Password Recovery Procedure

for the Cisco 827, 1000, 1400, 1600, 2600, 3600, 4500, 4700, AS5x00, 6x00(NI-2), 6400 (NRP, NSP), 7000 (RSP7000), 7100, 7200, uBR7200, 7500, 12000, MC3810, LightStream1010, Catalyst 2948G-L3, 4840G, 4908G-L3, 5500 (RSM), 8500, Cisco VG200 Analog Gateway, and Route Processor Module

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Related Information

Description

This document describes the password recovery procedure for the following Cisco products:

- Cisco 827
- Cisco 1003
- Cisco 1004
- Cisco 1005
- Cisco 1400
- Cisco 1600
- Cisco 1700
- Cisco 2600
- Cisco 3600
- Cisco 4500
- Cisco 4700
- Cisco AS5x00
- Cisco 6x00
- Cisco 7000
- Cisco 7100
- Cisco 7200
- Cisco 7500
- Cisco uBR7200
- Cisco 12000
- Cisco LS1010
- Catalyst 2948G-L3
- Catalyst 4840G
- Catalyst 4908G-L3
- Catalyst 5500 (RSM)
- Catalyst 8510-CSR
- Catalyst 8510-MSR
- Catalyst 8540-CSR
- Catalyst 8540-MSR
- Cisco MC3810
- Cisco NI-2
- Cisco VG200 Analog Gateway
- Route Processor Module

Step-by-Step Procedure

1. Attach a terminal or PC with terminal emulation to the console port of the router. Use the following
terminal settings:

- 9600 baud rate
- No parity
- 8 data bits
- 1 stop bit
- No flow control

The required console cable specifications are described in the Cabling Guide for RJ-45 Console and AUX Ports (Cisco's 1000 series, 2500 series, and AS5100).

2. Type `show version` and record the setting of the configuration register. Click [here](http://www.cisco.com/warp/customer/474/pswdrec_1600.html) to see output of a `show version` command.

   The configuration register setting is usually 0x2102 or 0x102.

3. Using the power switch, turn off the router and then turn it on.

   **Important**: To simulate step 3 on a Cisco 6400, pull out then replace the Node Route Processor (NRP) or Node Switch Processor (NSP) card.

   **Important**: To simulate step 3 on a Cisco 6x00 using NI-2, pull out then replace the NI-2 card.

4. Press `Break` on the terminal keyboard within 60 seconds of the powerup to put the router into ROMMON.

   If the break sequence doesn't work, see Possible Key Combinations for Break Sequence During Password Recovery for other key combinations.

5. Type `confreg 0x2142` at the `rommon 1>` prompt to boot from Flash without loading the configuration.

6. Type `reset` at the `rommon 2>` prompt.

   The router reboots but ignores its saved configuration.

7. Type `no` after each setup question or press `Ctrl-C` to skip the initial setup procedure.

8. Type `enable` at the `Router>` prompt.

   You'll be in enable mode and see the `Router#` prompt.

9. **Important**: Type `config mem` or `copy start running` to copy the nonvolatile RAM (NVRAM) into memory. Do **not** type `config term`.

10. Type `wr term` or `show running`.

    The `show running` and `wr term` commands show the configuration of the router. In this configuration you see under all the interfaces the `shutdown` command, which means all interfaces are currently shutdown. Also, you can see the passwords either in encrypted or unencrypted format.
11. Type `config term` and make the changes.

   The prompt is now `hostname(config)#`.

12. Type `enable secret <password>`.

13. Issue the `no shutdown` command on every interface that is used. If you issue a `show ip interface brief` command, every interface that you want to use should be "up up".

14. Type `config-register 0x2102`, or the value you recorded in step 2.

15. Press Ctrl-z to leave the configuration mode.

   The prompt is now `hostname#`.

16. Type `write mem` or `copy running startup` to commit the changes.

**Example of Password Recovery on a Cisco 2600**

The following example shows password recovery on a Cisco 2600.

```
Router>en
Password:
Password:
Password: % Bad secrets

Router>sh ver
Cisco Internetwork Operating System Software
IOS (tm) C2600 Software (C2600-IS-M), Version 12.0(7)T, RELEASE SOFTWARE (fc2)
Copyright (c) 1986-1999 by cisco Systems, Inc.
Compiled Tue 07-Dec-99 02:21 by phanguye
Image text-base: 0x80008088, data-base: 0x80C524F8

ROM: System Bootstrap, Version 11.3(2)XA4, RELEASE Software (fc1)

Router uptime is 3 minutes
System returned to ROM by abort at PC 0x802D0B60
System image file is "flash:c2600-is-mz.120-7.T"

cisco 2611 (MPC860) processor (revision 0x202) with 26624K/6144K bytes of memory.
Processor board ID JAB031202NK (3878188963)
M860 processor: part number 0, mask 49
Bridging software.
X.25 software, Version 3.0.0.
Basic Rate ISDN software, Version 1.1.
2 Ethernet/IEEE 802.3 interface(s)
2 Serial(sync/async) network interface(s)
1 ISDN Basic Rate interface(s)
32K bytes of non-volatile configuration memory.
--More-- 8192K bytes of processor board System flash partition 1 (Read/Write)
8192K bytes of processor board System flash partition 2 (Read/Write)

Configuration register is 0x2102

Router>
```
!--- The router was just powercycled and during bootup a
!--- break sequence was sent to the router.

*** System received an abort due to Break Key ***
signal= 0x3, code= 0x500, context= 0x813ac158
PC = 0x802d0b60, Vector = 0x500, SP = 0x80006030
rommon 1 > confreg 0x2142

You must reset or power cycle for new config to take effect
rommon 2 > reset

System Bootstrap, Version 11.3(2)XA4, RELEASE SOFTWARE (fc1)
Copyright (c) 1999 by cisco Systems, Inc.
TAC:Home:SW:IOS:Specials for info
C2600 platform with 32768 Kbytes of main memory

program load complete, entry point: 0x80008000, size: 0x6fdb4c

Self decompressing the image : #################################
##########################################################
##########################################################
##########################################################
################################################### [OK]

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cisco Systems, Inc.
170 West Tasman Drive
San Jose, California 95134-1706

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

Press RETURN to get started!

00:00:19: %LINK-3-UPDOWN: Interface BRI0/0, changed state to up
00:00:19: %LINK-3-UPDOWN: Interface Ethernet0/0, changed state to up
00:00:19: %LINK-3-UPDOWN: Interface Ethernet0/1, changed state to up
00:00:19: %LINK-3-UPDOWN: Interface Serial0/0, changed state to down
00:00:19: %LINK-3-UPDOWN: Interface Serial0/1, changed state to down
00:00:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface BRI0/0, changed state to up
00:00:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/0, changed state to up
00:00:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/1, changed state to up
00:00:50: %SYS-5-RESTART: System restarted --
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00:00:50: %LINK-5-CHANGED: Interface BRI0/0, changed state to administratively down
00:00:50: %LINK-5-CHANGED: Interface Ethernet0/0, changed state to administratively down
00:00:50: %LINK-5-CHANGED: Interface Ethernet0/1, changed state to administratively down
00:00:50: %LINK-5-CHANGED: Interface Serial0/0, changed state to administratively down
00:00:50: %LINK-5-CHANGED: Interface Serial0/1, changed state to administratively down
00:00:53: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/0, changed state to up
00:00:53: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/1, changed state to up
Router>en
Router#copy start run
Destination filename [running-config]?
1324 bytes copied in 2.35 secs (662 bytes/sec)
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable secret cisco
Router(config)#^Z
00:01:54: %SYS-5-CONFIG_I: Configured from console by console
Router#sh ip int brief
Interface IP-Address OK? Method Status Protocol
Ethernet0/0 10.200.40.37 YES TFTP administratively down down
Serial0/0 unassigned YES TFTP administratively down down
BRI0/0 193.251.121.157 YES unset administratively down down
BRI0/0:1 unassigned YES TFTP administratively down down
BRI0/0:2 unassigned YES TFTP administratively down down
Ethernet0/1 unassigned YES TFTP administratively down down
Serial0/1 unassigned YES TFTP administratively down down
Loopback0 193.251.121.157 YES TFTP up up
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int Ethernet0/0
Router(config-if)#no shut
Router(config-if)#
00:02:14: %LINK-3-UPDOWN: Interface Ethernet0/0, changed state to up
00:02:15: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/0, changed state to up
Router(config-if)#int BRI0/0
Router(config-if)#no shut
Router(config-if)#
00:02:26: %LINK-3-UPDOWN: Interface BRI0/0:1, changed state to down
00:02:26: %LINK-3-UPDOWN: Interface BRI0/0:2, changed state to down
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Configuration register is 0x2142

Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#config-reg 0x2102
Router(config)#^Z

Router#sh ver
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Configuration register is 0x2142 (will be 0x2102 at next reload)

Router#

Related Information

- Password Recovery Procedures Index

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