Product Overview

This chapter provides an overview of the features available for the Cisco 800M Series Integrated Services Router (ISR). Cisco 800M Series ISR Routers have the following two variants:

- Cisco C841M-4X/K9 ISR
- Cisco C841M-8X/K9 ISR

Cisco C841M-4X/K9 ISR has four GE LAN ports and Cisco C841M-8X/K9 ISR has eight GE LAN ports.

Note For compliance and safety information, see *Regulatory Compliance and Safety Information for Cisco 800 Series Routers*.

This chapter contains the following sections:

General Description

The Cisco 800M Series ISR is a modular router that provides 3G, Gigabit Ethernet, and Serial WAN connectivity options. The Cisco 800M Series ISR has four or eight Gigabit Ethernet LAN ports and two Gigabit Ethernet WAN ports.

The Cisco 800M Series ISR has two modular WAN slots for flexibility to connect branch to data center through field replaceable and non-hot-swappable WAN connectivity modules. The Cisco 800M Series ISR supports 3G GSM/CDMA WWAN module and serial WAN module.
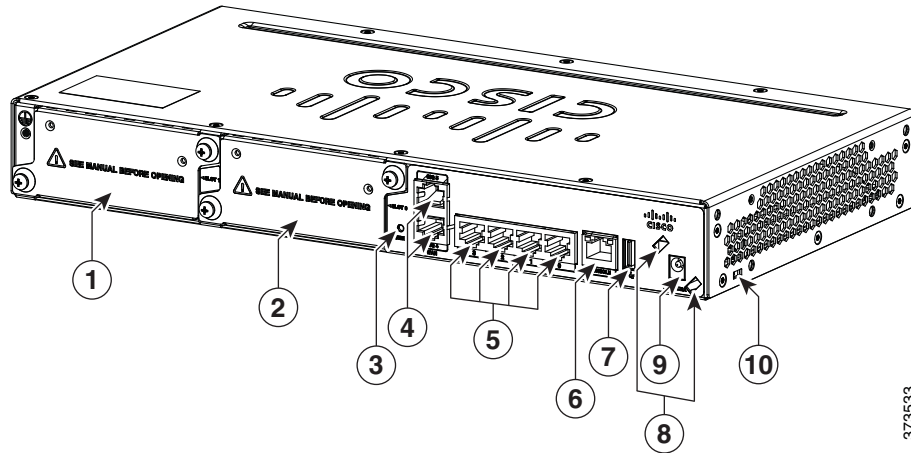
The Cisco 800M Series ISR can be powered by an (included) external AC adapter.

Figure 1-1   Cisco C841M-4X/K9 ISR Router Front View
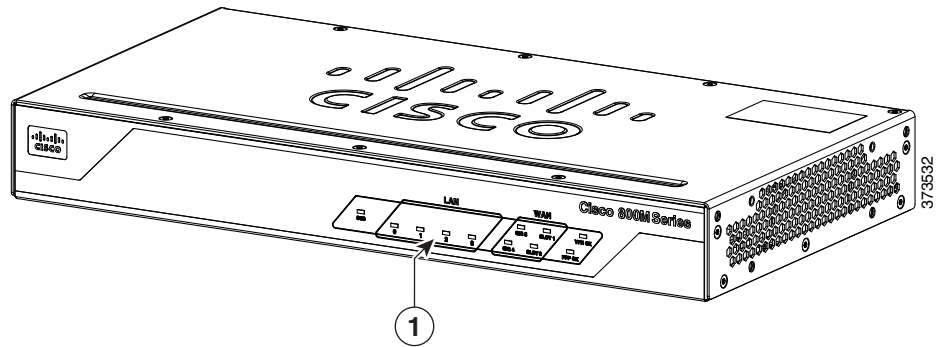
1	LEDs

Figure 1-2   Cisco C841M-4X/K9 ISR Rear View

1	Module Slot 1	6	Console
2	Module Slot 0	7	USB
3	Reset Button	8	Power Cord Lock
4	WAN Ports	9	Power Port
5	LAN Ports	10	Kensington security slot

Figure 1-3   Cisco C841M-8X/K9 ISR Front View
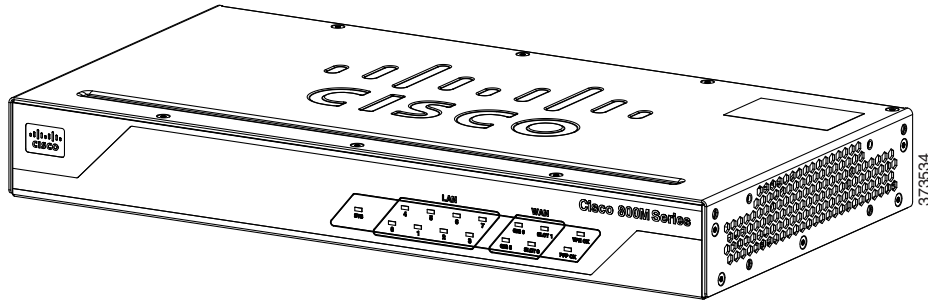
Figure 1-4   Cisco C841M-8X/K9 ISR Rear View
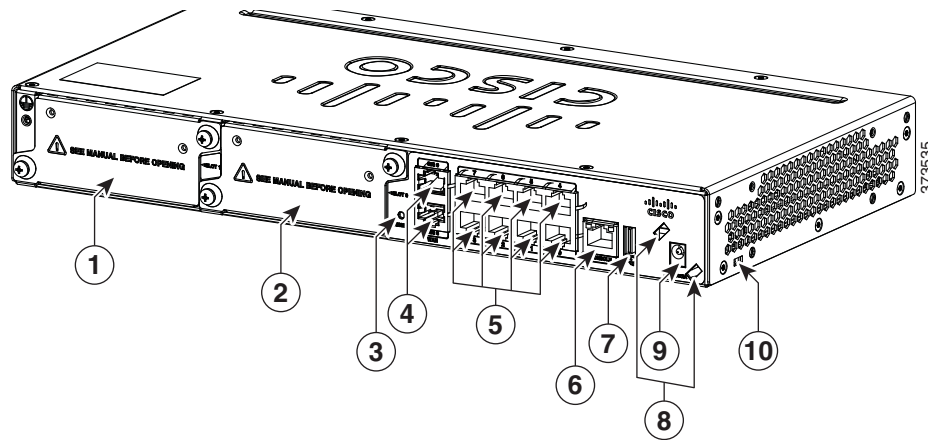
1	Module Slot 1	6	Console
2	Module Slot 0	7	USB
3	Reset Button	8	Power Cord Lock
4	WAN Ports	9	Power Port
5	LAN Ports	10	Kensington security slot

Hardware Features

The Cisco 800M Series ISR supports the following hardware features:

- Platform Features, page 1-4
- 3G Wireless WAN Module, page 1-4
- Serial WAN Module, page 1-5
- Memory, page 1-7
- Power Supply, page 1-7
- Reset Button, page 1-7

    • Kensington Lock, page 1-8

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Note   The WAAS Express feature is not supported. This feature will be supported for 3G and 4G interfaces with later IOS releases.

Platform Features

The Cisco 800M Series ISR have the following platform features:

- 2x GE Enabled WAN (1000/100/10 Base T)
- Cisco C841M-4X/K9 ISR has 512 MB DRAM
- Cisco C841M-8X/K9 ISR has 1 GB DRAM
- 8 MB of boot flash
- 2 GB NAND Flash
- AC Power Brick (Adapter (100 -240 AC and 12V 2.5 A DC)
- Built-in Grounding
- Rack Mount, Wall Mount, or Desktop Mount
- LED indicators for the platform
- Modular WAN slots for 3G and serial modules.

3G Wireless WAN Module

Cisco 800M Series ISRs support GSM and CDMA 3G Wireless WAN networks through the pluggable 3G Wireless WAN module. 3G WWAN module is based on Sierra Wireless 9090 modem and technology mode is auto selected based on the current active firmware.

The following table lists the GSM/CDMA modes and frequency bands supported by the 3G WWAN module.

Table 1-1   Supported Cellular Modes and Frequencies

Mode	Frequency
GPRS/EDGE	850/900/1800/1900 MHz
WCDMA	800/850/1900/2100 MHz
CDMA (1xRTT/EVDO Rev A)	800/1900 MHz

Some of the features supported by 3G WWAN module is given as follows:

- Dual SIM
- SIM lock and unlock capabilities
- Auto-switch failover between primary and backup link

Antenna

The Cisco 800M Series ISR supports 3G external antenna. The Cisco 800M Series ISR provides two standard panel-mount TNC connectors on the 3G WWAN module to support 3G. The main antenna is used as the primary 3G antenna. The second can be used as a diversity receive only 3G antenna. For information about the location of the antenna, see Figure 2-11.

Serial WAN Module

The Cisco 800M Series Integrated Services Router (ISR) provides serial WAN connectivity to remote

sites through the pluggable, serial WAN interface module.

The following are some of the features supported by Serial WAN module:

- Supports the following serial protocols:
  - EIA-232
  - EIA-449
  - EIA-530
  - EIA-530A
  - V.35
  - X.21
- Supports synchronous speed of up to 8 Mbps
- Supports asynchronous speed of up to 115.2 kbps
- Supports network clock synchronization

LEDs

The Cisco 800M Series ISR has LEDs located in the front of the router. The Cisco C841M-4X/K9 ISR has four LAN ports which has four LEDs (0-3) corresponding to each LAN port. The Cisco C841M-8X/K9 ISR has eight LAN ports which has eight LEDs (0-7) corresponding to eight LAN ports.

Both Cisco C841M-4X/K9 ISR ISR and Cisco C841M-8X/K9 ISR has two LEDs for modules (SLOT 0 and SLOT 1), and two WAN LEDs. There are two LEDs to represent PPP and VPN as well.

Table 1-2 describes the LEDs for the Cisco 800M series ISR.

Table 1-2   Cisco 800M Series ISR Router LED Descriptions

LED	LED Color or Status	Description
SYS	Flashing	System is running ROMMON mode or booting IOS.
	Solid Green	IOS is functioning normally.
	Off	System is powered off.

Table 1-2   ***Cisco 800M Series ISR Router LED Descriptions (continued)***

LED	LED Color or Status	Description
LAN	Solid Green	Network is linked on LAN port.
	Blinking Green	Network traffic is active on LAN port.
	Off	No network connectivity.
WAN	Solid Green	Network is linked to WAN port.
	Blinking Green	Network traffic is active on WAN port.
	Off	No network connectivity.
SLOT 0	Solid Green	Module is inserted and is active.
SLOT 1	Solid Green	Module is inserted and is active.
VPN OK	Green	A minimum of one VPN session is active.
	Off	VPN is off.
PPP OK	Green	A minimum of one PPP session is active.
	Off	PPP is off.

Table 1-3 describes the LEDs on the 3G WWAN module.

Table 1-3   ***3G Module LED Descriptions***

LED	LED Color or Status	Description
RSSI	Solid green	High RSSI (–60 dBm or higher)
	3 Blinks and long pause	Medium RSSI (–74 to –60 dBm)
	2 Blinks and long pause	-89 to -75 dBm
	1 Blink and long pause	-109 to -90dBm
	Off	Low RSSI (less than –100 dBm)
SIM 0	Solid Green	SIM 0 is active and connected to 3G (UMTS or CDMA 1xEVDO).
	Green (1 blink)	SIM 0 is active and connected to 2G (GSM or CDMA 1xRTT).
	Off	SIM is not present
SIM 1	Solid Green	SIM 1 is active and connected to 3G (UMTS or CDMA 1xEVDO).
	Green (1 blink)	SIM 1 is active and connected to 2G (GSM or CDMA 1xRTT).
	Off	SIM is not present.
WWAN	Green (fast blinking)	Traffic is flowing through the WAN link.
	Green (slow blinking)	Indicates that the cellular interface is up but there is no traffic.
	OFF	Cellular interface is down.

Table 1-4 describes the LEDs on the serial module.

Table 1-4   *LEDs on the Serial Module*

LED Name	Color/ Status	Description
CONN	Green	Indicates the interface status and shows that line protocol is up
	OFF	Shows that the line protocol is down.
LOOP BACK	Green	Indicates that loop back is configured on the serial interface.
	OFF	Indicates that loop back is not configured.

Memory

The Cisco 800M Series ISR support 8 MB of boot flash and 2 GB of NAND Flash. The Cisco C841M-4X/K9 ISR supports 512 MB of DRAM and Cisco C841M-8X/K9 ISR supports 1 GB of DRAM.

Power Supply

The power supply configuration is AC adapter that supports 100 -240 AC input and 12V 2.5 A DC output.

Note   The power-supply connector pin on the Cisco 800M series may have color variations, but it doesn't impact product performance or reliability.

Reset Button

The Reset button is used to restore the router to the factory default configuration or to load a custom configuration file. There are two different ways to do this:

• By pressing the Reset button within 5 seconds of powering up the router.

• By pressing the Reset button for 5 seconds while running IOS software.

Kensington Lock

A Kensington security slot is located on the router back panel. To secure the router to a desktop or other surface, use the Kensington lockdown equipment.

A Kensington lock feature is placed on the unit in a location acceptable to Cisco product marketing.

SKU Information

Table 1-5 lists the different SKUs for Cisco 800M Series ISR. 4 port SKU and 8 port SKU use the same PCB.

Table 1-5   ***Cisco 800M Series ISR SKUs***

SKU ID	Description
CISCOC841M-4X/K9R-K9	Cisco C841M-4X/K9 ISR with 4 port GE LAN and 2 port GE WAN, and 2 modular WAN slots.
CISCOC841M-4X/K9R-NPE-K9	Cisco C841M-4X/K9 ISR with 4 port GE LAN and 2 port GE WAN, 2 modular WAN slots, and No Payload Encryption (NPE) IOS image as default.
CISCOC841M-8X/K9R-K9	Cisco C841M-4X/K9 ISR with 8 port GE LAN and 2 port GE WAN, and 2 modular WAN slots.
CISCOC841M-8X/K9R-NPE-K9	Cisco C841M-4X/K9 ISR with 8 port GE LAN and 2 port GE WAN, 2 modular WAN slots, and NPE IOS image as default.

Table 1-6 lists the supported modules for Cisco 800M Series ISR.

Table 1-6   ***Modules Supported on Cisco 800M Series ISR***

Module	Description
WIM-1T	1 port serial WAN module for Cisco 800M series ISR.
WIM-3G	3G Wireless WAN module for Cisco 800M series ISR