

Cisco Password Recovery Procedure

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Password Recovery Procedure

for the Cisco 2000, 2500, 3000, 4000, AccessPro, 7000 (RP), AGS, IGS, STS-10x

Description

Step-by-Step Procedure

Example of Password Recovery on a Cisco 2500

Related Information

Description

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

- Cisco 2000
- Cisco 2500
- Cisco 3000
- Cisco 4000
- Cisco AccessPro
- Cisco 7000 (RP)
- Cisco AGS
- Cisco IGS
- Cisco STS-10x

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. Using the power switch, turn the router off and then turn it back on.
3. Send a break sequence from the terminal keyboard within 60 seconds of the power-up to put the router into ROMMON. The break sequence depends on your Operating System/Terminal Emulator. See Possible Key Combinations for Break Sequence During Password Recovery for different key combinations.
4. Type **o** at the **>** prompt and record the current value of the configuration register (usually 0x2102, or 0x102):

```
>o
Configuration register = 0x2102 at last boot
Bit#    Configuration register option settings:
15      Diagnostic mode disabled
...
```

5. Type **o/r 0x2142** at the > prompt to boot from Flash without loading the configuration.

6. Type **i** at the > 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 **write mem**.

10. Type **write 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 4.

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 2500

The example shown here is password recovery on a Cisco 2500.

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

Router>show version
Cisco Internetwork Operating System Software
IOS (tm) 2500 Software (C2500-JS-L), Version 12.0(7)T,
RELEASE SOFTWARE (fc2)
Copyright (c) 1986-1999 by cisco Systems, Inc.
Compiled Mon 06-Dec-99 17:10 by phanguye
```

Image text-base: 0x0306C4E0, data-base: 0x00001000

ROM: System Bootstrap, Version 5.2(8a), RELEASE SOFTWARE
BOOTFLASH: 3000 Bootstrap Software (IGS-RXBOOT), Version 10.2(8a),
RELEASE SOFTWARE (fc1)

Router uptime is 5 minutes
System returned to ROM by power-on
System image file is "flash:/c2500-js-1.120-7.T"

cisco 2500 (68030) processor (revision D) with 8192K/2048K bytes of memory.
Processor board ID 02315272, with hardware revision 00000000
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
TN3270 Emulation software.
1 Ethernet/IEEE 802.3 interface(s)
1 Token Ring/IEEE 802.5 interface(s)
2 Serial network interface(s)
32K bytes of non-volatile configuration memory.
16384K bytes of processor board System flash (Read ONLY)

Configuration register is 0x2102

Router>

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

Abort at 0x10EA83C (PC)

>o/r 0x2142

>i

System Bootstrap, Version 5.2(8a), RELEASE SOFTWARE
Copyright (c) 1986-1995 by cisco Systems
2500 processor with 8192 Kbytes of main memory

F3: 13626872+197596+780568 at 0x3000060

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cisco Systems, Inc.
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San Jose, California 95134-1706

Cisco Internetwork Operating System Software
IOS (tm) 2500 Software (C2500-JS-L), Version 12.0(7)T,
RELEASE SOFTWARE (fc2)
Copyright (c) 1986-1999 by cisco Systems, Inc.
Compiled Mon 06-Dec-99 17:10 by phanguye
Image text-base: 0x0306C4E0, data-base: 0x00001000

cisco 2500 (68030) processor (revision D) with 8192K/2048K bytes of memory.
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1 Ethernet/IEEE 802.3 interface(s)
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32K bytes of non-volatile configuration memory.
16384K bytes of processor board System flash (Read ONLY)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:

!--- Ctrl-C pressed

!

Press RETURN to get started!

00:00:08: %LINK-3-UPDOWN: Interface Ethernet0, changed state to up
00:00:08: %LINK-3-UPDOWN: Interface Serial0, changed state to up
00:00:08: %LINK-3-UPDOWN: Interface Serial1, changed state to up
00:00:09: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0,
changed state to up
00:00:09: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1,
changed state to up
00:01:29: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0,
changed state to up
00:01:29: %LINK-3-UPDOWN: Interface Ethernet0Translating "Router"...
domain server (255.255.255.255)
, changed state to up
00:01:30: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1,
changed state to up
00:01:31: %SYS-5-RESTART: System restarted --
Cisco Internetwork Operating System Software
IOS (tm) 2500 Software (C2500-JS-L), Version 12.0(7)T, RELEASE SOFTWARE (fc2)
Copyright (c) 1986-1999 by cisco Systems, Inc.
Compiled Mon 06-Dec-99 17:10 by phanguye
00:01:32: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0,
changed state to down
00:01:33: %LINK-5-CHANGED: Interface Ethernet0, changed state to
administratively down
00:01:33: %LINK-5-CHANGED: Interface Serial0, changed state to
administratively down
00:01:33: %LINK-5-CHANGED: Interface Serial1, changed state to
administratively down
00:01:33: %LINK-5-CHANGED: Interface TokenRing0, changed state to
administratively down
00:01:34: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0,
changed state to down
00:01:34: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1,
changed state to down
00:01:34: %LINEPROTO-5-UPDOWN: Line protocol on Interface TokenRing0,
changed state to down
Router>**enable**
Router#**copy start run**
Destination filename [running-config]?

1278 bytes copied in 10.448 secs (127 bytes/sec)

Router#**configure terminal**

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#**enable secret Cisco**

Router(config)#**int e0**

Router(config-if)#**no shut**

*Mar 1 00:04:12.863: %LINK-3-UPDOWN: Interface Ethernet0,
changed state to up

*Mar 1 00:04:13.947: %LINEPROTO-5-UPDOWN: Line protocol on

```
Interface Ethernet0, changed state to up
Router(config-if)#int s0
Router(config-if)#no shut
*Mar 1 00:04:18.107: %LINK-3-UPDOWN: Interface Serial0,
changed state to up
*Mar 1 00:04:19.167: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0,
changed state to up
Router(config-if)#int s1
Router(config-if)#no shut
Router(config-if)#
*Mar 1 00:04:27.055: %LINK-3-UPDOWN: Interface Serial1,
changed state to up
*Mar 1 00:04:28.071: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1,
changed state to up
Router(config-if)#exit
Router(config)#config-register 0x2102
Router(config)#^Z
Router#write memory
*Mar 1 00:05:09.035: %SYS-5-CONFIG_I: Configured from console by console
Building configuration...
[OK]
Router#
Router#
```

Related Information

- [Password Recovery Procedures Index](#)
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