

Initial Configuration

This chapter guides you through a basic router configuration, which is sufficient for you to access your network. Complex configuration procedures are beyond the scope of this publication and can be found in the modular configuration and modular command reference publications in the Cisco IOS software configuration documentation set that corresponds to the software release installed on your Cisco hardware.

To configure a Cisco ASR 920 Series Aggregation Services Router from a console, connect a terminal to the router console port.

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Checking Conditions Prior to System Startup

Ensure that the following conditions are addressed before starting up the router:

- The optional Gigabit Ethernet Management port cable is installed.
- The chassis is securely mounted and grounded.
- The power and interface cables are connected.
- Your PC with terminal emulation program (HyperTerminal or equivalent) is connected to the console port and powered up.
- Your PC terminal emulation program is configured for 9600 baud, 8 data bits, 1 stop-bit, no parity, and no flow control is set to none.
- You have selected passwords for access control.
- Captive installation screws are tight on all the removable components.
- The console terminal is turned on.
- You have determined the IP addresses for the Ethernet and serial interfaces.

Powering Up the Router

After installing your router and connecting cables, start the router and follow these steps:

Procedure

Step 1 Switch on the power supply.

Caution
Do not press any keys on the keyboard until the messages stop and the PWR LED is solid green. Any keys pressed during this time are interpreted as the first command typed when the messages stop, which might cause the router to power off and start over. It takes a few minutes for the messages to stop.

Step 2 Observe the initialization process. When the system boot is complete, the router begins to initialize.

During the boot process, observe the system LEDs. After the router has booted, the green STAT LED comes on and stays on.

Verifying the Front Panel LEDs

The front-panel indicator LEDs provide power, activity, and status information useful during bootup. For more detailed information about the LEDs, see the *LED Indicators* section.

Verifying the Hardware Configuration

To display and verify the hardware features, enter the following commands:

- **show version**—Displays the system hardware version, the installed software version, the names and sources of configuration files, the boot images, and the amount of installed DRAM, NVRAM, and flash memory.
- **show diag slot**—Displays the IDPROM information for the assemblies in the chassis.

Checking Hardware and Software Compatibility

To check the minimum software requirements of Cisco IOS-XE software with the hardware installed on your router, Cisco maintains the **Software Advisor** tool on Cisco.com. The tool provides the minimum Cisco IOS requirements for individual hardware modules and components.



Note To access this tool, you must have a Cisco.com login account.

To access the **Software Advisor** tool:

1. Click Login at Cisco.com. The login page with fields for User Name and Password is displayed.
2. Type your registered User Name and Password and click on the Log in button.
3. Type **Software Advisor** in the search box, and click on the magnifying lens icon next to the search box. .
4. From the displayed search result, click the link for the Software Advisor Tool.

5. Choose a product family or enter a specific product number to search for the minimum supported software needed for your hardware.

Configuring the Router at Startup

This section explains how to create a basic running configuration for your router.

Note You must acquire the correct network addresses from your system administrator or consult your network plan to determine the correct addresses before you can complete the router configuration.

Before continuing the configuration process, check the current state of the router by entering the **show version** command. This command displays the release of Cisco IOS software that is available on the router.

For information on modifying the configuration after you create it, see the Cisco IOS configuration and Cisco IOS Master Command List, All Releases guides.

To configure a Cisco ASR 920 Series Router from the console, you must connect a terminal or terminal server to the console port on the Cisco ASR 920 Series Router. To configure the router using the management Ethernet port, you must have the router's IP address.

Accessing the CLI Using the Console

To access the command line interface using the console, follow these steps:

Procedure

Step 1 When your system is booting, type No at the prompt.

Example:

```
--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: no
```

Step 2 Press Return to enter the user EXEC mode.

The following prompt is displayed:

Example:

```
Router>
```

Step 3 From the user EXEC mode, enter the enable command, as shown in the following example:

Example:

```
Router> enable
```

Step 4 At the password prompt, enter your system password, as shown in the following example. If an enable password has not been set on your system, you can skip this step.

Example:

```
Password: enablepass
```

When your password is accepted, the privileged EXEC mode prompt is displayed:

Example:

```
Router#
```

You now have access to the CLI in the privileged EXEC mode. You can enter the necessary commands to complete the required tasks.

Step 5 To exit the console session, enter the quit command, as shown in the following example:

Example:

```
Router# quit
```

Configuring Global Parameters

When you first start the setup program, configure the global parameters. These parameters are used for controlling system-wide settings. Perform the following steps to enter the global parameters:

Procedure

Step 1 Connect a console terminal to the console port, and then boot the router. For more information on connecting a console terminal, see *Connecting Console Cables* section.

Step 2 The first sections of the configuration script appear only at an initial system startup. On subsequent uses of the setup facility, the script begins with a System Configuration Dialog as shown below: When you are prompted about whether you want to enter the initial configuration dialog, enter yes.

Example:

```
Would you like to enter the initial configuration dialog? [yes/no] yes
At any point you may enter a question mark '?' for help.
Use ctrl-c to abort configuration dialog at any prompt.
Default settings are in square brackets '[]'.
Basic management setup configures only enough connectivity for management of the system,
extended setup will ask you to configure each interface on the system.
```

Basic management setup configures enough connectivity for managing the system; extended setup will ask you to configure each interface on the system.

Checking the Running Configuration Settings

To check the value of the settings you have entered, enter the show running-config command at the Router# prompt:

```
Router# show running-config
```

To review the changes you have made to the configuration use the **show startup-config** command in the user EXEC mode to see the changes and copy run-start stored in the NVRAM.

Saving the Running Configuration to NVRAM

To store the configuration or changes to your startup configuration in NVRAM, enter the copy running-config startup-config command at the prompt:

Router# copy running-config startup-config

Using this command saves the configuration settings that you created in the router using the configuration mode and the setup facility. If you fail to do this, your configuration will be lost, and will not be available when you reload the router next.

Safely Powering Off the Router

This section explains how to shut down the router. We recommend that before turning off all power to the chassis, you issue the **reload** command. This ensures that the operating system cleans up all the file systems. After the reload operation is complete, the router can be powered off safely.

To power off the router safely,:

Procedure

Step 1 Slip on the ESD-preventive wrist strap included in the accessory kit.

Step 2 Enter the **reload** command.

Step 3 Confirm the reload command.

Example:

```
Rmcp-6ru-1#reload
Proceed with reload? [confirm]
Aug 17 00:06:47.051 R0/0: %PMAN-5-EXITACTION: Process manager is exiting: prs exit with
reload chassis code
```

Step 4 After confirming the reload command, wait until the system bootstrap message is displayed before powering off the system:

Example:

```
System Bootstrap, Version 15.4(3)S1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2012 by cisco Systems, Inc.
Current image running: Boot ROM0
Last reset cause: RSP-Board
UEA platform with 2097152 Kbytes of main memory
```

Step 5 Remove power cables, if any, from the Cisco ASR 920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M Router:

- For power supplies with a circuit breaker switch, position the switch to the Off (O) position.
- For power supplies with a standby switch, place the standby switch in the Standby position.

Note
After powering off the router, wait for a minimum of 30 seconds before powering it on again.