CHAPTER 3

Managing Configuration Files in ROM Monitor

This chapter provides information about managing configuration files in the router.

This chapter contains the following sections:

Information about Configuration Files

Cisco IOS XR software creates two types of configuration files—the administration configuration file and the default secure domain router (SDR) configuration files. These configuration files are stored in the following locations:

- There is only one administration configuration file, which is stored on the RSP and contains system-wide configurations for items such as SDR name and node inventory.
- There is only one SDR configuration file in Cisco ASR 9000 Series Router, which is stored on the RSP to specify the parameters for routing, interfaces, SDR usernames, and other SDR-specific configurations.

The Cisco ASR 9000 Series Router contains only one SDR (the default SDR). In Cisco IOS-XR software, SDRs are a means of dividing a single physical system into multiple logically separated routers. Cisco ASR 9000 Series Aggregation Services Routers are single-shelf routers that support only one SDR per shelf.

For more information on SDRs and admin plane configuration, see the "*Configuring Secure Domain Routers on Cisco IOS XR* Software" module of *Cisco ASR 9000 Series Aggregation Services Router System Management Configuration Guide*.

The following sections describe ways to manage the use of configuration files from ROM Monitor:

Caution The default configuration should be sufficient for most situations. The options described in the following sections are for rare cases in which an alternative configuration is required. Use of these options can result in system errors or downtime. Consult Cisco technical support before using these options.

Specifying an Alternative Administration Configuration

The administration configuration stores system-wide configurations such as the SDR name and node inventory for the entire system. This is separate from the default-SDR configuration that stores routing and interface configurations.

To specify an alternative administration configuration file from ROM Monitor mode, use the methods described in the following sections:

- Specifying a Temporary Alternative Administrative Configuration with the -o Boot Option, page 3-36
- Specifying a Permanent Alternative Administrative Configuration File with the IOX_ADMIN_CONFIG_FILE= Variable, page 3-40

Caution The default committed administration configuration should be sufficient for most situations. The option described in this section is for rare cases when an alternative admin configuration is required. Use of this method can result in system errors or downtime.

Specifying a Temporary Alternative Administrative Configuration with the -o Boot Option

This mode of administrative configuration with the **-o boot** option is temporary in nature. After this boot option is set, this mode allows the router to boot from this alternative configuration, and the configuration specified in this configuration file becomes part of the running and persistent configuration.

Note When the router boots with the external configuration specified by the **-o** option, the system loses the default configuration. The default configuration is completely replaced with this alternative configuration.

To specify a temporary administration configuration file with the **-o boot** option, use the following procedure. With this method, the specified configuration file is used for a single router boot. If the RSP is reset again, the permanent configuration file is used.

SUMMARY STEPS

1. Place the RSP and the standby RSP in ROM Monitor mode.
2. **confreg**
3. Place the standby RSP to ROM Monitor mode by entering the boot type as 0.
4. **reset**
5. **confreg**
6. **set**
7. **boot**
8. Place the standby RSP to MBI validation mode or EXEC mode by entering the boot type as 2.
9. **reset**

DETAILED STEPS

	Command or Action	Purpose
Step 1	Place the RSP and the standby RSP in ROM Monitor mode.	For more information, see Entering ROM Monitor Mode, page 1-3.

Step 2	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]: y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the configuration register of the standby RSP to ROM Monitor mode so that the standby RSP does not take control. Enter the **confreg** command at the ROM Monitor mode prompt to set the configuration register to ROM Monitor mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.
		
		Note The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the **confreg** command. For more information about ROM Monitor mode commands and environmental variables, see Chapter 1, "ROM Monitor Overview and Basic Procedures".

Step 3	Enter boot type as 0.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the boot type as 0 to enable ROM Monitor mode during the next system boot.
		
		Note For more information on the configuration prompts that are displayed when you enter the **confreg** command, see the "Changing Configuration Register Settings" section on page 1-14.

Step 4	**reset** **Example:** `rommon B2> reset`	Makes the configuration register settings for the standby RSP card effective.

	Command or Action	Purpose
Step 5	**confreg** **Example:** rommon B1 > **confreg** Configuration Summary (Virtual Configuration Register: 0x1920) enabled are: console baud: 9600 boot: the ROM Monitor do you wish to change the configuration? y/n [n]: y enable "diagnostic mode"? y/n [n]: n change console baud rate? y/n [n]: n change the boot characteristics? y/n [n]: y enter boot type: 0 = ROM Monitor 2 = MBI Validation Boot Mode [0]: 2	Sets the active RSP configuration register to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.
Step 6	Enter boot type as 2. **Example:** enter boot type: 0 = ROM Monitor 2 = MBI Validation Boot Mode [0]: 2	Sets the boot type as 2 to enable MBI validation mode or the EXEC mode during the next system boot.
Step 7	**set** **Example:** rommon B2> set	Displays the current environment variable settings. **Note** The filename is set in the BOOT variable.
Step 8	**boot** *image* **-o** *config-file-path* **Example:** rommon B3> boot tftp://223.255.254.254/images/comp-asr9k-mini.vm -o /disk1:/cfgarchives/admingold.conf	Boots the router. Replace *image* with the filename listed in the boot variable, and replace *config-file-path* with the path and filename for the configuration file. **Note** The pathname should be a valid UNIX pathname (a slash [/] must be included after the device: “disk1:/”).

	Command or Action	Purpose

Step 9	**confreg**
	
	Example:
	`rommon B3> confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]: y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the configuration register of the standby RSP to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.

Step 10	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Set the boot type as 2 for standby RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 11	**reset** **Example:** `rommon B5 > reset`	Resets the standby RSP so that the new setting can take effect and the standby RSP card becomes operational.

Specifying a Permanent Alternative Administrative Configuration File with the IOX_ADMIN_CONFIG_FILE= Variable

This mode of alternative administrative configuration with the IOX_ADMIN_CONFIG_FILE= variable is permanent in nature. After this variable is set, this mode allows the router to always boot from this alternative configuration, and the system does not revert to the default commited configuration on the next system reload.

Note When the router boots with the external configuration specified by the IOX_ADMIN_CONFIG_FILE= variable, the system loses the default configuration. The default configuration is completely replaced with this alternative configuration.

To permanently change the location of the default administration configuration file, specify the filename and directory path in the IOX_ADMIN_CONFIG_FILE= environment variable while in ROM Monitor mode. Specifying the environment variable forces the use of the specified file for all boots while this variable is set.

SUMMARY STEPS

1. Place the RSP and the standby RSP in ROM Monitor mode.
2. **confreg**
3. Place the standby RSP to ROM Monitor mode by entering the boot type as 0
4. **reset**
5. **confreg**
6. Place the active RSP to MBI validation mode or EXEC mode by entering the boot type as 2
7. **set**
8. **IOX_ADMIN_CONFIG_FILE**=*drive:path/file*
9. **sync**
10. **boot**
11. **confreg**
12. Place the standby RSP to MBI validation mode or EXEC mode by entering the boot type as 2
13. **reset**

DETAILED STEPS

	Command or Action	Purpose
Step 1	Place the RSP and the standby RSP in ROM Monitor mode.	For more information, see Entering ROM Monitor Mode, page 1-3.

Step 2	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]: y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the configuration register of the standby RSP to ROM Monitor mode so that the standby RSP does not take control. Enter the **confreg** command at the ROM Monitor mode prompt to set the configuration register to ROM Monitor mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.
		
		Note The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the **confreg** command.

Step 3	Enter the boot type as **0**.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the boot type as 0 to enable ROM Monitor mode during the next system boot.
		
		Note For more information about configuration prompts that are displayed when you enter the **confreg** command, see the "Changing Configuration Register Settings" section on page 1-14.

Step 4	**reset** **Example:** `rommon B3> reset`	Makes the configuration register settings for the standby RSP card effective.

	Command or Action	Purpose

Step 5	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the active RSP configuration register to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.

Step 6	Enter the boot type as 2.
	
	Example:
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for the active RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 7	**set** **Example:** `rommon B2> set`	Displays the current environment variable settings. **Note** The filename is set in the IOX_ADMIN_CONFIG_FILE variable.

Step 8	**IOX_ADMIN_CONFIG_FILE=***drive:path/file*
	
	Example:
	`rommon B3>`
	`IOX_ADMIN_CONFIG_FILE=/disk2:/cfgarchives/`
	`admingold.conf`
		Sets the IOX_ADMIN_CONFIG_FILE variable to specify the absolute path of a different admin configuration file.
		
		Note The IOX_ADMIN_CONFIG_FILE variable is overridden by the **boot** command when it is entered with the **-o** option.

Step 9	**sync** **Example:** `rommon B4> sync`	Saves the changes.
Step 10	**boot** **Example:** `rommon B5> boot`	Boots the router.

	Command or Action	Purpose

Step 11	**confreg**
	
	Example:
	`rommon B2 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]: y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the configuration register of the standby RSP to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.

Step 12	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for the standby RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 13	**reset** **Example:** `rommon B2 > reset`	Resets the standby RSP so that the new setting takes effect and the standby RSP becomes operational.

Specifying an Alternative SDR Configuration

You can specify an alternative configuration for the default-SDR from ROM Monitor mode, using the methods described in the following sections. These procedures are run from the RSP card for the default-SDR.

Note For more information on SDR, see the "Configuring Secure Domain Routers on Cisco IOS XR Software" module of *Cisco ASR 9000 Series Aggregation Services Router System Management Configuration Guide*.

This section includes the following procedures:

- Specifying a Temporary SDR Configuration File with the -a Boot Option, page 3-44
- Specifying a Permanent SDR Configuration File with the IOX_CONFIG_FILE= Variable, page 3-47

Caution The default committed SDR configuration should be sufficient for most situations. The option described in this section is for rare cases when an alternative SDR configuration is required. Use of this method can result in system errors or downtime.

Specifying a Temporary SDR Configuration File with the -a Boot Option

This mode of SDR configuration with the **-a** boot option is temporary in nature. Once this boot option is set, this mode allows the router to boot from this alternative configuration and the configuration specified in this configuration file becomes part of the running and persistent configuration.

Note When the router boots with the external configuration specified by the **-a** option, the system loses the default configuration. The default configuration is completely replaced with this alternative configuration.

To specify a temporary SDR configuration file with the **-a** boot option, use the following procedure. With this method, the specified configuration file is used for a single router boot. If the DSC is reset again, the permanent configuration file is used.

SUMMARY STEPS

1. Place the RSP and the standby RSP in ROM Monitor mode.
2. **confreg**
3. Place the standby RSP to ROM Monitor mode by entering the boot type as 0.
4. **reset**
5. **confreg**
6. **set**
7. **boot**
8. Place the standby RSP to MBI validation mode or EXEC mode by entering the boot type as 2.
9. **reset**

DETAILED STEPS

	Command or Action	Purpose
Step 1	Place the RSP and the standby RSP in ROM Monitor mode.	For more information, see Entering ROM Monitor Mode, page 1-3.

Step 2	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`   (Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n  [n]:`
	`y`
	`enable  "diagnostic mode"? y/n  [n]:  n`
	`change console baud rate? y/n  [n]:  n`
	`change the boot characteristics? y/n  [n]:  y`
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`    [0]:  0`
		Sets the configuration register of the standby RSP to ROM Monitor mode so that the standby RSP does not take control. Enter the **confreg** command at the ROM Monitor mode prompt to set the configuration register to ROM Monitor mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.
		
		Note The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the **confreg** command.

Step 3	Enter boot type as 0.
	
	Example:
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`    [0]:  0`
		Sets the boot type as 0 to enable ROM Monitor mode during the next system boot.
		
		Note For more information about configuration prompts that are displayed when you enter the **confreg** command, see the "Changing Configuration Register Settings" section on page 1-14.

Step 4	**reset** **Example:** `rommon B2> reset`	Makes the configuration register settings for the standby RSP card effective.

	Command or Action	Purpose

Step 5	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the active RSP configuration register to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.

Step 6	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 to enable MBI validation mode or the EXEC mode during the next system boot.

Step 7	**set** **Example:** `rommon B2> set`	Displays the current environment variable settings. **Note** The filename is set in the BOOT variable.
Step 8	**boot** *image* **-a** *config-file-path* **Example:** `rommon B3> boot tftp://223.255.254.254/images/comp-asr9k-mini.vm -a /disk1:/cfgarchives/SDRgold.conf`	Boots the router. Replace *image* with the filename listed in the boot variable, and replace *config-file-path* with the path and filename for the configuration file. **Note** The pathname should be a valid UNIX pathname (a slash [/] must be included after the device: “disk1:/”).

	Command or Action	Purpose

Step 9	**confreg**
	
	Example:
	`rommon B3> confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the configuration register of the standby RSP to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.

Step 10	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for standby RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 11	**reset** **Example:** `rommon B5 > reset`	Resets the standby RSP card so that the new setting can take effect and the standby RSP card becomes operational.

Specifying a Permanent SDR Configuration File with the IOX_CONFIG_FILE= Variable

This mode of alternative SDR configuration with the IOX_CONFIG_FILE= variable is permanent in nature. Once this variable is set, this mode allows the router to always boot from this alternative configuration. The system does not revert to the default commited configuration on the next system reload.

Note When the router boots with the external configuration specified by the IOX_CONFIG_FILE= variable, the system loses the default configuration. The default configuration is completely replaced with this alternative configuration.

To permanently change the location of the default configuration file for an SDR, specify the filename and directory path in the IOX_CONFIG_FILE= environment variable while in ROM Monitor mode. Specifying the environment variable forces the use of the specified file for all boots while this variable is set.

SUMMARY STEPS

1. Place the RSP and the standby RSP in ROM Monitor mode.
2. **confreg**
3. Place the standby RSP to ROM Monitor mode by entering the boot type as 0
4. **reset**
5. **confreg**
6. Place the active RSP to MBI validation mode or EXEC mode by entering the boot type as 2
7. **set**
8. **IOX_CONFIG_FILE**=*drive:path/file*
9. **sync**
10. **boot**
11. **confreg**
12. Place the standby RSP to MBI validation mode or EXEC mode by entering the boot type as 2
13. **reset**

DETAILED STEPS

	Command or Action	Purpose
Step 1	Place the RSP and the standby RSP in ROM Monitor mode.	For more information, see the Entering ROM Monitor Mode, page 1-3.

Step 2	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the configuration register of the standby RSP to ROM Monitor mode so that the standby RSP does not take control. Enter the **confreg** command at the ROM Monitor mode prompt to set the configuration register to ROM Monitor mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.
		
		Note The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the **confreg** command.

	Command or Action	Purpose

Step 3	Enter the boot type as **0**.
	
	Example:
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`    [0]:  0`
		Sets the boot type as 0 to enable ROM Monitor mode during the next system boot.
		
		Note For more information about configuration prompts that are displayed when you enter the **confreg** command, see the "Changing Configuration Register Settings" section on page 1-14.

Step 4	**reset** **Example:** `rommon B3> reset`	Makes the configuration register settings for the standby RSP card effective.

Step 5	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n  [n]:`
	`y`
	`enable  "diagnostic mode"? y/n  [n]:  n`
	`change console baud rate? y/n  [n]:  n`
	`change the boot characteristics? y/n  [n]:  y`
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`    [0]:  2`
		Sets the active RSP configuration register to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.

Step 6	Enter the boot type as 2.
	
	Example:
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`    [0]:  2`
		Sets the boot type as 2 for the active RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 7	**set** **Example:** `rommon B3> set`	Displays the current environment variable settings. **Note** The filename is set in the IOX_CONFIG_FILE variable.

Step 8	**IOX_CONFIG_FILE=***drive:path/file*
	
	Example:
	`rommon B1> IOX_CONFIG_FILE=/disk2:/cfgarchives/`
	`admingold.conf`
		Sets the IOX_CONFIG_FILE variable to specify the absolute path of a different SDR configuration file.
		
		Note The IOX_CONFIG_FILE variable is overridden by the **boot** command when it is entered with the **-a** option

	Command or Action	Purpose
Step 9	**sync** **Example:** `rommon B1> sync`	Saves the changes.
Step 10	**boot** **Example:** `rommon B1> boot`	Boots the router.

Step 11	**confreg**
	
	Example:
	`rommon B2 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the configuration register of the standby RSP to exec mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.

Step 12	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for the standby RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 13	**reset** **Example:** `rommon B2 > reset`	Resets the standby RSP so that the new setting takes effect and the standby RSP becomes operational.

Specifying an Alternate Storage Location for Configuration Files

To change the default location where the configuration files for an SDR are saved (committed), specify the location and directory path in the IOX_CONFIG_MEDIUM= environment variable while in ROM Monitor mode. Specifying the environment variable forces the use of the specified location while this variable is set.

SUMMARY STEPS

1. Place the RSP and the standby RSP in ROM Monitor mode.
2. **confreg**
3. Place the standby RSP to ROM Monitor mode by entering the boot type as 0
4. **reset**
5. **confreg**
6. Place the active RSP to MBI validation mode or EXEC mode by entering the boot type as 2
7. **set**
8. **IOX_CONFIG_MEDIUM**=*location:/path*
9. **sync**
10. **boot**
11. **confreg**
12. Place the standby RSP to MBI validation mode or EXEC mode by entering the boot type as 2
13. **reset**

DETAILED STEPS

	Command or Action	Purpose
Step 1	Place the RSP and the standby RSP in ROM Monitor mode.	For more information, see Entering ROM Monitor Mode, page 1-3.

Step 2	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the configuration register of the standby RSP to ROM Monitor mode so that the standby RSP does not take control. Enter the **confreg** command at the ROM Monitor mode prompt to set the configuration register to ROM Monitor mode. You can also change the console baud rate, boot characteristics, boot type configuration settings and enable diagnostic mode at the ROM Monitor mode.
		
		Note The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the **confreg** command.

Step 3	Enter the boot type as **0**.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 0`
		Sets the boot type as 0 to enable ROM Monitor mode during the next system boot.
		
		Note For more information about configuration prompts that are displayed when you enter the **confreg** command, see the "Changing Configuration Register Settings" section on page 1-14.

Step 4	**reset** **Example:** `rommon B3> reset`	Makes the configuration register settings for the standby RSP card effective.

	Command or Action	Purpose

Step 5	**confreg**
	
	Example:
	`rommon B1 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the active RSP configuration register to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.

Step 6	Enter the boot type as 2.
	
	Example:
	`enter boot type:`
	`0 = ROM Monitor`
	`2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for the active RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 7	**set** **Example:** `rommon B3> set`	Displays the current environment variable settings. **Note** The filename is set in the IOX_CONFIG_MEDIUM variable.

Step 8	**IOX_CONFIG_MEDIUM=***location:/path*
	
	Example:
	`rommon B1> IOX_CONFIG_FILE=/disk2:/cfgarchives/`
	`admingold.conf`
		Sets the IOX_CONFIG_MEDIUM variable to specify a different location.
		
		For the Cisco ASR 9000 Series Router, replace *location* with disk0 or disk1. Replace *path* with the path to the directory in which you want to store the configuration files.
		
		Note By default, the directory */disk0:/usr* is available for storing alternative configurations and other user files. We recommend that you do not use a directory path starting with */disk0:/config* because that path is used to store system files.

Step 9	**sync** **Example:** `rommon B1> sync`	Saves the changes.
Step 10	**boot** **Example:** `rommon B1> boot`	Boots the router.

	Command or Action	Purpose

Step 11	**confreg**
	
	Example:
	`rommon B2 > confreg`
	
	`Configuration Summary`
	`(Virtual Configuration Register: 0x1920)`
	`enabled are:`
	`console baud: 9600`
	`boot: the ROM Monitor`
	
	`do you wish to change the configuration? y/n [n]:`
	`y`
	`enable "diagnostic mode"? y/n [n]: n`
	`change console baud rate? y/n [n]: n`
	`change the boot characteristics? y/n [n]: y`
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the configuration register of the standby RSP to EXEC mode. You can also change the console baud rate, boot characteristics, boot type configuration settings, and enable diagnostic mode at the ROM Monitor mode.

Step 12	Enter boot type as 2.
	
	Example:
	`enter boot type:`
	` 0 = ROM Monitor`
	` 2 = MBI Validation Boot Mode`
	`[0]: 2`
		Sets the boot type as 2 for the standby RSP to enable MBI validation mode or the EXEC mode during the next system boot.

Step 13	**reset** **Example:** `rommon B2 > reset`	Resets the standby RSP so that the new setting takes effect and the standby RSP becomes operational.

Additional References

The following sections provide references related to the ROM Monitor.

Related Documents

Related Topic	Document Title
SDRs and admin plane configuration	*Configuring Secure Domain Routers on Cisco IOS XR Software* module of *Cisco ASR 9000 Series Aggregation Services Router System Management Configuration Guide*

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/support