



# Password Recovery in ROM Monitor Mode

This chapter describes how to recover a password on the router. It also includes instructions to bypass ksh authentication on a node.

- [Information About Password Recovery, on page 1](#)
- [Recovering the Root Password on Single-RP Routers, on page 1](#)
- [Recovering the Root Password on Redundant-RP Routers, on page 2](#)
- [Bypassing ksh Authentication, on page 4](#)
- [Additional References, on page 4](#)

## Information About Password Recovery

If the root password is forgotten, it can be recovered only at the RP card. To recover the password at the Designated Shelf Controller (DSC), set the configuration register to 0x142 on the active RP and reboot the router. When the router boots, a password recovery dialog appears. This dialog prompts you to reset the root-system username and password. After you save the new password, the configuration register automatically resets to the prior value (such as 0x102).



**Note** The AAA authentication configuration can still prevent access, even after the root password is recovered. In this case, you must bypass the ksh authentication via the auxiliary port.

## Recovering the Root Password on Single-RP Routers

Use the following procedure to recover the router password from a router with a single RP:

### SUMMARY STEPS

1. Place the router in ROM Monitor (ROMMON) mode.
2. Set the RP configuration register to 0x42 at the ROM Monitor prompt:
3. Reset or power cycle the router so that the new setting takes effect:
4. Press **Return** at the prompt to enter the password recovery dialog, and then enter the new root-system username and password, and save the configuration.

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	Place the router in ROM Monitor (ROMMON) mode.	
<b>Step 2</b>	Set the RP configuration register to 0x42 at the ROM Monitor prompt:  <b>Example:</b>  rommon B1> <b>confreg 0x42</b>	<b>Note</b> The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign when entering the <b>confreg</b> command.
<b>Step 3</b>	Reset or power cycle the router so that the new setting takes effect:	rommon B2> <b>reset</b>
<b>Step 4</b>	Press <b>Return</b> at the prompt to enter the password recovery dialog, and then enter the new root-system username and password, and save the configuration.  <b>Example:</b>  router con0/0/CPU0 is now available  Press RETURN to get started.  --- Administrative User Dialog ---  Enter root-system username: user Enter secret: Enter secret again: RP/0/0/CPU0:Jan 10 12:50:53.105 : exec[65652]: %MGBL-CONFIG-6-DB_COMMIT : 'Administration configuration committed by system'. Use 'show configuration commit changes 2000000009' to view the changes. Use the 'admin' mode 'configure' command to modify this configuration.  User Access Verification  Username: user Password: RP/0/RP0/CPU0:router#	The router password is recovered successfully.

## Recovering the Root Password on Redundant-RP Routers

Use the following procedure to recover the router password from a router with redundant RPs.

## SUMMARY STEPS

1. Place both RPs in ROM Monitor mode.

2. Set the configuration register of the standby RP to 0x0 so that the standby RP does not take control during the password recovery.
3. For more information about configuration prompts that are displayed when you enter the **confreg** command. Set the boot type as 0 to enable ROM Monitor mode during the next system boot.
4. Set the active RP configuration register to 0x42:
5. Reset or power cycle the router so that the new setting takes effect.
6. Press **Return** at the prompt to enter the password recovery dialog. Then enter the new root-system username and password and save the configuration, as shown in the following example:
7. Set the configuration register of the standby RP to 0x102:
8. Reset the standby RP so that the new setting takes effect and the standby RP becomes operational.

**DETAILED STEPS**

	<b>Command or Action</b>	<b>Purpose</b>
<b>Step 1</b>	Place both RPs in ROM Monitor mode.	
<b>Step 2</b>	Set the configuration register of the standby RP to 0x0 so that the standby RP does not take control during the password recovery.  <b>Example:</b>  rommon B1> <b>confreg</b> 0x0	<b>Note</b> The configuration register is not an environment variable like TURBOBOOT. Do not enter an equal sign “(=)” when entering the <b>confreg</b> command.
<b>Step 3</b>	For more information about configuration prompts that are displayed when you enter the <b>confreg</b> command. Set the boot type as 0 to enable ROM Monitor mode during the next system boot.	
<b>Step 4</b>	Set the active RP configuration register to 0x42:	rommon B1> <b>confreg</b> 0x42
<b>Step 5</b>	Reset or power cycle the router so that the new setting takes effect.	rommon B2> <b>reset</b>
<b>Step 6</b>	Press <b>Return</b> at the prompt to enter the password recovery dialog. Then enter the new root-system username and password and save the configuration, as shown in the following example:  <b>Example:</b>  router con0/0/CPU0 is now available  Press RETURN to get started.  --- Administrative User Dialog ---  Enter root-system username: user Enter secret: Enter secret again: RP/0/RP0/CPU0:Jan 10 12:50:53.105 : exec[65652]:	The router password is recovered successfully.

	Command or Action	Purpose
	<pre>%MGBL-CONFIG-6-DB_COMMIT : 'Administration configuration committed by system'. Use 'show configuration commit changes 2000000009' to view the changes. Use the 'admin' mode 'configure' command to modify this configuration.  User Access Verification  Username: user Password: RP/0/0/CPU0:router#</pre>	
<b>Step 7</b>	Set the configuration register of the standby RP to 0x102:	rommon B3> <b>confreg 0x102</b>
<b>Step 8</b>	Reset the standby RP so that the new setting takes effect and the standby RP becomes operational.	rommon B4> <b>reset</b>

## Bypassing ksh Authentication

You can bypass the ksh authentication for the auxiliary port of the route processor (RP), standby RP, and distributed RP cards and for console and auxiliary ports of line cards (LCs) and service processors (SPs). The situations in which ksh authentication may need to be bypassed include the following:

- DSC (active RP) disk0 corruption
- Loss of Qnet connectivity
- Inability to determine the node ID of the DSC(Active RP)

For information and instructions to bypass ksh authentication, see the *Configuring AAA Services on Cisco IOS XR Software* chapter of *System Security Configuration Guide for Cisco CRS Routers*.

## Additional References

The following sections provide references related to the ROM Monitor.

### Related Documents

Related Topic	Document Title
How to bypass ksh authentication	Configuring AAA Services on Cisco IOS XR Software module of <i>System Security Configuration Guide for Cisco CRS Routers</i>

**Technical Assistance**

<b>Description</b>	<b>Link</b>
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