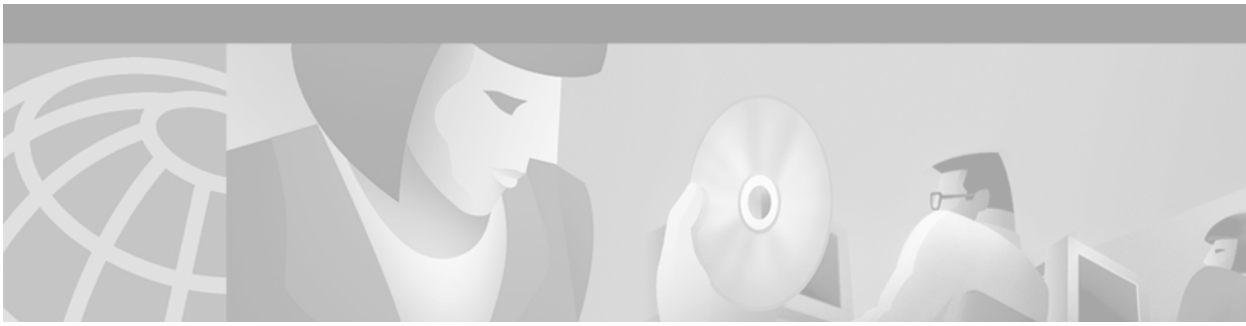

Cisco IOS Command Modes

This appendix contains summaries of the command and configuration modes used in the Cisco IOS Command-Line Interface (CLI) in Cisco IOS Release 12.2. The availability of configuration modes will depend on the feature set found in your system image and on which router platform you are using. For specific information on any particular configuration mode, see the documentation references given in the mode summaries.

This appendix lists command modes in the following categories:

- Base Command Modes
- Configuration Modes and Submodes

These lists include short summaries of the modes.

Following the configuration mode summary list, Table 26 presents the configuration mode summaries organized by router prompt, and includes examples of entering each mode.

Base Command Modes

Base command modes are used for navigating the CLI and performing basic router startup, configuration, and monitoring tasks. For more information on the base command modes, see the "Using the Command-Line Interface" chapter of this document. For details about setup mode, see the "Using Configuration Tools" chapter.

User EXEC Mode

The default command mode for the CLI is user EXEC mode. The EXEC commands available at the user EXEC level are a subset of those available at the privileged EXEC level. In general, the user EXEC commands allow you to connect to remote devices, change terminal settings on a temporary basis, perform basic tests, and list system information. The prompt for user EXEC mode is the name of the device followed by an angle bracket: `Router>`.

Privileged EXEC Mode

Privileged EXEC mode is password protected, and allows the use of all EXEC mode commands available on the system. To enter privileged EXEC mode from user EXEC mode, use the **enable** command. Privileged EXEC mode allows access to global configuration mode through the use of the **enable** command. The privileged EXEC mode prompt consists of the devices's host name followed by the pound sign: `Router#` .

Global Configuration Mode

Global configuration commands generally apply to features that affect the system as a whole, rather than just one protocol or interface. You can also enter any of the specific configuration modes listed in the following section from global configuration mode.

To enter global configuration mode, use the **configure terminal** privileged EXEC command. The router prompt for global configuration mode is indicated by the term *config* in parenthesis: `Router(config)#` .

ROM Monitor Mode

If your router or access server does not find a valid system image to load, the system will enter read-only memory (ROM) monitor mode. ROM monitor (ROMMON) mode can also be accessed by interrupting the boot sequence during startup. From ROM monitor mode, you can boot the device or perform diagnostic tests.

To enter ROM monitor mode, use the Break key (Cntl-C) during the first 60 seconds of start-up. The router prompt is indicated by an angle bracket by itself or the term ROMMON followed by a number and an angle bracket: `>` or `rommon1>` .

Setup Mode

Setup mode is not, strictly speaking, a command mode. Setup mode is rather an interactive facility that allows you to perform first-time configuration and other basic configuration procedures on all routers. The facility prompts you to enter basic information needed to start a router functioning. Setup mode uses the System Configuration Dialog, which guides you through the configuration process. It prompts you first for global parameters and then for interface parameters. The values shown in brackets next to each prompt are the default values. For more information on setup mode, see the "Using AutoInstall and Setup" chapter of this book.

To enter setup mode after the router has been configured for the first time, use the **setup** command in privileged EXEC mode. The router prompt for setup mode is indicated by a configuration question, followed by the default answer in brackets and a colon (:), as shown in the following example:

```
Continue with configuration dialog? [yes]:
Enter host name [Router]:
```

Configuration Modes and Submodes

Configuration modes are entered from global configuration mode. Configuration submodes are entered from other configuration modes. Configuration subsubmodes are configuration modes entered from configuration submodes.

The following configuration mode short summaries list the basic characteristics of each mode and where you can find details on the configuration tasks associated with each mode. Configuration modes and configuration submodes are listed here alphabetically.

All prompts listed are shown as they appear after the host name prompt on the system (for example, if the host name is "Router", the prompt for CA Identity configuration mode would be `Router(ca-identity)#`).

On most systems, a field of 30 characters is used for the host name and the prompt. Note that the length of your host name may cause longer configuration mode prompts to be truncated. For example, the full prompt for service profile configuration mode is:

```
(config-service-profile)#
```

However, if you are using the host-name of "Router", you will only see the following prompt (on most systems):

```
Router(config-service-profil)#
```

If the hostname is longer, you will see even less of the prompt:

```
Basement-rtr2(config-service)#
```

Keep this behavior in mind when assigning a name to your system (using the **hostname** global configuration command). If you expect that users will be relying on mode prompts as a CLI navigation aid, you should assign host names of no more than nine characters.

AAA Preauthentication Configuration Mode

Prompt: (config-preauth)

To enter AAA preauthentication configuration mode from global configuration mode, use the **aaa preauth** command. AAA preauthentication configuration mode allows you to configure preauthentication on the basis of the called number, the calling number, and the call type. This mode provides access to the following commands: **group**, **clid**, **ctype**, **dnis**, and **dnis bypass**.

For details, refer to the "Configuring Authentication" chapter of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Access List Configuration Mode

See "Standard Named Access List (NACL) Configuration Mode" and "Extended Named Access List (NACL) Configuration Mode".

Access-point Configuration Mode

Prompt: (config-access-point)

To enter access-point configuration mode from access-point list configuration mode, use the **access-point** command. Use access-point configuration mode to specify the configuration characteristics of a GGSN access point.

For details, refer to the "Configuring Network Access to the GGSN" chapter in the "General Packet Radio Service (GPRS)" part of the Release 12.2 *Cisco IOS Mobile Wireless Configuration Guide*.

Access-point List Configuration Mode

Prompt: (config-ap-list)

To enter access-point list configuration mode from global configuration mode, use the **gprs access-point-list** command. Use access-point list configuration mode to define the general packet radio service (GPRS) access point list on a Gateway GPRS Support Node (GGSN).

The following submode is accessible from access-point list configuration mode:

- Access-point Configuration Mode

For details, refer to the "Configuring Network Access to the GGSN" chapter in the "General Packet Radio Service (GPRS)" part of the Release 12.2 *Cisco IOS Mobile Wireless Configuration Guide*.

Address Family Configuration Mode

Prompt: (config-router-af)

To enter address family configuration mode from router configuration mode, use the **address-family** command. Within this mode, you can configure address-family specific parameters for routing protocols, such as BGP, RGP, and static routing, that can accommodate multiple Layer 3 address families. The address family configuration mode commands include the **neighbor-activate** command and the **neighbor as-override** command. To exit address family configuration mode, use the **exit-address-family** command.

For details, refer to the "Configuring Multiprotocol Label Switching" chapter of the Release 12.2 *Cisco IOS Switching Services Configuration Guide*.

ALPS Circuit Configuration Mode

Prompt: (config-alps-circuit)

To enter Airline Product Set (ALPS) circuit configuration mode from global configuration mode, use the **alps circuit** command. Within ALPS circuit configuration mode, you can configure the tunneling mechanism that transports airline protocol data across a Cisco router-based TCP/IP network to an X.25-attached mainframe. This feature provides connectivity between agent set control units (ASCUs) and a mainframe host that runs the airline reservation system database.

For details, refer to the "Configuring the Airline Product Set" chapter of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

ALPS ASCU Configuration Mode

Prompt: (config-alps-ascu) or (config-if-alps-ascu)

To enter Airline Product Set (ALPS) Agent Set Control Unit (ASCU) configuration mode from interface configuration mode, use the **apls ascu** command. Use ALPS ASCU configuration mode to configure ASCU characteristics on a specific interface.

For details, refer to the "Configuring the Airline Product Set" chapter of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

Annex G Configuration Mode

Prompt: (config-annexg)

To enter Annex G Configuration Mode from global configuration mode, use the **call-router h323-annexg** command. Use Annex G Configuration Mode to configure an H.323 annex G border element (BE).

For details, refer to the 12.2(4)T "Cisco H.323 Scalability and Interoperability Enhancements" feature module.

The following example configures an Annex G BE that advertises both static and dynamic descriptors to its neighbors:

```
Router(config)# call-router h323-annexg be20
Router(config-annexg)# advertise all
```

The following submodes are accessible from Annex G Configuration Mode:

- Annex G Neighbor BE Configuration Mode

APPN Configuration Modes

Prompt: (appn)

The Advanced Peer-to-Peer Networking (APPN) configuration modes and configuration submodes were removed from the software in Cisco IOS Release 12.1. The configuration functionality that was previously provided by the APPN configuration modes has been replaced with SNA Switching Services (SNASw) functionality. SNA Switching uses existing configuration modes.

For details, refer to the "Configuring SNA Switching Services" chapter of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

ATM VC Configuration Mode

Prompt: (config-if-atm-vc)

To enter ATM virtual circuit (VC) configuration mode from interface configuration mode or subinterface configuration mode, use the **pvc** command or the **svc nsap** command. Use ATM VC configuration mode to configure VC characteristics for an ATM permanent virtual circuit (PVC) or switched virtual circuit (SVC).

For details, refer to the "Configuring ATM" chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

ATM VC Bundle Configuration Mode

Prompt: (config-atm-bundle)

To enter ATM virtual circuit (VC) bundle configuration mode from interface configuration mode or subinterface configuration mode, use the **bundle** command. Use ATM bundle configuration mode to create and assign attributes and parameters to a bundle and all of its member virtual circuits (VCs).

The following configuration submode is accessible from ATM VC bundle configuration mode:

- ATM VC Bundle-Member Configuration Mode

For details, refer to the “Configuring IP to ATM Class of Service” chapter in the “Quality of Service Solutions” part of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

ATM VC Bundle-Member Configuration Mode

Prompt: (config-if-atm-member)

To enter ATM virtual circuit (VC) bundle-member configuration mode from ATM VC bundle configuration mode, use the **pvc-bundle** command. Use ATM VC bundle-member configuration mode to add a Virtual Circuit (VC) to a bundle as a bundle member, and configure the characteristics of that bundle member.

For details, refer to the “Configuring IP to ATM Class of Service” chapter in the “Quality of Service Solutions” part of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

ATM VC CES Configuration Mode

Prompt: (config-if-ces-vc)

To enter ATM virtual circuit (VC) circuit emulation service (CES) configuration mode from interface configuration mode, use the **pvc** or **svc** commands with the **ces** keyword. Use ATM VC CES configuration mode to configure VC parameters for an ATM CES permanent virtual circuit (PVC) or switched virtual circuit (SVC).

For details, refer to the “Configuring ATM” chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

ATM VC Class Configuration Mode

Prompt: (config-vc-class)

To enter ATM virtual circuit (VC) class configuration mode from global configuration mode, use the **vc-class atm** command.

Use ATM VC class configuration mode to configure a set of VC parameters that will apply to an ATM main interface, subinterface, PVC, or SVC. For example, you can create a VC class that contains VC parameter configurations that you will apply to a particular PVC or SVC. You might create another VC class that contains VC parameter configurations that you will apply to all VCs configured on a particular ATM main interface or subinterface.

For details, refer to the “Configuring ATM” chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

ATM-FR VC Group Configuration Mode

Prompt: (config-vc-group)

To enter ATM-Frame Relay (FR) virtual circuit (VC) group configuration mode from global configuration mode, use the **vc-group** command. Use ATM VC group configuration mode to map Frame Relay DLCIs to ATM VC groups for Frame Relay-ATM interworking.

For details, refer to the **vc-group** command documentation in the “Frame Relay-ATM Interworking Commands” chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Command Reference*.

ATM PVC Range Configuration Mode

Prompt: (config-if-atm-range)

To enter ATM permanent virtual circuit (PVC) range configuration mode from subinterface configuration mode, use the **range** [*range-name*] **pvc** command. Use PVC range configuration mode to configure a number of ATM PVCs all at once rather than configuring the PVCs individually. PVC range configuration applies to multi-point sub-interfaces only.

For details, refer to the "Configuring Broadband Access: PPP and Routed Bridge Encapsulation" chapter in the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

ATM PVC-in-range Configuration Mode

Prompt: (cfg-if-atm-range-pvc)

To enter ATM permanent virtual circuit (PVC)-in-range configuration mode from ATM PVC range configuration mode, use the **pvc-in-range** command. Use ATM PVC-in-range configuration mode to explicitly configure an individual ATM PVC within a PVC range.

For details, refer to the "Configuring Broadband Access: PPP and Routed Bridge Encapsulation" chapter in the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

CA Identity Configuration Mode

Prompt: (ca-identity)

To enter certificate authority (CA) identity configuration mode from global configuration mode, use the **crypto ca identity** command. Use CA identity configuration mode to specify characteristics for certificate authorities.

For details, refer to the "Configuring Certification Authority Interoperability " chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

CA Trusted-Root Configuration Mode

Prompt: (ca-root)

To enter certificate authority (CA) trusted-root configuration mode from global configuration mode, use the **crypto ca trusted-root** command. Use CA trusted-root configuration mode to specify the source for a root certificate.

For details, refer to the "Configuring Certification Authority Interoperability " chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Call Discriminator Configuration Mode

See (Resource-Pool) Call Discriminator Profile Configuration Mode.

Called-Group Configuration Mode

See Dialer DNIS Group Configuration Mode.

CASA Configuration Mode

Prompt: (config-casa)

To enter Cisco Appliance Services architecture (CASA) configuration mode from global configuration mode, use the **ip casa** command. Use CASA configuration mode to configure CASA listen ports, such as the MNLB forwarding agent.

For details, refer to the "Configuring IP Services" chapter in the "IP Addressing and Services" part of the Release 12.2 *Cisco IOS IP Configuration Guide*. For further background information, refer to the white paper "High Availability Web Services" and the *MultiNode Load Balancing Feature Set for LocalDirector User Guide* (available on Cisco.com).

CAS Custom Configuration Mode

Prompt: (config-ctrl-cas)

To enter CAS custom configuration mode from controller configuration mode, use the **cas-custom** command. Use CAS custom configuration mode to customize E1 R2 signaling parameters for a particular E1 channel group on a channelized E1 line.

Some switches require you to fine tune your R2 settings. However, do not tamper with these special signaling commands unless you understand exactly how your switch will be effected.

For details, refer to the "Configuring ISDN PRI" chapter in the "Signaling Configuration" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

CES Configuration Mode

Prompt: (config-ces)

To enter circuit emulation service (CES) configuration mode from global configuration mode, use the **ces** command. Use CES configuration mode to configure CES parameters such as the CES clock.

For details, refer to the "Configuring ATM" chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

Certificate Chain Configuration Mode

Prompt: (config-cert-chain)

To enter certificate chain configuration mode from global configuration mode, use the **crypto ca certificate chain** command. Use certificate chain configuration mode to delete certificates using the **no certificate** command.

For details, refer to the "Configuring Certification Authority Interoperability " chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Class Map Configuration Mode

See QoS Class-Map Configuration Mode.

Controller Configuration Mode

Prompt: (config-controller)

To enter controller configuration mode from global configuration mode, use the **controller** command. Use controller configuration mode to configure channelized T1 or E1.

The following submode is accessible through controller configuration mode:

- CAS Custom Configuration Mode

For details, refer to the "Configuring ISDN PRI" chapter in the "Signaling Configuration" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

Crypto Map Configuration Mode

Prompt: (config-crypto-map)

To enter crypto map configuration mode from global configuration mode, use the **cypto map** command. Use crypto map configuration mode to create or alter the definition of a crypto-map. Crypto-maps are part of an authentication and encryption router configuration.

For details, refer to the "Configuring IPSec Network Security " chapter in the Release 12.2 *Cisco IOS Security Configuration Guide*.

Crypto Transform Configuration Mode

Prompt: (config-crypto-trans)

To enter crypto transform configuration mode from global configuration mode, use the **crypto ipsec transform-set** command. Use crypto transform configuration mode to change the initialization vector length for the esp-rfc1829 transform, or to change the transform-set to tunnel or transport mode.

For details, refer to the "Configuring IPSec Network Security" chapter in the Release 12.2 *Cisco IOS Security Configuration Guide*.

Customer Profile Configuration Mode

See (Resource-Pool) Customer Profile Configuration Mode.

DHCP Pool Configuration Mode

Prompt: (config-dhcp)

To enter DHCP pool configuration mode from global configuration mode, use the **ip dhcp pool** command. Use DHCP pool configuration mode to configure DHCP pool parameters, such as the IP subnet number and the default router list.

For details, refer to the "Configuring DHCP" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*.

Dial Peer Voice Configuration Mode

Prompt: (config-dialpeer)

To enter dial peer voice configuration mode from global configuration mode, use the **dial peer voice** command. Use dial-peer configuration mode to configure dial peers for Voice over IP, Voice over ATM, Voice over Frame Relay, and Voice over HDLC.

For details, refer to the chapters on the above technologies in the "Voice" part of the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Dial Peer COR List Configuration Mode

Prompt: (config-cor)

To enter dial peer class of restrictions (COR) list configuration mode from global configuration mode, use the **dial-peer cor list** *list-name* command. Use dial peer COR list configuration mode to add members to the list of restrictions.

For details, refer to the **dial peer cor list** command description in the Release 12.2 *Cisco IOS Dial Technologies Command Reference*.

Dialer DNIS Group Configuration Mode

Prompt: (config-dnis-group)

To enter dialer called group configuration mode from global configuration mode, use the **dialer dnis group** command. Use dialer called group configuration mode to add a DNIS number to a dialer-called-group (DNIS group). (DNIS groups can be used to accept or reject calls when used with other Cisco software features, such as resource pool management.)

For details, refer to the description of the **dialer dnis group** command in the Release 12.2 *Cisco IOS Dial Technologies Command Reference*.

DLUR Configuration Mode

See TN3270 DLUR Configuration Mode.

DNIS Group Configuration Mode

See Dialer DNIS Group Configuration Mode.

Extended Named Access List (NACL) Configuration Mode

Prompt: (config-ext-nacl)

To enter extended named access list configuration mode from global configuration mode, use the **ip access-list** or **ipx access list** command. Use access-list configuration mode to create a named IP or IPX access list.

For information on creating a named IP access list, refer to the "Configuring IP Services" chapter in the "IP Addressing and Services" part of the Release 12.2 *Cisco IOS IP Configuration Guide*. For information on creating a named IPX access list, refer to the "Configuring Novell IPX" chapter in the Release 12.2 *Cisco IOS AppleTalk and Novell IPX Configuration Guide* .

Frame Relay DLCI Configuration Mode

Prompt: (config-fr-dlci)

To enter Frame Relay DLCI configuration mode from interface configuration mode, use the **frame-relay interface-dlci** command. Use Frame Relay DLCI configuration mode to assign a Voice over Frame Relay (VoFR) FRF.11 encapsulation to a Frame Relay DLCI using the **vofr** Frame Relay DLCI configuration command.

For details, refer to the **frame-relay interface-dlci**, **frame-relay interface-dlci switched**, and **vofr** command documentation in the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide* and the Release 12.2 *Cisco IOS Voice, Video, and Fax Command Reference.*

Frame Relay Congestion Management Configuration Mode

Prompt: (config-fr-congest)

To enter Frame Relay congestion management configuration mode from interface configuration mode, use the **frame-relay congestion-management** command. Use Frame Relay congestion management configuration mode to configure Frame Relay congestion management parameters for switched PVCs on a Frame Relay interface.

For details, refer to the "Configuring Frame Relay" chapter in the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

FRF.5 / FRF.8 Configuration Mode

Prompt: (config-frf5) or (config-frf8)

To enter FRF.5 or FRF.8 configuration mode from global configuration mode, use the **connect** command. Use FRF configuration mode to create a connection between a Frame Relay DLCI and an ATM PVC, to configure Frame Relay DE field mapping, or to set ATM CLP fields.

For details, refer to the **connect** command documentation in the "Configuring Frame Relay-ATM Interworking" chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

Gatekeeper Configuration Mode

Prompt: (config-gk)

Use gatekeeper configuration mode to configure a Cisco 2500 series, Cisco 3620, Cisco 3640, or Cisco MC3810A router as a multimedia conference manager Gatekeeper. On these platforms, use the **gatekeeper** command in global configuration mode to enter gatekeeper configuration mode.

For details, refer to the "Configuring Gatekeepers (Multimedia Conference Manager)" chapter in the "Voice" part of the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*. For additional details, refer to the 12.0(3)T "Multimedia Conference Manager" feature module.

Gateway Configuration Mode

Prompt: (config-gateway)

To enter gateway configuration mode from global configuration mode, use the **gateway** command. Use gateway configuration mode to configure gateway operating characteristics, such as security.

For details, refer to the "Configuring Voice over IP" chapter in the "Voice" part of the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Hex Input Mode

See Public-Key Hex Input Configuration Mode.

HTTP Raw Request Configuration Mode

See SAA HTTP Raw Request Configuration Mode.

Hub Configuration Mode

Prompt: (config-hub)

To enter hub configuration mode from global configuration mode, use the **hub** command. Use hub configuration mode to configure hub functionality for an Ethernet interface on the Cisco 2500 series.

For details, refer to the the "Configuring LAN Interfaces" chapter in the Release 12.2 *Cisco IOS Interface Configuration Guide*.

IBM Channel Configuration Mode

IBM channel configuration mode is the same as interface configuration mode. Enter interface channel configuration mode from global configuration mode by using the **interface channel** form of the interface command.

For details, refer to the "Configuring Cisco Mainframe Channel Connection (CMCC) Adapters" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

IBM Channel Internal Adapter Configuration Mode

Prompt: (cfg-adap-*type n-m*)

To enter IBM channel internal adapter configuration mode from IBM channel internal LAN interface configuration mode, use the **adapter** command. Use internal adapter configuration mode to configure the link characteristics for the internal LAN adapter and name the internal LAN adapter. To configure an internal adapter interface, you must first use the **bridge-group** internal LAN configuration command or the **source-bridge** internal LAN configuration command to configure bridging type.

For details, refer to the **adapter** command documentation in the "Cisco Mainframe Channel Connection (CMCC) Commands" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Command Reference, Volume 2*.

IBM Channel Internal LAN Interface Configuration Mode

Prompt: (cfg-lan-*type n*)

To enter internal LAN configuration mode from interface configuration mode, use the **lan** command. Use the IBM channel internal LAN configuration mode to configure an internal LAN on a CIP interface and configure Cisco Systems Network Architecture (CSNA) parameters.

The following configuration mode is accessible through internal LAN configuration mode:

- IBM Channel Internal Adapter Configuration Mode

For details, refer to the "Configuring Cisco Systems Network Architecture (CSNA) and Cisco Multipath Channel (CMPC)" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

Interface Configuration Mode

Prompt: (config-if)

To enter interface configuration mode from global configuration mode, use an **interface** command. Many features are enabled on a per-interface basis. Subinterface configuration mode is accessible through interface configuration mode.

In addition to subinterface configuration mode, the following configuration submodes are accessible through interface configuration mode:

- ATM VC Configuration Mode
- ATM VC Bundle Configuration Mode
- ATM VC Bundle-Member Configuration Mode
- Frame Relay DLCI Configuration Mode
- Frame Relay Congestion Management Configuration Mode
- IP Host Backup Configuration Mode
- IBM Channel Configuration Mode
- IBM Channel Internal LAN Interface Configuration Mode
  - IBM Channel Internal Adapter Configuration Mode
- RLM Group Configuration Mode
  - RLM Device Configuration Mode

Note Many configuration modes available through interface configuration mode are also available in subinterface configuration mode.

IP Host Backup Configuration Mode

Prompt: (config-if-path)

To enter IP host backup configuration mode from interface configuration mode, use the **path** command. IP host backup mode is used to configure the IP host backup paths on an interface.

For details, refer to the descriptions of the **path**, **claw**, and **offload** commands in the "CLAW and TCP/IP Offload Commands" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Command Reference, Volume 2*.

IPv6 Access List Configuration Mode

Prompt: (config-ipv6-acl)

Introduced in "IPv6 Extended ACL Support," 12.2(13)T

To enter IPv6 access list configuration mode from global configuration mode, use the ipv6 access-list command. Use the IPv6 access list configuration mode to specify the permit and deny parameters for an IPv6 access list.

For details, refer to the *Implementing Security for IPv6* documentation module at:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122newft/122t/122t13/ipv6/ipv6imp/sa_secv6.htm

The following example configures an IPv6 access list named outbound that defines HTTP access to be restricted to certain hours during the day, and to log any activity outside of the permitted hours.

```
Router(config)# time-range lunchtime
Router(config)# periodic weekdays 12:00 to 13:00
Router(config)# ipv6 access-list OUTBOUND
Router(config-ipv6-acl)# permit tcp any any eq www time-range lunchtime
Router(config-ipv6-acl)# deny tcp any any eq www log-input
Router(config-ipv6-acl)# permit tcp 2000:1::/64 any
Router(config-ipv6-acl)# permit udp 2000:1::/64 any
```

The ipv6 access-list command changed its syntax in Cisco IOS Release 12.2(13)T as the IPv6 access list configuration mode was added. Previous T train releases contained the permit and deny keywords, and associated arguments, within the ipv6 access-list command syntax. Examples of the syntax in the previous releases are documented in the *Implementing Security for IPv6* module. If an IPv6 access list configuration from a previous release is used in Cisco IOS Release 12.2(13)T, the configuration is translated to use the new IPv6 access list configuration mode.

IP VPN Routing/Forwarding (VRF) Instance Configuration Mode

See VRF Configuration Mode.

IPX Router Configuration Mode

Prompt: (config-ipx-router)

To enter Novell Internet Packet Exchange (IPX) router configuration mode from global configuration mode, use the **ipx router** command. Use IPX router configuration mode to configure IPX routing characteristics, such as route distribution. Note that IPX must first be enabled using the **ipx routing** command.

For details, refer to the "Configuring Novell IPX" chapter in the Release 12.2 *Cisco IOS AppleTalk and Novell IPX Configuration Guide* .

ISAKMP Policy Configuration Mode

Prompt: (config-isakmp)

To enter Internet Security Association and Key Management Protocol (ISAKMP) policy configuration mode from global configuration mode, use the **crypto isakmp policy** command. Use ISAKMP to define an Internet Key Exchange (IKE) policy (ISAKMP is a security protocol implemented by IKE). IKE policies define a set of parameters to be used during the IKE negotiation.

For details, refer to the "Configuring Internet Key Exchange Security Protocol" chapter of the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Key-Chain Configuration Mode

Prompt: (config-keychain)

To enter key-chain configuration mode from global configuration mode, use the **keychain** command. Use key-chain configuration mode to configure authentication keys.

The following submode is accessible though key-chain configuration mode:

- Key-Chain Key Configuration Mode

For details, refer to the "Managing Authentication Keys" section in the "Configuring IP Routing Protocol-Independent Features" chapter of the Release 12.2 *Cisco IOS IP Configuration Guide*.

Key-Chain Key Configuration Mode

Prompt: (config-keychain-key)

To enter key-chain key configuration mode from key-chain configuration mode, use the **key** command. Use key-chain key configuration mode to configure a specific authentication key in a key-chain.

For details, refer to the "Managing Authentication Keys" section in the "Configuring IP Routing Protocol-Independent Features" chapter of the Release 12.2 *Cisco IOS IP Configuration Guide*.

LANE Database Configuration Mode

Prompt: (lane-config-database)

To enter LAN emulation (LANE) database configuration mode from global configuration mode, use the **lane database** command.

A LANE database contains entries that bind an emulated LAN name to the ATM address of the LANE server, bind LANE client MAC addresses to an emulated LAN name, and bind LANE client ATM address templates to an emulated LAN name.Use LANE database configuration mode to create entries for a specified database.

For details, refer to the “Configuring LAN Emulation” chapter in the “LAN Emulation” part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide*.

Line Configuration Mode

Prompt: (config-line)

To enter line configuration mode from global configuration mode, use a form of the **line** command. Use line configuration mode to modify the operation of an auxiliary, console, physical, or virtual terminal line. Line configuration commands always follow a **line** command, which defines a line number. These commands are generally used to connect to remote routers or access servers, change terminal parameter settings either on a line-by-line basis or for a range of line, and set up the auxiliary port modem configuration to support dial-on-demand routing (DDR).

For common line configuration tasks, refer to the “Modem and Dial Shelf Configuration and Management” part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

Listen-Point Configuration Mode

See TN3270 Listen-Point Configuration Mode.

Map Class Configuration Mode

See Static Maps Class Configuration Mode.

Map-List Configuration Mode

See Static Maps List Configuration Mode.

Modem Pool Configuration Mode

Prompt: (config-modem-pool)

To enter modem pool configuration mode from global configuration mode, use the **modem-pool** command. A modem pool is a group of modems inside an access server that are assigned a single dialed number identification service number (DNIS). Use modem pool configuration mode to create multiple pools of physical modems, assign unique DNIS numbers to each modem pool, and set maximum simultaneous connect limits.

For details, refer to the "Managing Modems" chapter in the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

MPOA Client (MPC) Configuration Mode

Prompt: (mpoa-client-config)

To enter Multiprotocol over ATM (MPOA) client (MPC) configuration mode from global configuration mode, use the **mpoa client config name** command. Use MPOA client configuration mode to optionally change MPOA client operating parameters.

For details, refer to the "Configuring the Multiprotocol over ATM Client" chapter in the "LAN Emulation" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide*.

MPOA Server (MPS) Configuration Mode

Prompt: (mpoa-server-config)

To enter Multiprotocol over ATM (MPOA) server configuration mode from global configuration mode, use the **mpoa server config name** command. Use MPOA server configuration mode to optionally change MPOA server operating parameters.

For details, refer to the "Configuring the Multiprotocol over ATM Server" chapter in the "LAN Emulation" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide*.

MRM Manager Configuration Mode

Prompt: (config-mrm-manager)

To enter Multicast Routing Monitor (MRM) manager configuration mode from global configuration mode, use the **ip mrm manager** command. Use MRM manager configuration mode to configure a router interface to be a Manager for a MRM test. MRM manager configuration mode commands also configure beacon message characteristics, Test Sender parameters, and Test Receiver parameters.

For details, refer to the "Using IP Multicast Tools" chapter of the Release 12.2 *Cisco IOS IP Configuration Guide*.

Policy-Map Configuration Mode

See QoS Policy-Map Configuration Mode and QoS Policy-Map Class Configuration Mode.

Poll-Group Configuration Mode

See System Controller Poll-Group Configuration Mode.

Public-Key Chain Configuration Mode

Prompt: (config-pubkey-c)

To enter public key chain configuration mode from global configuration mode, use the **crypto key pubkey-chain rsa** command. Use public key chain configuration mode to manually specify other IPSec peers' RSA or DSS public keys.

From public-key chain configuration mode, you can enter the following submodes:

- Public-Key Key Configuration Mode
  - Public-Key Hex Input Configuration Mode

For details, refer to the "Configuring Internet Key Exchange Security Protocol" chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Public-Key Key Configuration Mode

Prompt: (config-pubkey-k)

To enter public-key key configuration mode from public-key chain configuration mode, use the **addressed-key** or **named-key** public key chain configuration commands puts you into public key configuration mode. In this mode you can specify RSA or DSS public keys. The following submode is accessible through public-key key configuration mode:

- Public-Key Hex Input Configuration Mode

For details, refer to the "Configuring Internet Key Exchange Security Protocol" chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

Public-Key Hex Input Configuration Mode

Prompt: (config-pubkey)

To enter public-key hex input configuration mode from public-key key configuration mode, use the **key-string** command. Use public-key hex input configuration mode to manually specify a remote peer's RSA public key for an encrypting peer router. The public key data is entered in hexadecimal form, and it will take more than one command line to enter. To continue entering the public key data on a new line, press Return. When the public key hex data is completely entered, press Return to get a new line, then type **quit** to return to public-key key configuration mode.

For details, refer to the "Configuring Internet Key Exchange Security Protocol" chapter in the "IP Security and Encryption" part of the Release 12.2 *Cisco IOS Security Configuration Guide*.

QoS Class-Map Configuration Mode

Prompt: (config-cmap)

To enter Quality of Service (QoS) class-map configuration mode from global configuration mode, enter the **class-map** command. Use class-map configuration mode to define a traffic class.

Also referred to as "QoS Class-map Configuration Mode," this mode was introduced in Cisco IOS Releases 12.0(5)XE and 12.1(5)T. The mode is related to the QoS Policy-Map Configuration Mode.

For details, refer to the "Configuring Multiprotocol Label Switching" chapter in the "Multiprotocol Label Switching" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide* and the "Configuring the Modular Quality of Service Command-Line Interface" chapter of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

QoS Policy-Map Configuration Mode

Prompt: (config-pmap)

To enter Quality of Service (QoS) policy map configuration mode from global configuration mode, enter the **policy-map** command. The **policy-map** command is used to define the characteristics of a service policy. The first step in creating a service policy is associating a traffic class with one or more Quality of Service (QoS) policies. The associated traffic class is defined by using the **class** command in policy map configuration mode.

For details, refer to the "Configuring Multiprotocol Label Switching" chapter in the "Multiprotocol Label Switching" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide* and the "Configuring Weighted Fair Queueing" chapter in the "Congestion Management" part of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

QoS Policy-Map Class Configuration Mode

Prompt ID: (config-pmap-c)

To enter Quality of Service (QoS) policy-map class configuration mode from policy-map configuration mode, enter the **class** command. After defining the associated traffic class, the router is automatically in policy-map class configuration mode. Use policy-map class configuration mode to define the Quality of Service (QoS) policies for a particular service policy.

For details, refer to the "Configuring Multiprotocol Label Switching" chapter in the "Multiprotocol Label Switching" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide* and the "Configuring Weighted Fair Queueing" chapter in the "Congestion Management" part of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

RADIUS Server Group Configuration Mode

See Server Group RADIUS Configuration Mode.

RED Group Configuration Mode

Prompt: (config-red-group)

To enter Random Early Detection (RED) configuration mode from global configuration mode, use the **random-detect-group** command. Use RED configuration mode to define the Weighted Random Early Detection (WRED) parameter group. (Note that the **service-policy output** and **random-detect-group** commands are mutually exclusive; before you can configure one command, you must disable the other if it is configured.)

For details, refer to the "Configuring IP to ATM Class of Service" chapter in the "Quality of Service Solutions" part of the Release 12.2 *Cisco IOS Quality of Service Solutions Configuration Guide*.

RLM Group Configuration Mode

Prompt: (config-rlm-group)

To enter Redundant Link Manager (RLM) group configuration mode from interface configuration mode, use the **rlm group** command. Use RLM group configuration mode to configure the RLM group (network access server).

The following configuration submode is accessible through RLM group configuration mode:

– RLM Device Configuration Mode

For details, refer to the "Configuring the Cisco SS7/C7 Dial Access Solution System" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

RLM Device Configuration Mode

Prompt: (config-rlm-group-sc)

To enter Redundant Link Manager (RLM) device configuration mode from RLM group configuration mode, use the **server** command. Use RLM device configuration mode to specify configuration options for the RLM network access server, such as link addresses and weighting preferences.

For details, refer to the "Configuring the Cisco SS7/C7 Dial Access Solution System" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

Resource Group Configuration Mode

See (Resource-Pool) Resource Group Configuration Mode.

(Resource-Pool) Call Discriminator Profile Configuration Mode

Prompt: (config-call-discriminator)

To enter resource-pool call discriminator profile configuration mode from global configuration mode, use the **resource-pool profile discriminator** command. Use call discriminator profile configuration mode to specify a list of calling party numbers to be rejected for inbound calls.

For details, refer to the "Configuring Resource Pool Management (RPM)" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

(Resource-Pool) Customer Profile Configuration Mode

Prompt: (config-customer-profile)

To enter resource-pool customer profile configuration mode from global configuration mode, use the **resource-pool profile customer** command. (To use resource-pool configuration modes, use should first enable resource pool management using the **resource-pool enable** global configuration command.) Use the customer profile configuration mode to include a group of DNIS numbers in a customer profile.

For details, refer to the "Configuring Resource Pool Management (RPM)" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

(Resource-Pool) Resource Group Configuration Mode

Prompt: (config-resource-group)

To enter resource-pool resource group configuration mode from global configuration mode, use the **resource-pool group resource** command. (To use resource-pool configuration modes, use should first enable resource pool management using the **resource-pool enable** global configuration command.) Use resource group configuration mode to associate a range of modems or other physical resources with a resource group for Resource Pool Management.

For details, refer to the "Configuring Resource Pool Management (RPM)" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

(Resource-Pool) Service Profile Configuration Mode

Prompt: (config-service-profile)

To enter resource-pool service profile configuration mode from global configuration mode, use the **resource-pool profile service** command. (To use resource pool configuration modes, use should first enable resource pool management using the **resource-pool enable** global configuration command.) Use service profile configuration mode to configure modem service parameters for devices used by the Resource Pool Manager (RPM).

For details, refer to the "Configuring Resource Pool Management (RPM)" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

(Resource-Pool) VPDN Profile Configuration Mode

Prompt: (config-vpdn-profile)

To enter resource-pool virtual private dialup network (VPDN) profile configuration mode from global configuration mode, use the **resource-pool profile vpdn** command. (To use resource-pool configuration modes, use should first enable resource pool management using the **resource-pool enable** global configuration command.) Use call VPDN profile configuration mode to configure a VPDN resource pool managment profile.

For details, refer to the "Configuring Resource Pool Management (RPM)" chapter in the "Dial Access Specialized Features" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

Route-Map Configuration Mode

Prompt: (config-route-map)

To enter route-map configuration mode from global configuration mode, use the **route-map** (IP) command. Use the route-map configuration mode to configure routing table source and destination information. For details, refer to the "Configuring IP Routing Protocol-Independent Features" chapter in the "IP Routing Protocols" part of the Release 12.2 *Cisco IOS IP Configuration Guide*.

Router Configuration Mode

Prompt: (config-router)

Router configuration commands configure an IP routing protocol and always follow a **router** command.

The following submodes are accessible from router configuration mode:

- Address Family Configuration Mode

For details, refer to the relevant protocol chapter in the "IP Routing Protocols" part of the Release 12.2 *Cisco IOS IP Configuration Guide*.

RTR Entry Configuration Mode

Prompt: (config-rtr)

To enter response time reporter (RTR) entry configuration mode from global configuration mode, use the **rtr** command. Use RTR configuration mode to configure Cisco Service Assurance Agent (SAA) operations for the measurement of response times and availability.

The following submode is accessible from RTR configuration mode:

- SAA HTTP Raw Request Configuration Mode

For details, refer to the "Network Monitoring Using Cisco Service Assurance Agent" chapter in this book.

SAA HTTP Raw Request Configuration Mode

Prompt: (config-rtr-http)
Aliases: RTR HTTP Raw Request Configuration Mode

To enter SAA HTTP raw configuration mode from RTR configuration mode or RTR Entry Configuration Mode, use the **http-raw-request** command. Use HTTP Raw Request Configuration Mode to explicitly specify the options for an SAA HTTP operation using HTTP 1.0 commands. The SAA HTTP operation determines the amount of time it takes for an HTTP request from your device to be serviced.

For details, see the "Network Monitoring Using Cisco Service Assurance Agent" chapter in this book.

Server Group RADIUS Configuration Mode

Prompt: (config-sg-radius)

To enter server group RADIUS configuration mode from global configuration mode, use the **aaa group server radius** command.

For details on the **aaa group server radius** command, refer to the "RADIUS Commands" chapter in the "Security Server Protocols" part of the Release 12.2 *Cisco IOS Security Command Reference*. For additional information, refer to the corresponding chapter in the Release 12.2 *Cisco IOS Security Configuration Guide*.

Server Group TACACS+ Configuration Mode

Prompt: (config-sg-tacac)

To enter server group TACACS+ configuration mode from global configuration mode, use the **aaa group server tacacs+** command.

For details on the **aaa group server tacacs+** command, refer to the "TACACS+ Commands" chapter in the "Security Server Protocols" part of the Release 12.2 *Cisco IOS Security Command Reference*. For additional information, refer to the corresponding chapter in the Release 12.2 *Cisco IOS Security Configuration Guide*.

Service Profile Configuration Mode

See (Resource-Pool) Service Profile Configuration Mode.

SLB DFP Configuration Mode

Prompt: (config-slb-dfp)

To enter server load balancing (SLB) dynamic feedback protocol (DFP) configuration mode from global configuration mode, use the **ip slb dfp** command. Use server load balancing DFP configuration mode to configure the Dynamic Feedback Protocol, which is a mechanism that allows host agents in load-balanced environments to dynamically report the change in status of the host systems providing a virtual service.

For details, refer to the "Configuring Server Load Balancing" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*.

SLB Real Server Configuration Mode

Prompt: (config-slb-real)

To enter server load balancing (SLB) real server configuration mode from server load balancing server-farm configuration mode, use the **real** command. Use real server configuration mode to identify a real server in your network. A *virtual* server can be defined that represents a group of *real* servers in a cluster of networks called a *server farm*. The real servers are the physical devices that provide the load-balanced services.

For details, refer to the "Configuring Server Load Balancing" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*..

SLB Server-Farm Configuration Mode

Prompt: (config-slb-sfarm)

To enter server load balancing (SLB) server-farm configuration mode from global configuration mode, use the **ip slb serverfarm** command. Use server farm configuration mode to group real servers into server farms. Using server farms enables Cisco IOS server load balancing to assign new connections to the real servers based on their weighted capacities, and on the load algorithms used.

For details, refer to the "Configuring Server Load Balancing" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*.

SLB Virtual Server Configuration Mode

Prompt ID: (config-slb-vserver)

To enter server load balancing (SLB) virtual server configuration mode from global configuration mode, use the **ip slb vserver** command. Use virtual server configuration mode to specify a virtual server that represents a group of real servers.

For details, refer to the "Configuring Server Load Balancing" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*.

SPE Configuration Mode

Prompt ID: (config-spe)

To enter Service Processing Element (SPE; also referred to as the Software Port Entity) configuration mode from global configuration mode, use the **spe** command. Use SPE configuration mode to copy firmware upgrades to a specified modem or modems. The modems are identified in the CLI using their SPE numbers.

For details, refer to the "Configuring and Managing Cisco Access Servers and Dial Shelves" chapter in the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide.*

Standard Named Access List (NACL) Configuration Mode

Prompt: (config-std-nacl)

All IP and IPX access lists can be identified by a number. Alternatively, some IP and IPX access lists can be identified by a name. Use access-list configuration mode when you are creating a named IP or IPX access list.

For information on creating a named IP access list, refer to the "Configuring IP Services" chapter in the Release 12.2 *Cisco IOS IP Configuration Guide*. For information on creating a named IPX access list, refer to the "Configuring Novell IPX" chapter in the Release 12.2 *Cisco IOS AppleTalk and Novell IPX Configuration Guide* .

Static Maps Class Configuration Mode

Prompt: (config-map-class)

To enter static maps class configuration mode from global configuration mode, use the **map-class** global configuration mode command. Use static maps class configuration mode to configure parameters for Frame Relay, ATM, or Dialer encapsulation protocols.

The **map-class dialer** command allows you to specify different characteristics for different types of calls on a per-call-destination basis. For example, you can specify higher priority and a lower wait-for-carrier time for an ISDN-calls map class than for a modem-calls map class. You can also specify a different speed for some ISDN calls than for other ISDN calls. For details, refer to the "Configuring PPP Callback" chapter in the Callback and Bandwidth Allocation Configuration part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

The **map-class frame-relay** command allows you to specify parameters that control the traffic that the source router will send over a switched virtual circuit (SVC). For details, refer to the "Configuring Frame Relay" chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide*.

Note that the **map-class atm** command is not supported in Cisco IOS Release 12.0 and later.

Use the **exit-class** command to exit from static maps class configuration mode.

Static Maps List Configuration Mode

Prompt: (config-map-list)

To enter static maps list configuration mode from global configuration mode, use the **map-list** command. Use static maps list configuration mode to define the protocol addresses and associate each protocol address with a specific map class. Static maps list configuration mode commands take the form *protocol* [*address*] **class** (for example, **aarp class**, **apollo 1.2 class**, **cdp class**, **ip 1.2.3.4 class**, and so on).

For details, refer to the **class (map-list)** command documentation in the "Frame Relay Commands" chapter of the Release 12.2 *Cisco IOS Wide-Area Networking Command Reference*.

Subinterface Configuration Mode

Prompt: (config-subif)

To enter subinterface configuration mode from interface configuration mode, use an **interface** command. Use subinterface configuration mode to configure multiple virtual interfaces (called subinterfaces) on a single physical interface.

Subinterfaces appear to be distinct physical interfaces to the various protocols. For example, Frame Relay networks provide multiple point-to-point links called permanent virtual circuits (PVCs). PVCs can be grouped under separate subinterfaces that in turn are configured on a single physical interface. From a bridging spanning-tree viewpoint, each subinterface is a separate bridge port, and a frame arriving on one subinterface can be sent out on a another subinterface.

For details on how to configure subinterfaces, refer to the appropriate documentation module for a specific protocol in the Cisco IOS software documentation.

System Controller Poll-Group Configuration Mode

Prompt: (config-poll-group)

To enter system controller poll-group configuration mode from global configuration mode, use the **syscon poll-group** command. Use system controller poll-group configuration mode to configure data collection for a specific poll group using a system controller. The poll-group configuration mode is required for Performance Data Collection, which allows a system controller to collect and store SNMP MIB data from its managed router and dial shelves.

For details, refer to the "Configuring and Managing Cisco Access Servers and Dial Shelves" chapter in the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide*.

Time Range Configuration Mode

Prompt: (config-time-range)

To enter time range configuration mode from global configuration mode, use the **time-range** command. Use time range configuration mode to define a time range consisting of specific times of the day and week. Apply the time range to a function that accepts time ranges to control when that function will occur. For example, the time range that you define can be referenced in IP extended access lists and IPX extended access lists.

For details, see the "Performing Basic System Management" chapter in this book.

TN3270 Server Configuration Mode

Prompt: (cfg-tn3270)

The TN3270 server provides a set of configuration modes and submodes for configuring the TN3270 Server feature on a CMCC adapter. For CIP adapters, the TN3270 server is configured on the virtual interface, which is always port 2. For CPA adapters, the TN3270 server feature is always configured on port 0.

To enter TN3270 server configuration mode from interface configuration mode, enter the **tn3270-server** command.

The following configuration submodes are accessible through TN3270 configuration mode:

- TN3270 DLUR Configuration Mode
  - TN3270 DLUR PU Configuration Mode
  - TN3270 DLUR Linked SAP Configuration Mode
- TN3270 Listen-Point Configuration Mode
  - TN3270 Listen-Point PU Configuration Mode
- TN3270 PU Configuration Mode
- TN3270 Response-Time Configuration Mode
- TN3270 Security Configuration Mode
  - TN3270 Security Profile Configuration Mode

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide* and the "TN3270 Server Commands" chapter of the Release 12.2 *Cisco IOS Bridging and IBM Networking Command Reference, Volume 2*.

TN3270 DLUR Configuration Mode

Prompt: (tn3270-dlur)

To enter dependent LU requester (DLUR) configuration mode from TN3270 server configuration mode, use the **dlur** command. Use DLUR configuration mode to enable the SNA session switch function on a CMCC adapter.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 DLUR PU Configuration Mode

Prompt: (tn3270-dlur-pu)

To enter dependent LU requester (DLUR) PU configuration mode from DLUR configuration mode, use the **pu (DLUR)** command. Use DLUR PU configuration mode to create a PU entity that has no direct link to a host.

Note DLUR PU configuration mode is a legacy configuration mode whose function to define DLUR PUs can be replaced by using theTN3760 listen-point configuration modes in Cisco IOS Release 12.0(5)T and later. When you define listen-point configurations, you can create DLUR PUs within listen-point PU configuration mode using the **pu dlur** command instead.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 DLUR Linked SAP Configuration Mode

Prompt: (tn3270-dlur-lsap)

To enter dependent LU requester (DLUR) linked service access point (SAP) configuration mode from DLUR configuration mode, use the **lsap** command. Use DLUR linked SAP configuration mode to create an SAP in the SNA session switch.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 Listen-Point Configuration Mode

Prompt: (tn3270-lpoint)

To enter listen-point configuration mode from TN3270 server configuration mode, use the **listen-point** command. Use listen-point configuration mode to specify the IP address and TCP port number to create a listen point.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 Listen-Point PU Configuration Mode

Prompt: (tn3270-lpoint-pu)

To enter listen-point PU configuration mode from listen-point configuration mode, use the **pu (listen-point)** command. Use listen-point PU configuration mode to create a PU entity that has a direct link to a host.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 PU Configuration Mode

Prompt: (tn3270-pu)

To enter PU configuration mode from TN3270 server configuration mode, use the **pu (TN3270)** command. Use PU configuration mode to create a PU entity that has its own direct link to a host.

Note PU configuration mode is a legacy configuration mode whose function to define direct PUs can be replaced by using the listen-point configuration modes in Cisco IOS Release 12.0(5)T and later. When you define listen-point configurations, you can create direct PUs within listen-point PU configuration mode using the **pu (listen-point)** command instead.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 Response-Time Configuration Mode

Prompt: (tn3270-resp-time)

To enter response-time configuration mode from TN3270 server configuration mode, use the **response-time group** command. Use response-time configuration mode to configure a client subnet group for response-time measurements.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 Security Configuration Mode

Prompt ID: (tn3270-security)

To enter TN3270 security configuration mode from TN3270 server configuration mode, use the **security** command. Use security configuration mode to configure security on the TN3270 server.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

TN3270 Security Profile Configuration Mode

Prompt ID: (tn3270-sec-profile)

To enter TN3270 security profile configuration mode from TN3270 security configuration mode, use the profile command. Use profile configuration mode to configure a security profile on the TN3270 server.

For details, refer to the "Configuring the TN3270 Server" chapter in the "IBM Networking" part of the Release 12.2 *Cisco IOS Bridging and IBM Networking Configuration Guide*.

Translation-Rule Configuration Mode

Prompt: (config-translate)

To enter translation-rule configuration mode from global configuration mode, use the **translation-rule** command. Use translation-rule configuration mode to define a translation-rule tag number.

For details, refer to the "Configuring Dial Plans, Dial Peers, and Digit Manipulation" chapter in the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Voice-Card Configuration Mode

Prompt: (config-voicecard)

To enter voice-card configuration mode from global configuration mode, use the **voice-card** command.Use voice-card configuration mode to specify the HCM codec complexity for a voice card.

For details, refer to the "Configuring Voice Ports" chapter in the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Voice Class Configuration Mode

Prompt: (config-class)

To enter voice class configuration mode from global configuration mode, use one of the forms of the **voice class** command. Use the **voice class busyout** command to use voice class configuration mode to define busyout conditions to be applied to a voice port. Use the **voice class permanent** command to use voice class configuration mode to create a voice class for Cisco trunk (private line) or FRF.11 trunk calls. You can assign the voice class to network dial peers and to voice ports. Use the **voice class dualtone** command to use voice class configuration mode to define a supervisory disconnect tone or tones to be detected. You can assign the voice class to an FXO voice port.

For details, refer to the "Configuring Voice over ATM" chapter in the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Voice-Port Configuration Mode

Prompt: (config-voiceport)

To enter voice port configuration mode from global configuration mode, use the **voice-port** command. Use voice port configuration mode to configure voice port settings for voice over ATM, voice over Frame Relay, and other related protocols.

For details, refer to the **voice-port** command description in the Release 12.2 *Cisco IOS Voice, Video, and Fax Command Reference*.

Voice Service Configuration Mode

Prompt: (conf-voi-serv)

To enter voice-service configuration mode from global configuration mode, use the **voice service {pots | voatm | vofr | voip}** command. Use voice-service configuration mode to specify POTS, voice over ATM (voatm), voice over Frame Relay (vofr), or Voice over IP (voip) options.

For details on specifying voice over ATM options, refer to the "Configuring Voice over ATM" chapter in the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

Voice Service Session Configuration Mode

Prompt: (conf-voi-serv-s)

To enter voice-service session configuration mode from voice-service configuration mode, use the **session protocol aal2** command. Use voice-service session configuration mode to configure call admission control (CAC) and subcell multiplexing.

For details, refer to the "Configuring Voice over ATM" chapter in the Release 12.2 *Cisco IOS Voice, Video, and Fax Configuration Guide*.

VoIP Dial Peer Configuration Mode

See Dial Peer Voice Configuration Mode.

VPDN Group Mode and Submodes

Prompt: (config-vpdn)

To enter virtual private dial-up network (VPDN) group configuration mode, first enable VPDN by using the **vpdn enable** global configuration mode command, and then use the **vpdn-group** *number* global configuration mode command. The VPDN group configuration mode is used to configure VPDN services on Cisco routers and access servers. In VPDN group configuration mode, you can configure generic information for the entire VPDN group. You can also enter the VPDN configuration submodes, and configure specific information for the VPDN services.

Refer to the "Configuring Virtual Private Networks" chapter in the "Virtual Templates, Profiles, and Networks" part of the Release 12.2 *Cisco IOS Dial Technologies Configuration Guide* for information on the following VPDN group configuration submodes:

- VPDN Accept-dialin group configuration mode (config-vpdn-acc-in)
- VPDN Accept-dialout group configuration mode (config-vpdn-acc-ou)
- VPDN Request-dialin group configuration mode (config-vpdn-req-in)
- VPDN Request-dialout group configuration mode (config-vpdn-req-ou)

VPDN Profile Configuration Mode

See (Resource-Pool) VPDN Profile Configuration Mode.

VPDN Template Configuration Mode

Prompt: (config-vpdn-templ)

To enter VPDN template configuration mode from global configuration mode, use the **vpdn-template** command. Use the VPDN template configuration mode to configure a VPDN group configuration template.

For details, refer to the 12.2(4)T "Default VPDN Group Template" feature module.

VRF Configuration Mode

Prompt: (config-vrf)

Aliases: IP VPN Routing/Forwarding instance Configuration Mode; IP VRF (ip-vrf) Configuration Mode

To enter VPN routing/forwarding (VRF) configuration mode from global configuration mode or router configuration mode, use the **ip vrf** command. Use VRF configuration mode to specify attributes for an MPLS VPN routing/forwarding instance (VRF).

For details, refer to the "Configuring Multiprotocol Label Switching" chapter in the "Multiprotocol Label Switching" part of the Release 12.2 *Cisco IOS Switching Services Configuration Guide*.

Note This mode appears as the **ip-vrf** option in the **show parser dump ?** command.

X.25 Profile Configuration Mode

Prompt: (config-x25)

To enter X.25 configuration mode from global configuration mode, use the **x25 profile** command. X.25 profiles streamline X.25 and LAPB configuration. X.25 profiles can contain existing X.25 and LAPB commands and, once created and named, can be simultaneously associated with more than one DLCI connection, using just the profile name. X.25 Layers 2 and 3 are transparently supported over Annex G. LAPB treats the Frame Relay network like an X.25 network link and passes all of the data and control messages over the Frame Relay network.

For details, refer to the **x25 profile** command documentation in the Release 12.2 *Cisco IOS Wide-Area Networking Configuration Guide* and the Release 12.2 *Cisco IOS Wide-Area Networking Command Reference* for more information.

Configuration Modes Summary Table

Table 26 lists the configuration modes available using the Cisco IOS CLI. The availability of any particular mode will depend on the features in your system software image and which platform you are using. For example, some configuration modes are specifically for configuring access servers, and will not be available on most routers.

Configuration modes are listed alphabetically by router prompt. All prompts listed are shown as they appear after the host-name prompt on the system (for example, if the host-name is "Router", the prompt for CA Identity configuration mode would be `Router(ca-identity)#`). The examples in the table assume the general default host-name of "Router."

Unless otherwise indicated, the **exit** command will bring you back to the mode you were in before you entered the current mode. For example, using the **exit** command in *subinterface configuration mode* will bring you back to *interface configuration mode*, using the **exit** command in *interface configuration mode* will bring you back to *global configuration mode*, and using the **exit** command in *global configuration mode* will bring you back to *privileged EXEC mode*.

At any time you can enter the **end** command to end your configuration session and return to privileged EXEC mode.

Table 26 Configuration Mode Summaries

Prompt	Configuration Mode Name	Access Method	Example
(ca-identity)	CA Identity Configuration Mode	From global configuration mode, use the **crypto ca identity** command.	Router(config)# **crypto ca identity** Router(ca-identity)#
(ca-root)#	CA Trusted-Root Configuration Mode	From global configuration mode, use the **crypto ca trusted-root** command.	Router(config)# **crypto ca trusted-root** Router(ca-root)#
(cfg-adap-*type n-m*)	IBM Channel Internal Adapter Configuration Mode	From IBM channel internal LAN configuration mode, enter the **adapter** command. In the router prompt syntax, *type* is the specified internal LAN type, *n* is the specified lan-id, and *m* is the adapter number.	Router(config)# **lan ethernet 10** Router(cfg-lan-Ether 10)# **adapter 1 4.5.6** Router(cfg-adap-Ether 10-1)#
(cfg-atm-range-p)#	ATM PVC-in-range Configuration Mode	From PVC range configuration mode, use the **pvc-in-range** command.	Router(config-if-atm-range)# **pvc-in-range** [*pvc-name*] [*vpi*] [/*vci*] Router(cfg-if-atm-range-pvc)#
(cfg-lan-*type n*)#	IBM Channel Internal LAN Interface Configuration Mode	From interface configuration mode, use the **lan** command. In the router prompt syntax, *type* is the specified internal LAN type and *n* is the specified LAN ID.	Router(config-if)# **lan ethernet 10** Router(cfg-lan-Ether 10)#
(cfg-tn3270)#	TN3270 Server Configuration Mode	From interface configuration mode, use the **tn3270-server** command.	Router(config)# **interface** *type slot*/*port* Router(config-if)# **tn3270-server** Router(cfg-tn3270)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-access-point)	Access-point Configuration Mode	From access-point list configuration mode, use the **access-point** command.	Router(config-ap-list)# **access-point** Router(config-access-point)#
(config-alps-ascu)	ALPS ASCU Configuration Mode	From interface configuration mode, use the **alps ascu** command.	Router(config)# **interface** *type slot/port* Router(config-if)# **alps ascu 4B** Router(config-alps-ascu)#
(config-alps-circuit)	ALPS Circuit Configuration Mode	From global configuration mode, use the **alps circuit** command.	Router(config)# **alps circuit CKT_NAME** Router(config-alps-circuit)#
(config-annexg)	Annex G Configuration Mode	From global configuration mode, use the **call-router h323-annexg** command.	Router(config)# **call-router h323-annexg be20** Router(config-annexg)# **advertise all**
(config-ap-list)	Access-point List Configuration Mode	From global configuration mode, use the **gprs access-point-list** command.	Router(config)# **gprs access-point-list** Router(config-ap-list)#
(config-atm-bundle) or (atm-bundle-config)	ATM VC Bundle Configuration Mode	From interface or subinterface configuration mode, use the **bundle** command.	Router(config-subif)# **bundle newyork** Router(config-atm-bundle)#
(config-call-discriminator)	(Resource-Pool) Call Discriminator Profile Configuration Mode	From global configuration mode, use the **resource-pool profile discriminator** command.	Router(config)# **resource-pool profile discriminator profile1** Router(config-call-discrimin)# **?** Call Discriminator Profile Commands: call-type Call-type to be rejected clid CLID entity to be rejected dnis DNIS entity to be rejected
(config-casa)#	CASA Configuration Mode	From global configuration mode, use the **ip casa** command.	Router(config)# **ip casa 10.10.4.1 224.0.1.2** Router(config-casa)#
(config-cert-chain)#	Certificate Chain Configuration Mode	From global configuration mode, use the **crypto ca certificate** chain command.	Router(config)# **crypto ca certificate** Router(config-cert-chain)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-ces)#	CES Configuration Mode	From global configuration mode, use the **ces** command.	Router(config)# **ces 1/0** Router(config-ces)#
(config-class)#	Voice Class Configuration Mode	From global configuration mode, use the **voice class** command.	Router(config)# **voice class busyout bsyout1** Router(config-class)# **?** voiceclass configuration commands: busyout Configure busyout trigger event & procedure
(config-cmap)#	QoS Class-Map Configuration Mode	From global configuration mode, use the **class-map** command.	Router(config)# **class-map** Router(config-cmap)#
(config-controller)#	Controller Configuration Mode	From global configuration mode, use the **controller** command.	Router(config)# **controller t1 0/0** Router(config-controll)#
(config-cor)#	Dial Peer COR List Configuration Mode	From global configuration mode, use the **dial-peer cor list** *list-name* command.	Router(config)# **dial-peer cor list corlist1** Router(config-cor)#
(config-crypto-map)#	Crypto Map Configuration Mode	From global configuration mode, use the **crypto map** command.	Router(config)# **crypto map Research 10** Router(config-crypto-map)#
(config-crypto-trans)#	Crypto Transform Configuration Mode	From global configuration mode, use the **crypto ipsec transform-set** command.	Router(config)#**crypto ipsec transform-set** Router(config-crypto-trans)#
(config-ctrl-cas)#	CAS Custom Configuration Mode	From controller configuration mode, use the **cas-custom** command.	Router(config-controller)# **cas-custom 1** Router(config-ctrl-cas)#
(config-customer-profile)#	(Resource-Pool) Customer Profile Configuration Mode	From global configuration mode, use the **resource-pool profile customer** command.	Router(config)# **resource-pool profile customer name1** Router(config-customer-profi)#? Customer Profile Configuration Commands: dnis Assign DNIS group with this profile limit Configure limits for the profile resource Assign resource and supported call-type source Assign Template with this profile vpdn Assign VPDN group/profile with this profile

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-dhcp)#	DHCP Pool Configuration Mode	From global configuration mode, use the **ip dhcp pool** command.	Router(config)# **ip dhcp pool pname1** Router(config-dhcp)#
(config-dialpeer)#	Dial Peer Voice Configuration Mode	From global configuration mode, use the **dial peer voice** command.	Router(config)# **dial peer voice 1 pots** Router(config-dialpeer)#
(config-dnis-group)#	Dialer DNIS Group Configuration Mode	From global configuration mode, use the **dialer dnis group** command.	Router(config)# **dialer dnis group dnis_isp_1** Router(config-dnis-group)# **?** Dialer DNIS Configuration Commands: call-type set call-type override number Enter number in DNIS group range Enter a range of numbers in DNIS group
(config-ext-nacl)#	Extended Named Access List (NACL) Configuration Mode	From global configuration mode, use the **ip access-list** or **ipx access-list** command.	Router(config)# **ip access-list extended flag** Router(config-ext-nacl)#
(config-fr-congest)#	Frame Relay Congestion Management Configuration Mode	From interface configuration mode, use the **frame-relay congestion-management** command.	Router(config-if)# **frame-relay congestion-management** Router(config-fr-congest)#
(config-fr-dlci)#	Frame Relay DLCI Configuration Mode	From interface configuration mode, use the **frame-relay interface-dlci [switched]** command.	Router(config)# **interface serial 1/1** Router(config-if)# **frame-relay interface-dlci 100** Router(config-fr-dlci)# **vofr** Router(config-fr-dlci)#
(config-frf5)# or (config-frf8)#	FRF.5 / FRF.8 Configuration Mode	From global configuration mode, use the **connect** command.	router(config)# **connect serial0 100 atm3/0 0/32 network-interworking** router(config-frf5)# **clp-bit 1** or router(config)# **connect serial0 100 atm1/0 0/32 service-interworking** router(config-frf8)# **efci-bit map-fecn**
(config-gateway)#	Gateway Configuration Mode	From global configuration mode, use the **gateway** command.	Router(config)# **gateway** Router(config-gateway)#
(config-gk)#	Gatekeeper Configuration Mode	From global configuration mode, use the **gatekeeper** command.	Router(config)# **gatekeeper** Router(config-gk)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-hub)#	Hub Configuration Mode	From global configuration mode, use **hub** command.	Router(config)#**hub ethernet 0 1 3** Router(config-hub)#
(config-if)#	Interface Configuration Mode	From global configuration mode, enter by specifying an interface with an **interface** command.	Router(config)# **interface serial 2** Router(config-if)#
(config-if-atm-member)#	ATM VC Bundle-Member Configuration Mode	From ATM bundle configuration mode, use the **pvc-bundle** command.	Router(config-if)# **bundle chicago** Router(config-if-atm-bundle)# **pvc-bundle chicago-control 207** Router(config-if-atm-member)# **class control-class** Router(config-if-atm-bundle)# **pvc-bundle chicago-premium 206**
(config-if-atm-range-pvc)#	ATM PVC Range Configuration Mode	From subinterface configuration mode, use the **range** [*name*] **pvc** command.	Router(config-subif)# **range** [*range-name*] **pvc** *start-vpi*/*start-vci end-vpi*/*end-vci* Router(config-if-atm-range-p)#
(config-if-atm-vc)#	ATM VC Configuration Mode	From interface configuration mode, use the **pvc** or **svc nsap** command.	Router(config-if)# **pvc 0/33** Router(config-if-atm-vc)# or Router(config-if)# **svc nsap AB.CDEF.01.234567.890A.BCDE.F012.3456.7890.1234.12** Router(config-if-atm-vc)#
(config-if-ces-vc)#	ATM VC CES Configuration Mode	From interface configuration mode, use the **pvc** or **svc** command with the **ces** keyword, or the **ces pvc** command.	Router(config-if)# **svc** [*name*] **ces** Router(config-if-ces-vc)#
(config-if-path)#	IP Host Backup Configuration Mode	From interface configuration mode, use the **path** command.	Router(config)# **interface channel 3/1** Router(config-if)# **ip address 198.92.5.1 255.255.255.128** Router(config-if)# **path c010 c110 c210** Router(config-if-path)# **claw 30 198.92.5.2 lpar1 cip1 tcpip tcpip** . . .

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-ipv6-acl)#	IPv6 Access List Configuration Mode	From global configuration mode, use the **ipv6 access-list** command.	Router(config)# **time-range lunchtime** Router(config)# **periodic weekdays 12:00 to 13:00** Router(config)# **ipv6 access-list OUTBOUND** Router(config-ipv6-acl)# **permit tcp any any eq www time-range lunchtime** Router(config-ipv6-acl)# **deny tcp any any eq www log-input** Router(config-ipv6-acl)# **permit tcp 2000:1::/64 any** Router(config-ipv6-acl)# **permit udp 2000:1::/64 any**
(config-ipx-router)#	IPX Router Configuration Mode	From global configuration mode, use the **ipx router** command. (IPX must first be enabled using the **ipx routing** command.)	Router(config)# **ipx routing** Router(config)# **ipx router rip** Router(config-ipx-router)#
(config-isakmp)#	ISAKMP Policy Configuration Mode	From global configuration mode, use the **crypto isakmp policy** command.	Router(config)# **crypto isakmp policy** Router(config-isakmp)#
(config-keychain)#	Key-Chain Configuration Mode	From global configuration mode, use the **keychain** command.	Router(config)# **keychain blue** Router(config-keychain)#
(config-keychain-key)#	Key-Chain Key Configuration Mode	From keychain configuration mode, use the **key** command.	Router(config-keychain)# **key 10** Router(config-keychain-key)#
(config-line)#	Line Configuration Mode	From global configuration mode, enter by specifying a line with a **line** {**aux** | **con** | **tty** | **vty**} *line-number* [*ending-line-number*] command.	Router(config)# **line vty 0 4** Router(config-line)#
(config-map-class)#	Static Maps Class Configuration Mode	From global configuration mode, use the **map-class** *encapsulation class-name* command.	Router(config)# **map-class frame-relay map1** Router(config-map-class)# **?** Static maps class configuration commands: frame-relay Configure Map parameters service-policy class-based service policy

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example

`(config-map-list)#`	Static Maps List Configuration Mode	From global configuration mode, use the **map-list** *name* command.	`Router(config)# map-list map2`
			`Router(config-map-list)# ?`
			`Static maps list configuration commands:`
			`A.B.C.D Protocol specific address`
			`aarp AppleTalk ARP`
			`apollo Apollo Domain`
			`appletalk AppleTalk`
			`. . .`

`(config-modem-pool)#`	Modem Pool Configuration Mode	From global configuration mode, use the **modem-pool** *name* command.	`Router(config)# modem-pool pool1`
			`Router(config-modem-pool)# ?`
			`Modem pool configuration commands:`
			`called-number Map a called number to modem pool`
			`pool-range Configure a group range for the modem pool`

`(config-mpoa-client)`
 	
`See (mpoa-client-config)#`
	See MPOA Client configuration mode (below)		

`(config-mpoa-server)`
 	
`See (mpoa-server-config)#`
	See MPOA Server configuration mode (below)		

`(config-mrm-manager)#`	MRM Manager Configuration Mode	From global configuration mode, use the **ip mrm manager** command.	`Router(config)# ip mrm manager test1` `Router(config-mrm-manager)#`
`(config-pmap)#`	QoS Policy-Map Configuration Mode	From global configuration mode, use the **policy-map** command.	`Router(config)# policy-map policyA` `Router(config-pmap)#`

`(config-pmap-c)#`	QoS Policy-Map Class Configuration Mode	From policy-map configuration mode, use the **class** command.	`Router(config)# policy-map policyA`
			`Router(config-pmap)# class first`
			`Router(config-pmap-c)#`

`(config-poll-group)#`	System Controller Poll-Group Configuration Mode	From global configuration mode, enter poll-group configuration mode with the **syscon poll-group** command.	`Router(config)# syscon poll-group cmlineinfo` `Router(config-poll-gr)#`
`(config-preauth)#`	AAA Preauthentication Configuration Mode	From global configuration mode, use the **aaa preauth** command.	`Router(config)# aaa preauth` `Router(config-preauth)#`

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-pubkey-chain)#	Public-Key Chain Configuration Mode	From global configuration mode, use the **crypto key pubkey-chain {dss | rsa}** command.	Router(config)# **crypto key pubkey-chain rsa** Router(config-pubkey-c)#
(config-pubkey-hex)#	Public-Key Hex Input Configuration Mode	From public-key key configuration mode, use the **key-string** command.	Router(config-pubkey-key)# **address 10.5.5.1** Router(config-pubkey-key)# **key-string 005C300D 06092A86** Router(config-pubkey-hex)# **4886F70D 01010105** . . .
(config-pubkey-key)#	Public-Key Key Configuration Mode	From public-key chain configuration mode, use the **addressed-key** command or **named-key** command.	Router(config-pubkey-c)# **named-key otherpeer.domain.com** Router(config-pubkey-k)#
(config-red-group)#	RED Group Configuration Mode	From global configuration mode, use the **random-detect-group** command.	Router(config)# **random-detect-group sanjose** Router(config-red-group)#
(config-resource-group)#	(Resource-Pool) Resource Group Configuration Mode	From global configuration mode, use the **resource-pool group resource** command.	Router(config)# **resource-pool group resource groupname1** Router(config-resource-group)# **range limit 48**
(config-rlm-group)#	RLM Group Configuration Mode	From interface configuration mode, use the **rlm group** command.	Router(config-if)# **rlm group 1** Router(config-rlm-group)#
(config-rlm-group-sc)#	RLM Device Configuration Mode	From RLM group configuration mode, use the **server** command.	Router(config-rlm-group)# **server r1-server** Router(config-rlm-group-sc)#
(config-route-map)#	Route-Map Configuration Mode	From global configuration mode, use the **route-map** command.	Router(config)# **route-map arizona** Router(config-route-map)# ? Route Map configuration commands: match Match values from routing table set Set values in destination routing protocol

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-router)#	Router Configuration Mode	From global configuration mode, enter by issuing the **router** *protocol* command (such as **router igrp)**.	Router(config)# **router rip** Router(config-router)#
(config-router-af)#	Address Family Configuration Mode	From router configuration mode, use the **address-family** command. To exit, use the **exit-address-family** command.	Router(config)# **router bgp 100** Router(config-router)# **address-family vpnv4** Router(config-router-af)#
(config-rtr)#	RTR Entry Configuration Mode	From global configuration mode, use the **rtr** command.	Router(config)# **rtr 1** Router(config-rtr)# **?** RTR Entry Commands: . . .
(config-rtr-http)#	SAA HTTP Raw Request Configuration Mode	From RTR configuration mode, use the **http-raw-request** command.	Router(config-rtr)# **type http operation raw url http://www.cisco.com** Router(config-rtr)# **http-raw-request** Router(config-rtr-http)# ? HTTP Raw Request Configuration: LINE http raw request; enter 'exit' to end the request Router(config-rtr-http)# **GET /index.html HTTP/1.0\r\n** Router(config-rtr-http)# **\r\n** Router(config-rtr-http)# **exit** Router(config-rtr)#
(config-service-profile)#	Service Profile Configuration Mode	From global configuration mode, use the **resource-pool profile service** command.	Router(config)# **resource-pool profile service user1** Router(config-service-profil)# **?** Service Profile Configuration Commands: modem Configure modem service parameters
(config-sg)# or (config-sg-radius)#	Server Group RADIUS Configuration Mode	From global configuration mode or interface configuration mode, use the **aaa group server radius** command.	Router(config-if)# **aaa group server radius sg1** Router(config-sg-radius)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-sg)# or (config-sg-tacacs)#	Server Group TACACS+ Configuration Mode	From global configuration mode or interface configuration mode, use the **aaa group server tacacs+** command.	Router(config-if)# **aaa group server tacacs+ sg1** Router(config-sg-tacacs)#
(config-slb-dfp)#	SLB DFP Configuration Mode	From global configuration mode, use the **ip slb dfp** command.	Router(config)# **ip slb dfp** Router(config-slb-dfp)#
(config-slb-real)#	SLB Real Server Configuration Mode	From server farm configuration mode, use the **real** command.	Router(config)# **ip slb serverfarm sfarm1** Router(config-slb-sfarm)# **real ip-address** Router(config-slb-real)#
(config-slb-sfarm)#	SLB Server-Farm Configuration Mode	From global configuration mode, use the **ip slb serverfarm** command.	Router(config)# **ip slb serverfarm sfarm1** Router(config-slb-sfarm)#
(config-slb-vserver)#	SLB Virtual Server Configuration Mode	From global configuration mode, use the **ip slb vserver** command.	Router(config)# **ip slb vserver vserver1** Router(config-slb-vserver)#
(config-spe)	SPE Configuration Mode	From global configuration mode, use the **spe** command.	Router(config)# **spe 1/0 1/23** Router(config-spe)# **firmware location flash:mcom-modem-code.5.2.30.bin** Router(config-spe)#
(config-std-nacl)#	Standard Named Access List (NACL) Configuration Mode	From global configuration mode, use the **ip access-list** or **ipx access-list** command.	Router(config)# **ip access-list standard Internetfilter** Router(config-std-nacl)# **permit 192.5.34.0 0.0.0.255** Router(config-std-nacl)# **deny 128.88.0.0 0.0.255.255** Router(config-std-nacl)# **exit** Router(config)#
(config-subif)#	Subinterface Configuration Mode	From interface configuration mode, specify a subinterface with an **interface** command.	Router(config-if)# **interface serial 2.1** Router(config-subif)#
(config-time-range)#	Time Range Configuration Mode	From global configuration mode, use the **time-range** *time-range-name* command.	Router(config)# **time-range no-http** Router(config-time-range)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-translate)#	Translation-Rule Configuration Mode	From global configuration mode, use the **translation-rule** command.	Router(config)# **translation-rule 10** Router(config-translate)#
(config-vc-class)#	ATM VC Class Configuration Mode	From interface configuration mode or subinterface configuration mode, use the **vc-class atm** command.	Router(config-if)# **vc-class atm pvc1** Router(config-vc-class)#
(config-vc-group)#	ATM-FR VC Group Configuration Mode	From global configuration mode, use the **vc-group** command.	router(config)# **vc-group friends** router(config-vc-group)# **serial0 16 16** router(config-vc-group)# **serial0 17 17**
(config-voiceport)#	Voice-Port Configuration Mode	From global configuration mode, use the **voice port** *slot/*[*sub-unit/*]*port* command.	Router(config)# **voice port 1/1/2** Router(config-voiceport)#
(config-vpdn)#	VPDN Group Configuration Mode	From global configuration mode, use the **vpdn-group** *number* command.	Router(config)# **vpdn-group 1** Router(config-vpdn)#
(config-vpdn-acc-in)#	VPDN Accept-dialin Configuration Mode	From VPDN group mode, use the **accept-dialin** command.	Router(config-vpdn)# **accept-dialin** Router(config-vpdn-acc-in)#
(config-vpdn-acc-out)#	VPDN Accept-dialout Configuration Mode	From VPDN group mode, use the **accept-dialout** command.	Router(config-vpdn)# **accept-dialout** Router(config-vpdn-acc-ou)#
(config-vpdn-profile)#	(Resource-Pool) VPDN Profile Configuration Mode	From global configuration mode, use the **resource-pool profile vpdn** command.	Router(config)# **resource-pool profile vpdn profile2** Router(config-vpdn-pro)#
(config-vpdn-req-in)#	VPDN Request-dialin Configuration Mode	From VPDN group mode, use the **request-dialin** command.	Router(config-vpdn)# **request-dialin** Router(config-vpdn-req-in)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(config-vpdn-req-ou)#	VPDN Request-dialout Configuration Mode	From VPDN group mode, use the **request-dialout** command.	Router(config-vpdn)# **request-dialout** Router(config-vpdn-req-ou)#
(config-vpdn-templ)	VPDN Template Configuration Modee	From global configuration mode, use the **vpdn-template** command.	R(config)# **vpdn-template** R(config-vpdn-templ)#?
(config-vrf)#	IP VPN Routing/Forwarding (VRF) Instance Configuration Mode (a.k.a. VRF Configuration Mode)	From global configuration mode or router configuration mode, use the **ip vrf** command.	Router(config)#**ip vrf name** Rotuer(config-vrf)#? IP VPN Routing/Forwarding instance configuration commands: bgp Commands pertaining to BGP . . . export VRF export import VRF import maximum Set a limit . . . rd Specify Route Distinguisher . . .
(config-x25)#	X.25 Profile Configuration Mode	From global configuration mode, use the **x25 profile** command.	Router(config)# **x25 profile NetworkNodeA dce** Router(config-x25)# **x25 htc 128**
(conf-voi-serv)#	Voice Service Configuration Mode	From global mode, use the **voice service** command.	Router(config)# **voice service voatm** Router(conf-voi-serv)# **?** voice service configuration commands: h323 Global H.323 commands modem Global modem commands session Voice session Protocol
(conf-voi-serv-s)#	Voice Service Session Configuration Mode	From voice service configuration mode, use the **session protocol aal2** command.	Router(config)# **voice service voatm** Router(conf-voi-serv)# **session protocol aal2** Router(conf-voi-serv-s)#
(lane-config-datab)#	LANE Database Configuration Mode	From global configuration mode, use the **lane database** command.	Router(config)# **lane database red** Router(lane-config-datab)#
(mpoa-client-config)#	MPOA Client (MPC) configuration mode	From global configuration mode, use the **mpoa client config name** command.	Router(config)# **mpoa client config name ip_mpc** Router(mpoa-client-config)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example
(mpoa-server-config)#	MPOA Server (MPS) configuration	From global configuration mode, use the **mpoa server config name** command.	Router(config)# **mpoa server config name ip_mps** Router(mpoa-server-config)#
(tn3270-dlur)#	TN3270 DLUR Configuration Mode	From TN3270 server configuration mode, use the **dlur** command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **dlur fq-cpname** *fq-dlusname* Router(tn3270-dlur)#
(tn3270-dlur-lsap)#	TN3270 DLUR Linked SAP Configuration Mode	From TN32370 DLUR configuration mode, use the **lsap** command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **dlur NETA.SHEK NETA.MVSD** Router(tn3270-dlur)# **lsap token-adapter 15 04** Router(tn3270-dlur-lsap)#
(tn3270-dlur-pu)#	TN3270 DLUR PU Configuration Mode	From DLUR configuration mode, use the **pu** (DLUR) command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **dlur NETA.SHEK NETA.MVSD** Router(tn3270-dlur)# **pu P0 05D99001 192.195.80.40** Router(tn3270-dlur-pu)#
(tn3270-lpoint)#	TN3270 Listen-Point Configuration Mode	From TN3270 server configuration mode, use the **listen-point** command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **listen-point 172.18.4.19 tcp-port 2023** Router(tn3270-lpoint)#
(tn3270-lpoint-pu)#	TN3270 Listen-Point PU Configuration Mode	From TN3270 listen-point configuration mode, use the **pu (listen-point)** command.	Router(tn3270-lpoint)# **pu PU1 94223456 tok 1 08** Router(tn3270-lpoint-pu)# or Router(tn3270-lpoint)# **pu P0 05D99001 dlur** Router(tn3270-lpoint-pu)#
(tn3270-pu)#	TN3270 PU Configuration Mode	From TN3270 server configuration mode, use the **pu (tn3270)** command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **pu PU1 05d00001 10.0.0.1 token-adapter 1 8 rmac 4000.0000.0001 rsap 4** Router(tn3270-pu)#
(tn3270-resp-time)#	TN3270 Response-Time Configuration Mode	From TN3270 server configuration mode, use the **response-time group** command.	Router(config)# **interface Channel3/2** Router(config-if)# **tn3270-server** Router(cfg-tn3270)# **response-time group MYSUBNET bucket boundaries 15 25 60 120 multiplier 35** Router(tn3270-resp-time)#

Table 26 Configuration Mode Summaries (continued)

Prompt	Configuration Mode Name	Access Method	Example

`(tn3270-sec-profile)#`	TN3270 Security Profile Configuration Mode	From TN3270 security configuration mode, use the **profile** command.	`Router(config)# interface Channel3/2`
			`Router(config-if)# tn3270-server`
			`Router(cfg-tn3270)# security`
			`Router(tn3270-security)# profile CERT40 SSL`
			`Router(tn3270-sec-profile)# servercert slot0:verisign187.pem`

`(tn3270-security)#`	TN3270 Security Configuration Mode	From TN3270 server configuration mode, use the **security** command.	`Router(config)# interface Channel3/2`
			`Router(config-if)# tn3270-server`
			`Router(cfg-tn3270)# security`