0.0 gateway 0.0.0.0
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IP static unnumbered routing and PAP using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multideestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multideestination on
```

Step 4 Use the **set ppp password** command to configure the client password that will be sent to any remote router that requests PAP authentication:

```
Remote765> set ppp password client
Enter new Password: <client_password>
Re-Type new Password: <client_password>
```

When you enter the client secret, the characters will not be echoed on the terminal.

IP Static Unnumbered Routing and PAP Authentication with PPP

Step 5 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 6 Use the **set ip address** command to configure the IP address of the router's connection to the local Ethernet LAN:

```
Remote765:Lan> set ip address 172.16.17.9
```

Step 7 Use the **set ip netmask** command to configure the IP subnet mask of the router's connection to the local Ethernet LAN:66

```
Remote765:Lan> set ip netmask 255.255.255.0
```

Step 8 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Remote765:Lan> set ip routing on
```

Step 9 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Remote765:Lan> set ip rip update periodic
```

Step 10 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 11 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 12 Use the **set ip routing** command to enable IP routing to the central site CPA902:

```
Remote765:Central902> set ip routing on
```

Step 13 Use the **set ip framing** command to configure IP packets sent to the central site CPA902 for IPCP packet framing:

```
Remote765:Central902> set ip framing none
```

Step 14 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 15 Use the **set ip route** command to configure an IP unnumbered route to the central site CPA902:

```
Remote765:Central902> set ip route destination 0.0.0.0 gateway  
0.0.0.0
```

Step 16 Use the **set number** command to configure the ISDN number the router dials to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 17 Use the **set timeout** command to configure the router to terminate the ISDN connection to the central site CPA902 after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable the configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IP static unnumbered routing and PAP authentication using PPP:

```
set system Central902  
cd lan  
set ip address 172.16.16.100  
set ip netmask 255.255.255.0  
set ip routing on  
set ip rip update periodic  
cd  
set user Remote765  
set ip routing on  
set ip framing none  
set encapsulation ppp  
set ip route destination 172.16.17.8/29 gateway 172.16.17.9 propagate on  
set number 5553693  
set bridging off  
set timeout 360  
set ppp password host  
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for IP static unnumbered routing and PAP authentication using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ip address** command to configure the IP address of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip address 172.16.16.100
```

Step 4 Use the **set ip netmask** command to configure the IP subnet mask of the router’s connection to the local Ethernet LAN:

```
Central902:Lan> set ip netmask 255.255.255.0
```

Step 5 Use the **set ip routing** command to enable IP routing to the local Ethernet LAN:

```
Central902:Lan> set ip routing on
```

Step 6 Use the **set ip rip update** command to send IP RIP packets onto the local Ethernet LAN every 30 seconds:

```
Central902:Lan> set ip rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set ip routing** command to enable IP routing to the remote Cisco 765:

```
Central902:Remote765> set ip routing on
```

Step 10 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ip framing none
```

Step 11 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 12 Use the **set ip route** command to configure an IP static route to the remote Cisco 765:

```
Central902:Remote765> set ip route destination 172.16.17.8/29 gateway  
172.16.17.9 propagate on
```

Step 13 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 14 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 15 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 16 Use the **set ppp password** command to configure the host password that will be compared to the remote router's client password during PAP authentication:

```
Central902:Remote765> set ppp password host  
Enter new Password: <host_password>  
Re-Type new Password: <host_password>
```

On-Demand IPX Routing with CPP

When you enter the client secret, the characters will not be echoed on the terminal.

Step 17 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

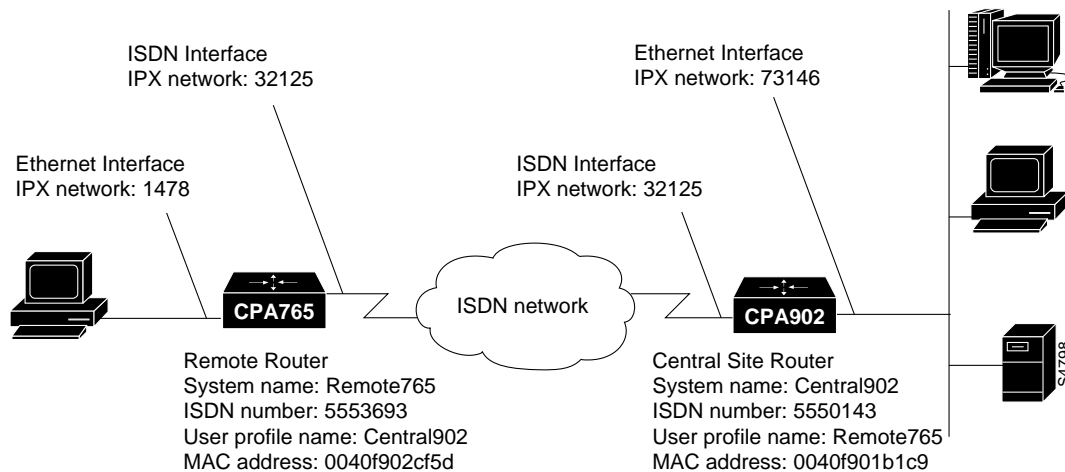
On-Demand IPX Routing with CPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for on-demand IPX routing using Combinet Packet Protocol (CPP).

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default setting for the system level and for all user profiles.

Figure 4-10 is an illustration of the configuration used in this example.

Figure 4-10 On-Demand IPX Routing with CPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IPX routing using CPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Central902
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Command Summary

Take the following steps to configure the remote Cisco 765 for on-demand IPX routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

Step 6 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Remote765:Lan> set ipx framing 802.2
```

Step 7 Use the **set ipx routing** command to enable IPX routing to the local Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

Step 8 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```


Step 11 Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

Step 12 Use the **set ipx routing** command to enable IPX routing to the central site CPA902:

```
Remote765:Central902> set ipx routing on
```

Step 13 Use the **set ipx rip update** command to send IPX RIP packets to the central site CPA902 only when changes are made to the routing tables:

```
Remote765:Central902> set ipx rip update demand
```

Step 14 Use the **set ipx spoof** command to have the router respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 15 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 16 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for on-demand IPX routing using CPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Remote765
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set profile id 0040f902cf5d
set number 5553693
set bridging off
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for on-demand IPX routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

- Step 3** Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

- Step 4** Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

- Step 5** Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

- Step 6** Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

- Step 7** Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

- Step 8** Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

- Step 9** Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

- Step 10** Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```

- Step 11** Use the **set ipx rip update** command to send IPX RIP packets to the remote Cisco 765 router only when changes are made to the routing tables:

```
Central902:Remote765> set ipx rip update demand
```

On-Demand IPX Routing with CPP

Step 12 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 13 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 14 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 15 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 16 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 17 Use the **reboot** command to reset the router and enable your configuration changes:

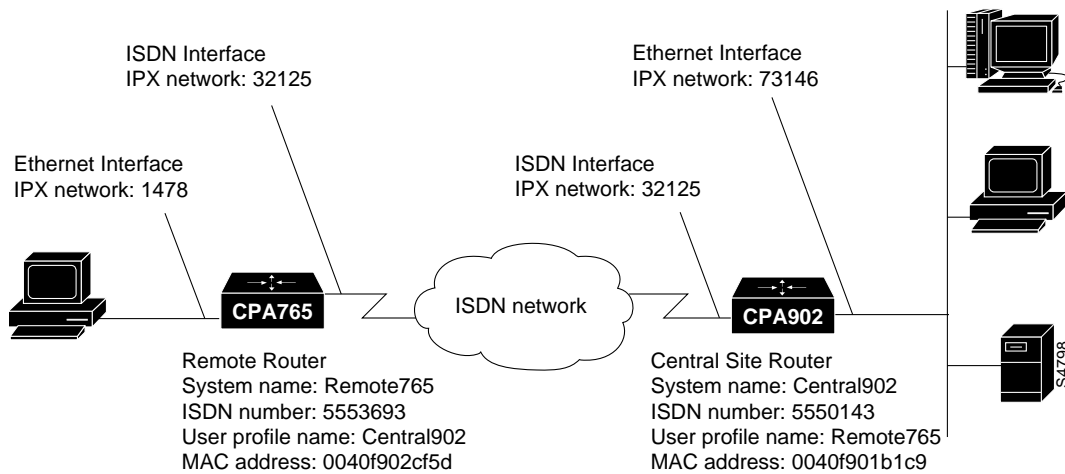
```
Central902:Remote765> reboot
```

On-Demand IPX Routing with PPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 for on-demand IPX routing using Point-to-Point Protocol (PPP).

Figure 4-11 is an illustration of the configuration used in this example.

Figure 4-11 On-Demand IPX Routing with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for on-demand IPX routing using PPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
```

On-Demand IPX Routing with PPP

```
cd
set user Central902
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set ipx framing none
set encapsulation ppp
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for on-demand IPX routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

- Step 5** Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

- Step 6** Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Remote765:Lan> set ipx framing 802.2
```

- Step 7** Use the **set ipx routing** command to enable IPX routing to the local Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

- Step 8** Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

- Step 9** Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

- Step 10** Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

- Step 11** Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

- Step 12** Use the **set ipx routing** command to enable IPX routing to the central site CPA902:

```
Remote765:Central902> set ipx routing on
```

- Step 13** Use the **set ipx rip update** command to send IPX RIP packets to the central site CPA902 only when changes are made to the routing tables:

```
Remote765:Central902> set ipx rip update demand
```

On-Demand IPX Routing with PPP

Step 14 Use the **set ipx spoof** command to have the router respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 15 Use the **set ipx framing** command to configure IPX packets sent to the central site CPA902 for Internetwork Packet Exchange Control Protocol (IPXCP) packet framing:

```
Remote765:Central902> set ipx framing none
```

Step 16 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 17 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 18 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 19 Use the **timeout** command to configure the router to disconnect the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 20 Use the **reboot** command to reset the router and enable the configuration changes:

```
Remote765:Central902> reboot
```


Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the CiscoPro CPA902 for on-demand IPX routing using PPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Remote765
set ipx network 32125
set ipx routing on
set ipx rip update demand
set ipx spoof 10
set ipx framing none
set encapsulation ppp
set number 5553693
set bridging off
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the CiscoPro CPA902 for on-demand IPX routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

On-Demand IPX Routing with PPP

- Step 3** Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

- Step 4** Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

- Step 5** Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

- Step 6** Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

- Step 7** Use the **change user** command to return to the system level:

```
Central902> cd
```

- Step 8** Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

- Step 9** Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

- Step 10** Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```

- Step 11** Use the **set ipx rip update** command to send IPX RIP packets to the remote Cisco 765 router only when changes are made to the routing tables:

```
Central902:Remote765> set ipx rip update demand
```

Step 12 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 13 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPCP framing:

```
Central902:Remote765> set ipx framing none
```

Step 14 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 15 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 16 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

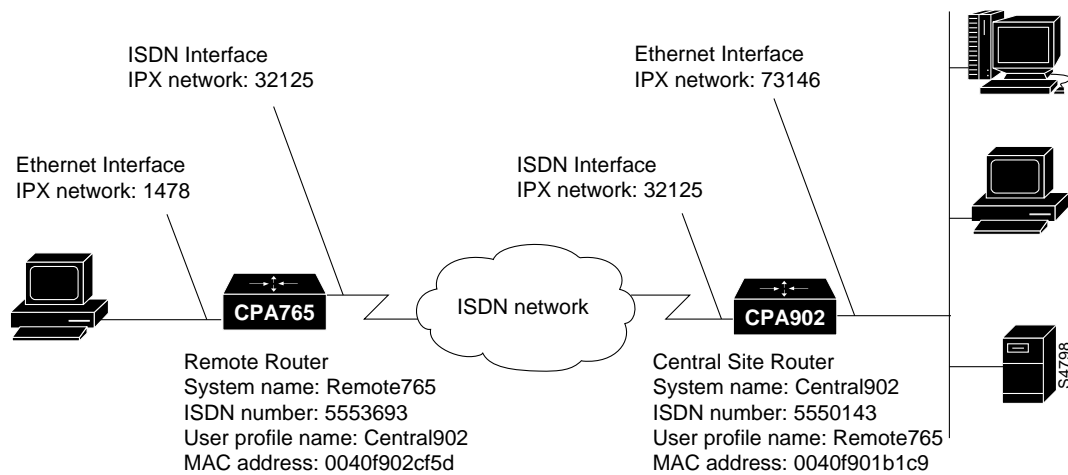
IPX Static Routing with CPP

This section describes how to configure the remote Cisco 765 and the CiscoPro CPA902 routers for IPX static routing using Combinet Packet Protocol (CPP).

Note CPP packet encapsulation is the Cisco 765 and the CiscoPro CPA902 routers' default setting for the system level and for all user profiles.

Figure 4-12 is an illustration of the configuration used in this example.

Figure 4-12 IPX Static Routing with CPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IPX static routing using CPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Central902
set ipx network 32125
set ipx routing on
set ipx rip update off
set ipx route destination 3039e670 gateway 32125:40f901b1c9
set ipx service name CORP_FS1 type 4 address 3039e670:01:0451
set ipx spoof 10
set profile id 0040f901b1c9
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IPX static routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

IPX Static Routing with CPP

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multidestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multidestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

Step 6 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Remote765:Lan> set ipx framing 802.2
```

Step 7 Use the **set ipx routing** command to enable IPX routing to the local Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

Step 8 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 11 Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

Step 12 Use the **set ipx routing** command to enable IPX routing to the central site CPA902:

```
Remote765:Central902> set ipx routing on
```

Step 13 Use the **set ipx rip update** command to prevent IPX RIP packets from being sent over the ISDN line to the central site CPA902:

```
Remote765:Central902> set ipx rip update off
```

Step 14 Use the **set ipx route** command to configure a static IPX route to the central site CPA902:

```
Remote765:Central902> set ipx route destination 3039e670
gateway 32125:40f901b1c9
```

Step 15 Use the **set ipx service** to configure a static route to the central site's file server:

```
Remote765:Central902> set ipx service name CORP_FS1 type 4 address
3039e670:01:0451
```

Step 16 Use the **set ipx spoof** command to have the router respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 17 Use the **set profile id** command to configure the MAC-layer address of the central site CPA902:

```
Remote765:Central902> set profile id 0040f901b1c9
```

Step 18 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 19 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

IPX Static Routing with CPP

Step 20 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IPX static routing using CPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Remote765
set ipx network 32125
set ipx routing on
set ipx rip update off
set ipx route destination 1478 gateway 32125:40f902cf5d
set ipx spoof 10
set profile id 0040f902cf5d
set number 5553693
set bridging off
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for IPX static routing using CPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

Step 4 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

Step 5 Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

Step 6 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

Step 10 Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```

Step 11 Use the **set ipx rip update** command to prevent IPX RIP packets from being sent over the ISDN line to the remote Cisco 765:

```
Central902:Remote765> set ipx rip update off
```

Step 12 Use the **set ipx route** command to configure a static route to the remote Cisco 765:

```
Central902:Remote765> set ipx route destination 1478  
gateway 32125:40f902cf5d
```

Step 13 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 14 Use the **set profile id** command to configure the MAC-layer address of the remote Cisco 765:

```
Central902:Remote765> set profile id 0040f902cf5d
```

Step 15 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 16 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 17 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 18 Use the **reboot** command to reset the router and enable your configuration changes:

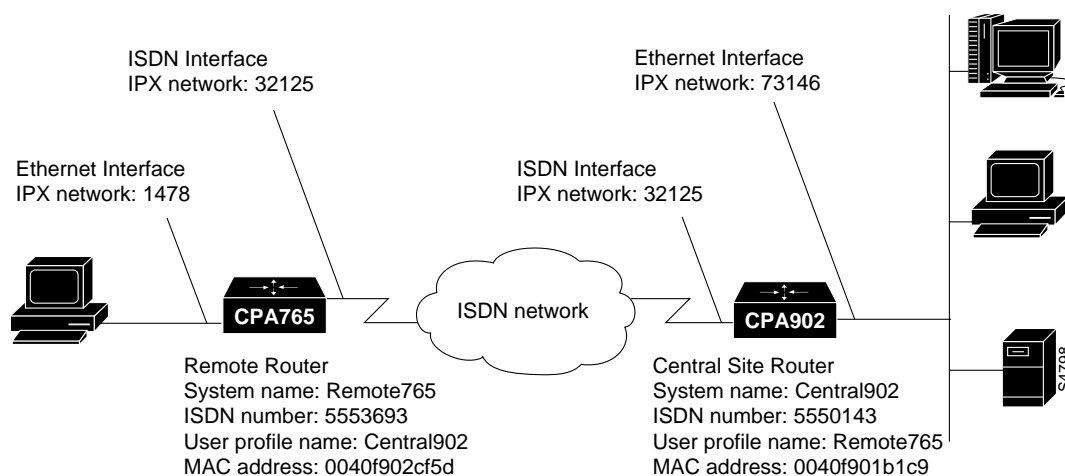
```
Central902:Remote765> reboot
```

IPX Static Routing with PPP

This section describes how to configure the remote Cisco 765 and the central site CiscoPro CPA902 routers for IPX static routing using PPP.

Figure 4-13 is an illustration of the configuration used in this example.

Figure 4-13 IPX Static Routing with PPP—Example Configuration



Remote Cisco 765 Command Summary

Following is the command summary for configuring the remote Cisco 765 for IPX static routing using PPP:

```
set system Remote765
set bridging off
set multidestination on
cd lan
set ipx network 1478
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
```

IPX Static Routing with PPP

```
cd
set user Central902
set ipx network 32125
set ipx routing on
set ipx route destination 3039e670 gateway 32125:40f901b1c9
set ipx service name CORP_FS1 type 4 address 3039e670:01:0451
set ipx spoof 10
set ipx rip update off
set ipx framing none
set encapsulation ppp
set number 5550143
set timeout 360
reboot
```

Remote Cisco 765 Configuration Instructions

Take the following steps to configure the remote Cisco 765 for IPX static routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Remote765
```

Step 2 Use the **set bridging** command to disable bridging at the system level and to disable the default profiles and any user profiles you create after entering this command:

```
Remote765> set bridging off
```

Note The Cisco 765 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the appendix “Using Profiles with Cisco 700 Series Routers.”

Step 3 Use the **set multideestination** command to enable the router to dial to multiple remote destinations:

```
Remote765> set multideestination on
```

Step 4 Use the **change user** command to configure the LAN profile:

```
Remote765> cd lan
```

Step 5 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Remote765:Lan> set ipx network 1478
```

Step 6 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Remote765:Lan> set ipx framing 802.2
```

Step 7 Use the **set ipx routing** command to enable IPX routing to the local Ethernet LAN:

```
Remote765:Lan> set ipx routing on
```

Step 8 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Remote765:Lan> set ipx rip update periodic
```

Step 9 Use the **change user** command to return to the system level:

```
Remote765:Lan> cd
```

Step 10 Use the **set user** command to create a user profile for the central site CPA902:

```
Remote765> set user Central902
```

Step 11 Use the **set ipx network** command to configure the network number for the central site LAN on which the central site CPA902 resides:

```
Remote765:Central902> set ipx network 32125
```

Step 12 Use the **set ipx routing** command to enable IPX routing to the central site CPA902:

```
Remote765:Central902> set ipx routing on
```

IPX Static Routing with PPP

Step 13 Use the **set ipx route** command to configure an IPX static route to the central site CPA902:

```
Remote765:Central902> set ipx route destination 3039e670  
gateway 32125:40f901b1c9
```

Step 14 Use the **set ipx service** command to configure an IPX static route to the central site file server:

```
Remote765:Central902> set ipx service name CORP_FS1 type 4 address  
3039e670:01:0451
```

Step 15 Use the **set ipx spoof** command to have the router respond to the local server's watchdog packets on behalf of the remote workstation:

```
Remote765:Central902> set ipx spoof 10
```

Step 16 Use the **set ipx rip update** command to prevent IPX RIP packets from being sent over the ISDN line to the central site CPA902:

```
Remote765:Central902> set ipx rip update off
```

Step 17 Use the **set ipx framing** command to configure IPX packets sent to the central site CPA902 for Internetwork Packet Exchange Control Protocol (IPXCP) packet framing:

```
Remote765:Central902> set ipx framing none
```

Step 18 Use the **set encapsulation** command to configure packets sent to the central site CPA902 for PPP packet encapsulation:

```
Remote765:Central902> set encapsulation ppp
```

Step 19 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the central site CPA902:

```
Remote765:Central902> set number 5550143
```

Step 20 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Remote765:Central902> set timeout 360
```

Step 21 Use the **reboot** command to reset the router and enable your configuration changes:

```
Remote765:Central902> reboot
```

Central Site CiscoPro CPA902 Command Summary

Following is the command summary for configuring the central site CiscoPro CPA902 for IPX static routing using PPP:

```
set system Central902
cd lan
set ipx network 73146
set ipx framing 802.2
set ipx routing on
set ipx rip update periodic
cd
set user Remote765
set ipx network 32125
set ipx routing on
set ipx rip update off
set ipx route destination 1478 gateway 32125:40f902cf5d
set ipx spoof 10
set ipx framing none
set encapsulation ppp
set number 5553693
set bridging off
set timeout 360
reboot
```

Central Site CiscoPro CPA902 Configuration Instructions

Take the following steps to configure the central site CiscoPro CPA902 for IPX static routing using PPP:

Step 1 Use the **set system** command to configure the router with a system name:

```
Router> set system Central902
```

Step 2 Use the **change user** command to configure the LAN profile:

```
Central902> cd lan
```

IPX Static Routing with PPP

Note The CiscoPro CPA902 is preconfigured with three default profiles: LAN, Internal, and Standard. For more information, refer to the chapter “Using Profiles” in the *CiscoPro CPA900 Series User Guide*.

Step 3 Use the **set ipx network** command to configure the IPX network number for the local Ethernet LAN:

```
Central902:Lan> set ipx network 73146
```

Step 4 Use the **set ipx framing** command to configure IPX packets sent onto the local Ethernet LAN for IPXCP framing:

```
Central902:Lan> set ipx framing 802.2
```

Step 5 Use the **set ipx routing** command to enable IPX routing onto the local Ethernet LAN:

```
Central902:Lan> set ipx routing on
```

Step 6 Use the **set ipx rip update** command to send IPX RIP updates onto the local Ethernet LAN every 60 seconds:

```
Central902:Lan> set ipx rip update periodic
```

Step 7 Use the **change user** command to return to the system level:

```
Central902:Lan> cd
```

Step 8 Use the **set user** command to create a user profile for the remote Cisco 765:

```
Central902> set user Remote765
```

Step 9 Use the **set ipx network** command to configure the network number for the LAN on which the remote Cisco 765 resides:

```
Central902:Remote765> set ipx network 32125
```

Step 10 Use the **set ipx routing** command to enable IPX routing to the remote Cisco 765:

```
Central902:Remote765> set ipx routing on
```


Step 11 Use the **set ipx rip update** command to prevent IPX RIP packets from being sent over the ISDN line to the remote Cisco 765:

```
Central902:Remote765> set ipx rip update off
```

Step 12 Use the **set ipx route** command to configure a static route to the remote Cisco 765:

```
Central902:Remote765> set ipx route destination 1478  
gateway 32125:40f902cf5d
```

Step 13 Use the **set ipx spoof** command to configure the router to respond to the local server's watchdog packets on behalf of the remote workstation:

```
Central902:Remote765> set ipx spoof 10
```

Step 14 Use the **set ip framing** command to configure IP packets sent to the remote Cisco 765 for IPXCP framing:

```
Central902:Remote765> set ipx framing none
```

Step 15 Use the **set encapsulation** command to configure packets sent to the remote Cisco 765 for PPP encapsulation:

```
Central902:Remote765> set encapsulation ppp
```

Step 16 Use the **set number** command to configure the ISDN telephone number the router will dial to connect to the remote Cisco 765:

```
Central902:Remote765> set number 5553693
```

Step 17 Use the **set bridging** command to disable bridging to the remote Cisco 765:

```
Central902:Remote765> set bridging off
```

Step 18 Use the **set timeout** command to terminate the ISDN connection after 360 seconds of no ISDN line activity:

```
Central902:Remote765> set timeout 360
```

Step 19 Use the **reboot** command to reset the router and enable your configuration changes:

```
Central902:Remote765> reboot
```

