目录

简介

本文档描述如何在运行 Cisco IOS® 系统软件的 Catalyst 6500/6000 系列交换机和 Cisco 7600 系列路由器上恢复口令。

先决条件

要求

本文档没有任何特定的要求。

使用的组件

本文适用于Supervisor 1、Supervisor2、Supervisor 720和基于虚拟交换系统(VSS)1440的系统。对于基于 Supervisor 720 的系统，仅当它运行 Cisco IOS 软件版本 12.2(17)SX 或更高版本时，本文档才适用。如果您的 Supervisor 720 运行的版本低于此版本，请参阅带有 Supervisor 720 且其运行的 Cisco IOS 系统软件版本低于 12.2(17)SX 的 Catalyst 6500 的口令恢复过程。

注意： 基于虚拟交换系统(VSS)1440的系统的支持的软件是Cisco IOS软件版本12.2(33)SXH1或以后。

背景

在运行 Cisco IOS 系统软件的 Catalyst 6500/6000 和 Cisco 7600 上，其启动顺序与 Cisco 7200 系列路由器有所不同，因为两者的硬件不一样。在您关机并重新开机方框后，交换机处理器(SP)首先启动。在一小段时间（大约 25 到 60 秒）后，它将控制台所有权转交给路由处理器 (RP (MSFC))。RP 继续加载捆绑的软件映像。请务必在 SP 将控制台控制权转交给 RP 之后立即按 **Ctrl-brk**。如果您太早发送中断序列，则您会进入 SP 的 ROMMON 模式，这不是您想要的模式。请在控制台上显示以下消息后发送中断序列：

在这之后，口令恢复过程与普通路由器一样。

注意： 从此时起，运行 Cisco IOS 系统软件的 Catalyst 6000 系列交换机称为路由器。

规则

有关文档规则的详细信息，请参阅 Cisco 技术提示规则。

逐步程序

由于交换机上运行的操作系统，交换机的配置方式与路由器相同。口令恢复过程的步骤与 Cisco 7200 系列路由器基本相同，唯一的不同是在开始中断序列之前，您必须等待大约 25 到 60 秒。

1. 将终端或带终端仿真功能的 PC 连接到路由器的控制台端口。使用以下终端设置：电缆规格文档中描述了所需的控制台电缆规格。有关如何连接到控制台端口的说明，请参阅模块安装指南。连接对控制台端口？仅Supervisor引擎部分提供有用的信息。
2. 如果您仍需要访问路由器，请发送 **show version** 命令，并且记录配置寄存器设置。通常是 0x2102 或 0x102。点击此处查看 **show version** 命令的输出。
3. 如果您无权访问路由器（由于丢失登录或 TACACS 口令），则您的配置寄存器被设置为 0x2102。
4. 请使用电源开关关闭并重新打开该路由器。
5. **警告：** 只有在 RP 获得控制台端口的控制权后才能启动中断序列。在 RP 获得控制台端口的控制权后，立即按终端键盘上的 **Break**。在运行 Cisco IOS 软件的 Catalyst 6500 上，SP 将首先启动。在它启动后，会将控制权转交给 RP。在 RP 获得控制权后，启动中断序列。在显示此消息时，RP 已获得控制台端口的控制权。（在看见以下消息前，请不要发送中断顺序信号）：从这点后，密码恢复程序就同其他路由器一样了。如果中断序列不起作用，请参阅口令恢复过程中的标准break
6. 请在 rommon 1> 键入 **confreg 0x2142**，以便在不装载配置的情况下从闪存处引导。
7. 在 rommon 2> 提示符处键入 **reset**。路由器重新启动。但是，它会忽略已保存的配置。
8. 在每个设置问题后键入 **no** 或按 Ctrl-C 跳过初始设置步骤。
9. 在 Router> 提示符处键入 **enable**。您处于**启用模式**下，并且会看到 Router# 提示。
10. **重要信息：**发出 **configure memory** 或 copy start running 命令，将非易失性 RAM (NVRAM) 复制到内存中。请不要发出 **configure terminal** 命令。
11. 发出 **write term** 或 show running 命令。show running和write terminal命令显示路由器的配置。在此配置中，**shutdown** 命令显示在所有接口下面。这意味着所有接口当前已关闭。此外，口令都采用加密或未加密格式。
12. 发出 **configure terminal** 命令以进入全局配置模式并进行更改。当前的提示是 hostname(config)#。
13. 在全局配置模式下发出 **enable secret < password >** 命令以更改启用口令。
14. 发出 **config-register 0x2102** 命令或者在全局配置模式 (Router(config)#) 第 2 步记录的值，将配置值设置回最初值。
15. 更改虚拟终端口令（如果存在）：`Router(config)#line vty 0 4Router(config-line)#password ciscoRouter(config-line)#^ZRouter#`
16. 在正常使用的每个接口上发出 **no shutdown** 命令。发出 **show ip interface brief** 命令查看接口及其当前状态的列表。您必须在启动模式 (Router#) 才能执行 **show ip interface brief** 命令。这里给出一个接口例子：

```
Router#show ip interface briefInterface                  IP-
Address       OK? Method Status                ProlVlan1                      172.17.10.10
YES TFTP   administratively down dow Vlan10                    10.1.1.1        YES TFTP
administratively down dow GigabitEthernet1/1        unassigned      YES unset
administratively down dow GigabitEthernet1/2        unassigned      YES TFTP
administratively down dow GigabitEthernet2/1        unassigned      YES TFTP
administratively down dow GigabitEthernet2/2        unassigned      YES TFTP
```

```
administratively down dow FastEthernet3/1             172.16.84.110    YES TFTP
administratively down dow <snip>...Router#configure terminalEnter configuration commands,
one per line.  End with CNTL/Z.Router(config)#interface fastEthernet 3/1Router(config-
if)#no shutdown Router(config-if)#exitRouter(config)# <do other interfaces as
necessary...>
```

17. 按下 **Ctrl-z** 离开配置模式。当前的提示 hostname#。
18. 发出 **write memory** 或 copy running startup 命令以提交更改。

示例输出

此处的示例显示一个实际口令恢复过程。本示例是在 Catalyst 6000 系列交换机上创建的。首先发出 **show version** 和 show module 命令查看本示例中使用的组件。

```
Press RETURN to get started.Router>enablePassword: Router#show versionCisco Internetwork
Operating System Software IOS (tm) c6sup1_rp Software (c6sup1_rp-JSV-M), Version 12.1(6)E, EARLY
DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001
by cisco Systems, Inc.Compiled Sat 17-Mar-01 00:14 by eaarmasImage text-base: 0x60020950, data-
base: 0x6165E000ROM: System Bootstrap, Version 12.0(3)XE, RELEASE SOFTWARE BOOTFLASH: MSFC
Software (C6MSFC-BOOT-M), Version 12.1(6)E, EARLY DEPLOYMENT RE)Router uptime is 14
minutesSystem returned to ROM by power-on (SP by reload)System image file is "sup-
bootflash:c6sup11-jsv-mz.121-6.E"Cisco Catalyst 6000 (R5000) processor with 114688K/16384K bytes
of memory.Processor board ID SAD04281AF6R5000 CPU at 200Mhz, Implementation 35, Rev 2.1, 512KB
L2 CacheLast reset from power-onBridging software.X.25 software, Version 3.0.0.SuperLAT software
(copyright 1990 by Meridian Technology Corp).TN3270 Emulation software.24 Ethernet/IEEE 802.3
interface(s)2 Virtual Ethernet/IEEE 802.3  interface(s)48 FastEthernet/IEEE 802.3 interface(s)4
Gigabit Ethernet/IEEE 802.3 interface(s)381K bytes of non-volatile configuration memory.4096K
bytes of packet SRAM memory.16384K bytes of Flash internal SIMM (Sector size 256K).Configuration
register is 0x2102Router#Router#show moduleSlot Ports Card Type
Model                 Serial Number---- ----- -------------------------------------- --------
------------ ----------- 1     2   Cat 6000 sup 1 Enhanced QoS (active)      WS-X6K-SUP1A-2GE
SAD043301JS    2     2   Cat 6000 sup 1 Enhanced QoS (standby)     WS-X6K-SUP1A-2GE
SAD03510114    3    48   48 port 10/100 mb RJ45                    WS-X6348-RJ-45
SAD04230FB6    6    24   24 port 10baseFL                          WS-X6024-10FL-MT
SAD03413322   Slot MAC addresses                       Hw    Fw           Sw---- ----------------
------------------ ----- ------------ ---------- 1   00d0.c0d2.5540 to 00d0.c0d2.5541   3.2
unknown      6.1(0.105)OR 2   00d0.bcf1.9bb8 to 00d0.bcf1.9bb9   3.2   unknown      6.1(0.105)OR
3   0002.7ef1.36e0 to 0002.7ef1.370f   1.1   5.3(1) 1999- 6.1(0.105)OR 6   00d0.9738.5338 to
00d0.9738.534f   0.206 5.3(1) 1999- 6.1(0.105)ORRouter#Router#reloadProceed with reload?
[confirm]!--- Here you turn off the power and then turn it back on. !--- Here it is done with a
reload instead of a hard power-cycle.00:15:28: %SYS-SP-3-LOGGER_FLUSHING: System pausing to
ensure console debugging.00:15:27: %C6KPWR-SP-4-DISABLED: power to module in slot 2 set off
(admin reque)00:15:28: %C6KPWR-SP-4-DISABLED: power to module in slot 3 set off (admin
reque)00:15:28: %C6KPWR-SP-4-DISABLED: power to module in slot 6 set off (admin reque)00:15:28:
%OIR-SP-6-CONSOLE: Changing console ownership to switch processor00:15:28: %SYS-SP-3-
LOGGER_FLUSHED: System was paused for 00:00:00 to ensure co.00:15:30: %SYS-SP-3-LOGGER_FLUSHING:
System pausing to ensure console debugging.****** --- SHUTDOWN NOW ---***00:15:30: %SYS-SP-5-
RELOAD: Reload requested00:15:30: %OIR-SP-6-CONSOLE: Changing console ownership to switch
processor00:15:30: %SYS-SP-3-LOGGER_FLUSHED: System was paused for 00:00:00 to ensure
co.00:15:31: %OIR-SP-6-REMCARD: Card removed from slot 1, interfaces disabled!--- First, the
switch processor comes up.System Bootstrap, Version 5.3(1)Copyright (c) 1994-1999 by cisco
Systems, Inc.c6k_sup1 processor with 65536 Kbytes of main memoryAutoboot executing command:
"boot bootflash:c6sup11-jsv-mz.121-6.E"Self decompressing the image :
##############################################] Restricted Rights LegendUse, duplication, or
disclosure by the Government issubject to restrictions as set forth in subparagraph(c) of the
Commercial Computer Software - RestrictedRights clause at FAR sec. 52.227-19 and subparagraph(c)
(1) (ii) of the Rights in Technical Data and ComputerSoftware clause at DFARS sec. 252.227-7013.
Cisco Systems, Inc. 170 West Tasman Drive San Jose, California 95134-1706Cisco Internetwork
Operating System Software IOS (TM) c6sup1_sp Software (c6sup1_sp-SPV-M), Version 12.1(6)E, EARLY
DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001
by cisco Systems, Inc.Compiled Sat 17-Mar-01 00:52 by eaarmasImage text-base: 0x60020950,
database: 0x605FC000Start as Primary processor00:00:03: %SYS-3-LOGGER_FLUSHING: System pausing
```

to ensure console debugging ou.**00:00:03: %OIR-6-CONSOLE: Changing console ownership to route processor***!--- The RP now has control of the console. !--- This is when you send the break sequence.*System Bootstrap, Version 12.0(3)XE, RELEASE SOFTWARE Copyright (c) 1998 by cisco Systems, Inc.*** Address Error (Load/Fetch) Exception ***Access address = 0x5ePC = 0x5e, Cause = 0x10, Status Reg = 0x3040d003ROM Monitor Can Not Recover From ExceptionA Board Reset Is Issued*** Software NMI ***PC = 0xbfc0b6b0, SP = 0x00002a90Cat6k-MSFC platform with 131072 Kbytes of main memorySelf decompressing the image : ##]*** System received an abort due to Break Key ***signal= 0x3, code= 0x0, context= 0x6049ed68PC = 0x601011ac, Cause = 0x20, Status Reg = 0x34008002*!--- You are now in ROMMON mode on the RP. Continue the password !--- recovery procedure just as on any router. Changing the configuration !--- register from 0x2102 to 0x2142 causes the router to ignore the existing !--- configuration. You want it to be ignored because it has passwords that you do not !--- know.*rommon 1 > **confreg 0x2142**You must reset or power cycle for new config to take effectrommon 2 > **reset** System Bootstrap, Version 12.0(3)XE, RELEASE SOFTWARE Copyright (c) 1998 by cisco Systems, Inc.Cat6k-MSFC platform with 131072 Kbytes of main memorySelf decompressing the image : ##]Attempt to download 'sup-bootflash:c6sup11-jsv-mz.121-6.E' ... okayStarting download of 'sup-bootflash:c6sup11-jsv-mz.121-6.E': 8722810 bytes!!!!!!Chksum: Verified!Self decompressing the image : ##] Restricted Rights LegendUse, duplication, or disclosure by the Government issubject to restrictions as set forth in subparagraph(c) of the Commercial Computer Software - RestrictedRights clause at FAR sec. 52.227-19 and subparagraph(c) (1) (ii) of the Rights in Technical Data and ComputerSoftware clause at DFARS sec. 252.227-7013. Cisco Systems, Inc. 170 West Tasman Drive San Jose, California 95134-1706Cisco Internetwork Operating System Software IOS (TM) c6sup1_RP Software (c6sup1_rp-JSV-M), Version 12.1(6)E, EARLY DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001 by Cisco Systems, Inc.Compiled Sat 17-Mar-01 00:14 by eaarmasImage text-base: 0x60020950, database: 0x6165E000Cisco Catalyst 6000 (R5000) processor with 114688K/16384K bytes of memory.Processor board ID SAD04281AF6R5000 CPU at 200Mhz, Implementation 35, Rev 2.1, 512KB L2 CacheLast reset from power-onBridging software.X.25 software, Version 3.0.0.SuperLAT software (copyright 1990 by Meridian Technology Corp).TN3270 Emulation software.24 Ethernet/IEEE 802.3 interface(s)1 Virtual Ethernet/IEEE 802.3 interface(s)48 FastEthernet/IEEE 802.3 interface(s)4 Gigabit Ethernet/IEEE 802.3 interface(s)381K bytes of nonvolatile configuration memory.4096K bytes of packet SRAM memory.16384K bytes of Flash internal SIMM (Sector size 256K). --- System Configuration Dialog ---Would you like to enter the initial configuration dialog? [yes/no]: n*!--- The router ignores the saved configuration and enters !--- the initial configuration mode.*Press RETURN to get started!00:00:03: %SYS-3-LOGGER_FLUSHED: System was paused for 00:00:00 to ensure conso.00:00:04: %C6KPWR-4-PSINSERTED: power supply inserted in slot 1.00:00:04: %C6KPWR-4-PSOK: power supply 1 turned on.00:02:08: %SYS-SP-5-RESTART: System restarted --Cisco Internetwork Operating System Software IOS (TM) c6sup1_SP Software (c6sup1_sp-SPV-M), Version 12.1(6)E, EARLY DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001 by cisco Systems, Inc.Compiled Sat 17-Mar-01 00:52 by eaarmas00:02:13: L3-MGR: l2 flush entry installed00:02:13: L3-MGR: l3 flush entry installed00:02:14: %SYS-5-RESTART: System restarted --Cisco Internetwork Operating System Software IOS (TM) c6sup1_RP Software (c6sup1_rp-JSV-M), Version 12.1(6)E, EARLY DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001 by Cisco Systems, Inc.Compiled Sat 17-Mar-01 00:14 by eaarmas00:02:17: %C6KPWR-SP-4-DISABLED: power to module in slot 1 set off (admin reque)00:02:18: %C6KPWR-SP-4-ENABLED: power to module in slot 3 set on00:02:18: %C6KPWR-SP-4-ENABLED: power to module in slot 6 set on00:02:28: sm_set_moduleFwVersion: nonexistent module (1)00:02:38: %SNMP-5-MODULETRAP: Module 1 [Up] Trap00:02:38: %OIR-SP-6-INSCARD: Card inserted in slot 1, interfaces are now online00:02:56: %SNMP-5-MODULETRAP: Module 6 [Up] Trap00:02:56: %OIR-SP-6-INSCARD: Card inserted in slot 6, interfaces are now online00:02:59: SP: SENDING INLINE_POWER_DAUGHTERCARD_MSG SCP MSG00:02:59: %SNMP-5-MODULETRAP: Module 3 [Up] Trap00:02:59: %OIR-SP-6-INSCARD: Card inserted in slot 3, interfaces are now onlineRouter>**enable**Router#*!--- You go right into privilege mode without needing a password. !--- At this point, the configuration running-config is a default configuration !--- with all the ports administratively down (shutdown).*Router#**copy startup-config running-config**Destination filename [running-config]? <press enter>*!--- This pulls in the original configuration. Since you are already in privilege !--- mode, the passwords in this configuration do not affect you.*4864 bytes copied in 2.48 secs (2432 bytes/sec)Router#**configure terminal**Enter configuration commands, one per line. End with CNTL/Z.Router(config)#**enable secret < password > [Choose a strong password with at least one capital letter, one number, and one special character.]***!--- Overwrite the password that you do not know. This is your new enable password.*Router(config)#**^Z**Router#Router#**show ip interface brief**Interface IP-Address OK? Method Status ProlVlan1

```
172.17.10.10    YES TFTP   administratively down dow Vlan10                    10.1.1.1
YES TFTP   administratively down dow GigabitEthernet1/1         unassigned      YES unset
administratively down dow GigabitEthernet1/2         unassigned      YES TFTP   administratively
down dow GigabitEthernet2/1         unassigned      YES TFTP   administratively down dow
GigabitEthernet2/2         unassigned      YES TFTP   administratively down dow FastEthernet3/1
172.16.84.110   YES TFTP   administratively down dow <snip>...!--- Issue the no shut command on
all interfaces that you want to bring up.Router#configure terminalEnter configuration commands,
one per line.  End with CNTL/Z.Router(config)#interface fastEthernet 3/1Router(config-if)#no
shutdown Router(config-if)#exit!--- Overwrite the virtual terminal passwords.
Router(config)#line vty 0 4Router(config-line)#password ciscoRouter(config-line)#^ZRouter#!---
Restore the configuration register to its normal state so that it !--- no longer ignores the
stored configuration file.Router#show versionCisco Internetwork Operating System Software IOS
(tm) c6sup1_rp Software (c6sup1_rp-JSV-M), Version 12.1(6)E, EARLY DEPLOYME)TAC Support:
http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001 by cisco Systems,
Inc.Compiled Sat 17-Mar-01 00:14 by eaarmasImage text-base: 0x60020950, data-base:
0x6165E000ROM: System Bootstrap, Version 12.0(3)XE, RELEASE SOFTWARE BOOTFLASH: MSFC Software
(C6MSFC-BOOT-M), Version 12.1(6)E, EARLY DEPLOYMENT RE)Router uptime is 7 minutesSystem returned
to ROM by power-on (SP by reload)System image file is "sup-bootflash:c6sup11-jsv-mz.121-
6.E"Cisco Catalyst 6000 (R5000) processor with 114688K/16384K bytes of memory.Processor board ID
SAD04281AF6R5000 CPU at 200Mhz, Implementation 35, Rev 2.1, 512KB L2 CacheLast reset from power-
onBridging software.X.25 software, Version 3.0.0.SuperLAT software (copyright 1990 by Meridian
Technology Corp).TN3270 Emulation software.24 Ethernet/IEEE 802.3 interface(s)2 Virtual
Ethernet/IEEE 802.3  interface(s)48 FastEthernet/IEEE 802.3 interface(s)4 Gigabit Ethernet/IEEE
802.3 interface(s)381K bytes of non-volatile configuration memory.4096K bytes of packet SRAM
memory.16384K bytes of Flash internal SIMM (Sector size 256K).Configuration register is
0x2142Router#configure terminalEnter configuration commands, one per line.  End with
CNTL/Z.Router(config)#config-register 0x2102Router(config)#^ZRouter#!--- Verify that the
configuration register is changed for the next reload.Router#show versionCisco Internetwork
Operating System Software IOS (tm) c6sup1_rp Software (c6sup1_rp-JSV-M), Version 12.1(6)E, EARLY
DEPLOYME)TAC Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=supportCopyright (c) 1986-2001
by cisco Systems, Inc.Compiled Sat 17-Mar-01 00:14 by eaarmasImage text-base: 0x60020950, data-
base: 0x6165E000ROM: System Bootstrap, Version 12.0(3)XE, RELEASE SOFTWARE BOOTFLASH: MSFC
Software (C6MSFC-BOOT-M), Version 12.1(6)E, EARLY DEPLOYMENT RE)Router uptime is 8 minutesSystem
returned to ROM by power-on (SP by reload)System image file is "sup-bootflash:c6sup11-jsv-
mz.121-6.E"Cisco Catalyst 6000 (R5000) processor with 114688K/16384K bytes of memory.Processor
board ID SAD04281AF6R5000 CPU at 200Mhz, Implementation 35, Rev 2.1, 512KB L2 CacheLast reset
from power-onBridging software.X.25 software, Version 3.0.0.SuperLAT software (copyright 1990 by
Meridian Technology Corp).TN3270 Emulation software.24 Ethernet/IEEE 802.3 interface(s)2 Virtual
Ethernet/IEEE 802.3  interface(s)48 FastEthernet/IEEE 802.3 interface(s)4 Gigabit Ethernet/IEEE
802.3 interface(s)381K bytes of non-volatile configuration memory.4096K bytes of packet SRAM
memory.16384K bytes of Flash internal SIMM (Sector size 256K).Configuration register is 0x2142
(will be 0x2102 at next reload)Router#Router#copy running-config startup-configDestination
filename [startup-config]? <press enter>Building configuration...[OK]Router#!--- Optional: If
you want to test that the router !--- operates properly and that you have changed !--- the
passwords, then reload and test.Router#reloadProceed with reload? [confirm] <press enter>
```

相关信息

- LAN 交换技术支持页
- LAN 产品支持页
- Catalyst LAN 和 ATM 交换机产品支持
- 技术支持 - Cisco Systems