Basic Router Configuration

This module provides basic configuration procedures for the Cisco 800M Series ISR and contains the

following sections.

- **Configuring Global Parameters,**
- **Configuring Gigabit Ethernet WAN Interfaces,**
- **Configuring a Loopback Interface,**
- **Configuring Command-Line Access,**
- **Configuring Gigabit Ethernet LAN Interfaces,**
- **Configuring Static Routes,**
- **Configuring Dynamic Routes,**

Configuring Global Parameters

To configure the global parameters for your router, follow these steps.

SUMMARY STEPS

1. configure terminal
2. hostname name
3. enable secret password
4. no ip domain-lookup

DETAILED STEPS

	Command	Purpose

Step 1	**configure terminal**
	
	Example:
	`Router> enable`
	`Router# configure terminal`
		Enters global configuration mode, when using the console port.

Step 2	**hostname** *name* Example: `Router(config)# hostname Router`	Specifies the name for the router.
Step 3	**enable secret** *password* Example: `Router(config)# enable secret cr1ny5ho`	Specifies an encrypted password to prevent unauthorized access to the router.
Step 4	**no ip domain-lookup** Example: `Router(config)# no ip domain-lookup`	Disables the router from translating unfamiliar words (typos) into IP addresses.

Configuring Gigabit Ethernet WAN Interfaces

You can connect WAN interfaces either by using straight polarity connectors or reversed polarity

connectors.

• **Straight Polarity:** If Mag-jack RJ45 connector has a dot or digit marked on front housing, it can be

used with any type of cables.

• **Reversed Polarity:** If Mag-jack RJ45 connector has no dots or digit marked on front housing, it can

be used with coupler and short cable (Cat5E UTP cable) to connect other devices which doesn’t

support auto polarity correction.

To configure Gigabit Ethernet (GE) WAN interfaces, follow these steps, beginning in global

configuration mode.

SUMMARY STEPS

1. **configure terminal**
2. **interface gigabitethernet slot/port**
3. **ip address ip-address mask**
4. **no shutdown**
5. **exit**

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 2	**interface gigabitethernet** *slot/port* **Example:** `Router(config)# interface gigabitethernet 0/8`	Enters the configuration mode for a Gigabit Ethernet interface on the router. **Note** GigabitEthernet WAN Interfaces are 0/8 and 0/9 for Cisco C841M-8X ISR and 0/4 to 0/5 for Cisco C841M-4X
Step 3	**ip address** *ip-address mask* **Example:** `Router(config-if)# ip address 192.168.12.2 255.255.255.0`	Sets the IP address and subnet mask for the specified GE interface.
Step 4	**no shutdown** **Example:** `Router(config-if)# no shutdown`	Enables the GE interface, changing its state from administratively down to administratively up.
Step 5	**exit** **Example:** `Router(config-if)# exit`	Exits configuration mode for the GE interface and returns to global configuration mode.

Configuring a Loopback Interface

The loopback interface acts as a placeholder for the static IP address and provides default routing

information.

To configure a loopback interface, follow these steps, beginning in global configuration mode.

SUMMARY STEPS

1. ***configure terminal***
2. ***interface type number***
3. ***ip address ip-address mask***
4. ***exit***

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 2	**interface** *type number* **Example:** `Router(config)# interface Loopback 0`	Enters configuration mode for the loopback interface.
Step 3	**ip address** *ip-address mask* **Example:** `Router(config-if)# ip address 10.108.1.1 255.255.255.0`	Sets the IP address and subnet mask for the loopback interface.
Step 4	**exit** **Example:** `Router(config-if)# exit`	Exits configuration mode for the loopback interface and returns to global configuration mode.

Configuring Command-Line Access

To configure parameters to control access to the router, perform the following steps

SUMMARY STEPS

1. **configure terminal**
2. **line** [**aux** | **console** | **tty** | **vty**] *line-number*
3. **password** *password*
4. **login**
5. **exec-timeout** *minutes* [*seconds*]
6. **line** [**aux** | **console** | **tty** | **vty**] *line-number*
7. **password** *password*
8. **login**
9. **end**

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 2	**line** [**aux**	**console**	**tty**	**vty**] *line-number* Example: `Router(config)# line console 0`	Enters line configuration mode, and specifies the type of line.

	Command	Purpose
Step 3	**password** *password* **Example:** `Router(config)# password 5dr4Hepw3`	Specifies a unique password for the console terminal line.
Step 4	**login** **Example:** `Router(config-line)# login`	Enables password verification at the terminal login session.
Step 5	**exec-timeout** *minutes* [*seconds*] **Example:** `Router(config-line)# exec-timeout 5 30`	Sets the interval that the EXEC command interpreter waits until user input is detected. The default is 10 minutes. You can also optionally add seconds to the interval value.
Step 6	**line** [**aux** | **console** | **tty** | **vty**] *line-number* **Example:** `Router(config-line)# line vty 0 4`	Specifies a virtual terminal for remote console access.
Step 7	**password** *password* **Example:** `Router(config-line)# password aldf2ad1`	Specifies a unique password for the virtual terminal line.
Step 8	**login** **Example:** `Router(config-line)# login`	Enables password verifiation at the virtual terminal login session.
Step 9	**end** **Example:** `Router(config-line)# endRouter#`	Exits line configuration mode, and returns to privileged EXEC mode.

Configuring Gigabit Ethernet LAN Interfaces

To manually configure Gigabit Ethernet (GE) LAN interfaces, follow these steps, beginning in global configuration mode.

SUMMARY STEPS

1. **configure terminal**
2. **interface gigabitethernet** *slot/port*
3. **ip address** *ip-address mask*
4. **no shutdown**
5. **exit**

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 2	**interface gigabitethernet** *slot/port* **Example:** `Router(config)# interface gigabitethernet 0/1`	Enters the configuration mode for a Gigabit Ethernet interface on the router. **Note** GigabitEthernet LAN Interfaces are 0/0 to 0/7 for Cisco C841M-8X ISR and 0/0 to 0/3 for Cisco C841M-4X ISR.
Step 3	**ip address** *ip-address mask* **Example:** `Router(config-if)# ip address 192.168.12.2 255.255.255.0`	Sets the IP address and subnet mask for the specified GE interface.
Step 4	**no shutdown** **Example:** `Router(config-if)# no shutdown`	Enables the GE interface, changing its state from administratively down to administratively up.
Step 5	**exit** **Example:** `Router(config-if)# exit`	Exits configuration mode for the GE interface and returns to global configuration mode.