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简介

本文档介绍如何在运行 Cisco IOS® 系统软件 (版本低于 12.2(17)SX) 的 Catalyst 6500 系列交换机 (带有 Supervisor 720) 上恢复口令。

是步骤的原因不同的为 Cisco IOS 软件版本在 12.2(17)SX 之前是 Cisco Bug ID [CSCec36997](#) ([仅限注册用户](#)) (在 sup720-native 的密码恢复在交换机处理器 (SP) 导致失败)。如果您的交换机受此 Bug 影响，在进入 RP ROMMON 后，您大约有 10 秒的时间将配置寄存器更改为 0x2142。在这 10 秒后，交换机将通过软件强制重新加载进行重新加载。但是，如果您在崩溃前将配置寄存器更改为此值，则此值将在重新加载后生效，并且您可以继续执行剩余过程。

先决条件

要求

本文档没有任何特定的要求。

使用的组件

本文档适用于运行版本低于 12.2(17)SX 的 Cisco IOS 软件且基于 Supervisor 720 的系统。如果 Supervisor 720 运行 Cisco IOS 软件版本 12.2(17)SX 或更高版本，请参阅[运行 Cisco IOS 系统软件的 Catalyst 6000/6500 系列交换机的口令恢复过程](#)文档。

概述

由于硬件不同，运行 Cisco IOS 的 Catalyst 6500/6000 的启动顺序与 Cisco 7200 系列路由器的启动顺序不同。在为机箱重新通电后，SP 将启动。大约 25-60 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-Break**。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 软件的 Catalyst 6500 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 Cisco IOS 操作系统，因此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 系列路由器相同。不同之处是在开始发送中断序列之前，您必须多等待 25-60 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](#)。[连接到控制台端口 - 仅 Supervisor 引擎](#)部分提供了有用的信息。
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。单击[此处](#)可查看 **show version** 命令的输出示例。
3. 如果您无法访问路由器（由于丢失登录口令或 TACACS 口令），则将配置寄存器设置为 0x2102 较安全。
4. 使用电源开关先关闭路由器电源，然后再将其打开。
5. 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 的 Catalyst 6500 上，SP 先启动。然后，它将控制权转交给 RP。在 RP 获得控制权后，启动中断序列。当显示此消息时，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）：由于 Cisco Bug ID [CSCec36997](#)（[仅限注册用户](#)）（在本地 Sup720 上恢复口令导致 SP 崩溃），在交换机崩溃之前，您大约有 10 秒的时间完成步骤 6。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. 交换机因软件强制崩溃而崩溃：路由器重新启动。但是，由于配置寄存器设置为 0x2142，路由器将忽略其保存的配置。如果您看到路由器配置仍然存在（仍是先前的主机名），它表明在崩溃之前，配置寄存器未被及时更换为 0x2142。如果出现这种情况，请重新启动（步骤 4）。如果配置寄存器已正确地更改为 0x2142，则重新加载后，会显示初始配置问题。
8. 在每个设置问题后面键入 **no**，或者按 Ctrl-C 跳过初始设置程序。
9. 在 Router> 提示符处键入 **enable**。现在您处于**启用模式**，且显示了 Router# 提示符。
10. 发出 **configure memory** 或 **copy start running** 命令将非易失性 RAM (NVRAM) 复制到内存中，此操作**很重要**。请不要发出 **configure terminal** 命令。
11. 发出 **write terminal** 或 **show running** 命令。这些命令将显示路由器的配置。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 >** 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. 更改所有虚拟终端口令（如果存在虚拟终端）：`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 **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 6500 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. sup720>enablePassword: sup720#sup720#show versionCisco Internetwork
Operating System Software IOS (tm) s72033_rp Software (s72033_rp-PS-M), Version 12.2(14)SX1,
EARLY DEPLOY)TAC Support: http://www.cisco.com/tacCopyright (c) 1986-2003 by cisco Systems,
Inc.Compiled Tue 27-May-03 20:40 by ccaiImage text-base: 0x40008C10, data-base: 0x41ACE000 ROM:
System Bootstrap, Version 12.2(14r)S9, RELEASE SOFTWARE (fc1)BOOTLDR: s72033_rp Software
(s72033_rp-PS-M), Version 12.2(14)SX1, EARLY DEPLOY) sup720 uptime is 18 minutesTime since
sup720 switched to active is 17 minutesSystem returned to ROM by power-on (SP by reload)System
image file is "disk0:s72033-ps-mz.122-14.SX1.bin" cisco Catalyst 6000 (R7000) processor with
458752K/65536K bytes of memory.Processor board ID SR71000 CPU at 600Mhz, Implementation 0x504,
Rev 1.2, 512KB L2 CacheLast reset from power-onX.25 software, Version 3.0.0.Bridging software.3
Virtual Ethernet/IEEE 802.3 interface(s)96 FastEthernet/IEEE 802.3 interface(s)58 Gigabit
Ethernet/IEEE 802.3 interface(s)1917K bytes of non-volatile configuration memory.8192K bytes of
packet buffer memory. 65536K bytes of Flash internal SIMM (Sector size 512K).Configuration
register is 0x2102 sup720#sup720#show moduleMod Ports Card Type
Model Serial No.-----
----- 1 16 16 port GE RJ45 WS-X6316-GE-TX SAD04100A9R 2
48 48 port 10/100 mb RJ-45 ethernet WS-X6248-RJ-45 SAD041402P9 4 16 SFM-capable
16 port 1000mb GBIC WS-X6516A-GBIC SAL0705CD7X 5 2 Supervisor Engine 720
(Active) WS-SUP720-BASE SAD070600MU 7 24 aCEF720 24 port 1000mb SFP
WS-X6724-SFP SAD0725035Y 9 48 48-port 10/100 mb RJ45 WS-X6148-RJ45V
SAL06282HGE Mod MAC addresses Hw Fw Sw Status--- --
----- 1 00d0.9738.702a to
00d0.9738.7039 0.202 5.3(1) 7.7(0.74)APP Ok 2 0001.9709.5c90 to 0001.9709.5cbf
1.2 5.1(1)CSX 7.7(0.74)APP Ok 4 0009.11f6.aa28 to 0009.11f6.aa37 1.0 7.2(1)
7.7(0.74)APP Ok 5 000c.3042.844c to 000c.3042.844f 1.0 7.7(1) 12.2(14)SX1 Ok
7 0030.f272.2666 to 0030.f272.267d 1.0 12.2(14r)S5 12.2(14)SX1 PwrDown 9
0009.127c.8d40 to 0009.127c.8d6f 1.0 5.4(2) 7.7(0.74)APP Ok Mod Sub-Module
Model Serial Hw Status ---
----- 5 Policy Feature Card 3 WS-F6K-PFC3A SAD070601DR
1.0 Ok 5 MSFC3 Daughterboard WS-SUP720 SAD070500YF 1.0 Ok 7
unknown FRU type (major = 0 WS-F6700-CFC SAD073201KC 1.0 PwrDown 9 Inline Power
Module WS-F6K-PWR 1.0 Ok Mod Online Diag Status ---
-----
----- 1 Pass 2 Pass 4 Pass 5 Pass
7 Unknown 9 Pass sup720#sup720#sup720#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. *Sep 29 04:21:13: %SYS-5-RELOAD: Reload requested by
console.*Sep 29 04:21:16: %OIR-SP-6-CONSOLE: Changing console ownership to switch procer *Sep 29
04:21:18: %SYS-SP-5-RELOAD: Reload requested*Sep 29 04:21:18: %OIR-SP-6-CONSOLE: Changing
console ownership to switch procer ***** --- SHUTDOWN NOW ---*** !--- First, the switch
processor comes up. System Bootstrap, Version 7.7(1)Copyright (c) 1994-2003 by cisco Systems,
Inc.Cat6k-Sup720/SP processor with 524288 Kbytes of main memory Autoboot executing command:
"boot disk0:s72033-ps-mz.122-14.SX1.bin" Self decompressing the image :

```



```

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. 00:00:46: curr is 0x10000
00:00:46: RP: Currently running ROMMON from F1 region00:01:00: %SYS-5-RESTART: System restarted
--Cisco Internetwork Operating System Software IOS (tm) s72033_rp Software (s72033_rp-PS-M),
Version 12.2(14)SX1, EARLY DEPLOY)TAC Support: http://www.cisco.com/tacCopyright (c) 1986-2003
by cisco Systems, Inc.Compiled Tue 27-May-03 20:40 by ccai00:01:00: %SNMP-5-COLDSTART: SNMP
agent on host Router is undergoing a cold stat00:01:00: %SYS-6Router>-BOOTTIME: Time taken to
reboot after reload = 1807 seconds Firmware compiled 19-May-03 10:54 by integ Build [100]
00:00:54: %SPANTREE-SP-5-EXTENDED_SYSID: Extended SysId enabled for type vlan00:00:54: SP: SP:
Currently running ROMMON from F1 region00:01:00: %SYS-SP-5-RESTART: System restarted --Cisco
Internetwork Operating System Software IOS (tm) s72033_sp Software (s72033_sp-SP-M), Version
12.2(14)SX1, EARLY DEPLOY)TAC Support: http://www.cisco.com/tacCopyright (c) 1986-2003 by cisco
Systems, Inc.Compiled Tue 27-May-03 20:48 by ccai00:01:01: %OIR-SP-6-INSPS: Power supply
inserted in slot 100:01:01: %C6KPWR-SP-4-PSOK: power supply 1 turned on.00:01:01: %OIR-SP-6-
INSPS: Power supply inserted in slot 200:01:01: %C6KPWR-SP-4-PSOK: power supply 2 turned
on.00:01:01: %C6KPWR-SP-4-PSREDUNDANTBOTHSUPPLY: in power-redundancy mode, system .00:01:05:
%FABRIC-SP-5-FABRIC_MODULE_ACTIVE: the switching fabric module in sloe00:01:06: %DIAG-SP-6-
RUN_MINIMUM: Module 5: Running Minimum Diagnostics...Router>Router>00:01:18: %DIAG-SP-6-DIAG_OK:
Module 5: Passed Online Diagnostics00:01:18: %OIR-SP-6-INSCARD: Card inserted in slot 5,
interfaces are now online00:01:21: %DIAG-SP-6-RUN_MINIMUM: Module 4: Running Minimum
Diagnostics...Router>Router>Router>00:01:36: %DIAG-SP-6-RUN_MINIMUM: Module 9: Running Minimum
Diagnostics...Router>Router>00:01:42: %DIAG-SP-6-RUN_MINIMUM: Module 1: Running Minimum
Diagnostics...00:01:44: %DIAG-SP-6-DIAG_OK: Module 4: Passed Online Diagnostics00:01:45: %OIR-
SP-6-INSCARD: Card inserted in slot 4, interfaces are now online00:01:54: %DIAG-SP-6-DIAG_OK:
Module 9: Passed Online Diagnostics00:01:54: %OIR-SP-6-INSCARD: Card inserted in slot 9,
interfaces are now online00:01:57: %DIAG-SP-6-DIAG_OK: Module 1: Passed Online
Diagnostics00:01:57: %OIR-SP-6-INSCARD: Card inserted in slot 1, interfaces are now
online00:02:06: %DIAG-SP-6-RUN_MINIMUM: Module 2: Running Minimum Diagnostics...00:02:15: %DIAG-
SP-6-DIAG_OK: Module 2: Passed Online Diagnostics00:02:15: %OIR-SP-6-INSCARD: Card inserted in
slot 2, interfaces are now onlineRouter>Router>enableRouter# !--- 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-configDestination filename [running-config]? <press enter> !--- This
pulls in your original configuration. Since you are already in privilege !--- mode, the
passwords in this configuration (that are not known) do not affect you. 4864 bytes copied in
2.48 secs (2432 bytes/sec)sup720#sup720#configure terminalEnter configuration commands, one per
line. End with CNTL/Z.sup720(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. sup720#show ip interface briefInterface
IP-Address OK? Method Status ProlVlan1 10.48.72.142
YES TFTP administratively down dow Vlan500 10.1.1.1 YES TFTP
administratively down dow Vlan501 10.2.2.1 YES TFTP administratively
down dow GigabitEthernet1/1 unassigned YES TFTP administratively down dow
GigabitEthernet1/2 unassigned YES TFTP administratively down dow
GigabitEthernet1/3 unassigned YES TFTP administratively down dow
GigabitEthernet1/4 unassigned YES TFTP administratively down dow
GigabitEthernet1/5 unassigned YES TFTP administratively down dow
GigabitEthernet1/6 unassigned YES TFTP administratively down dow
GigabitEthernet1/7 unassigned YES TFTP administratively down dow <snip>... !---
Issue the no shut command on all interfaces that you want to bring up. sup720#configure
terminalEnter configuration commands, one per line. End with CNTL/Z.sup720(config)#interface
gig 1/1 sup720(config-if)#no shutsup720(config-if)#^Zsup720# !--- Overwrite the virtual terminal
passwords. sup720#configure terminalsup720(config)#line vty 0 4sup720(config-line)#password
XXXsup720(config-line)#^Zsup720# !--- Restore the configuration register to its normal state !-
-- so that it no longer ignores the stored configuration file. sup720#show versionCisco
Internetwork Operating System Software IOS (tm) s72033_rp Software (s72033_rp-PS-M), Version
12.2(14)SX1, EARLY DEPLOY)TAC Support: http://www.cisco.com/tacCopyright (c) 1986-2003 by cisco
Systems, Inc.Compiled Tue 27-May-03 20:40 by ccaiImage text-base: 0x40008C10, data-base:
0x41ACE000 ROM: System Bootstrap, Version 12.2(14r)S9, RELEASE SOFTWARE (fc1)BOOTLDR: s72033_rp
Software (s72033_rp-PS-M), Version 12.2(14)SX1, EARLY DEPLOY) sup720 uptime is 4 minutesTime
since sup720 switched to active is 4 minutesSystem returned to ROM by power-on (SP by error - a
Software forced crash, PC 0)System image file is "disk0:s72033-ps-mz.122-14.SX1.bin" cisco
Catalyst 6000 (R7000) processor with 458752K/65536K bytes of memory.Processor board ID SR71000
CPU at 600Mhz, Implementation 0x504, Rev 1.2, 512KB L2 CacheLast reset from power-onX.25

```

```
software, Version 3.0.0.Bridging software.3 Virtual Ethernet/IEEE 802.3 interface(s)96
FastEthernet/IEEE 802.3 interface(s)58 Gigabit Ethernet/IEEE 802.3 interface(s)1917K bytes of
non-volatile configuration memory.8192K bytes of packet buffer memory. 65536K bytes of Flash
internal SIMM (Sector size 512K).Configuration register is 0x2142sup720#sup720#configure
terminalEnter configuration commands, one per line. End with CNTL/Z.sup720(config)#config-
register 0x2102sup720(config)# !--- Verify that the configuration register is changed for the
next reload. sup720#show versionCisco Internetwork Operating System Software IOS (tm) s72033_rp
Software (s72033_rp-PS-M), Version 12.2(14)SX1, EARLY DEPLOY)TAC Support:
http://www.cisco.com/tacCopyright (c) 1986-2003 by cisco Systems, Inc.Compiled Tue 27-May-03
20:40 by ccaiImage text-base: 0x40008C10, data-base: 0x41ACE000 ROM: System Bootstrap, Version
12.2(14r)S9, RELEASE SOFTWARE (fc1)BOOTLDR: s72033_rp Software (s72033_rp-PS-M), Version
12.2(14)SX1, EARLY DEPLOYsup720 uptime is 4 minutesTime since sup720 switched to active is 4
minutesSystem returned to ROM by power-on (SP by error - a Software forced crash, PC 0)System
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Rev 1.2, 512KB L2 CacheLast reset from power-onX.25 software, Version 3.0.0.Bridging software.3
Virtual Ethernet/IEEE 802.3 interface(s)96 FastEthernet/IEEE 802.3 interface(s)58 Gigabit
Ethernet/IEEE 802.3 interface(s)1917K bytes of non-volatile configuration memory.8192K bytes of
packet buffer memory. 65536K bytes of Flash internal SIMM (Sector size 512K).Configuration
register is 0x2142 (will be 0x2102 at next reload)sup720#sup720#copy running-config startup-
configDestination filename [startup-config]? <press enter>Building configuration...[OK]sup720#
!--- Optional: If you want to test that the router operates properly and that you have changed
the passwords, !--- reload and test. sup720#reload Proceed with reload? [confirm] <press enter>
```

相关信息

- [LAN 产品支持页](#)
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