恢复带Supervisor引擎的Catalyst 4500/4900交换机的密码

目录

简介

本文档介绍如何在具有运行Cisco IOS®软件的Supervisor引擎的Catalyst 4500/4900交换机上恢复丢失的口令。

先决条件

要求

本文档没有任何特定的要求。

使用的组件

本文档不限于特定的软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

规则

有关文档规则的详细信息，请参阅 Cisco 技术提示规则。

背景信息

✎ 注：在Catalyst 4500/4000系列交换机中，Supervisor引擎II+、II+10GE、II+TS、III、IV、V和V-10GE仅支持Cisco IOS软件。

本文档介绍了如何在配有 Supervisor 引擎 II-Plus (WS-X4013+)、Supervisor 引擎 II-Plus-TS (WS-X4013+TS)、Supervisor 引擎 II-Plus-10GE (WS-X4013+10GE)、Supervisor 引擎 III (WS-X4014)、Supervisor 引擎 IV (WS-X4515)、Supervisor 引擎 V (WS-X4516)、Supervisor 引擎 V-10GE (WS-X4516-10GE) 模块的 Catalyst 4500/4000 交换机，以及 Cisco Catalyst 4948、Cisco Catalyst 4948 10GE 和 Cisco Catalyst 4900M 交换机上恢复丢失的口令或未知的口令。

配置流程

要在Catalyst 4500/4900交换机上恢复密码，请执行以下操作：

✎ 注意：在执行这些步骤时，请确保您对交换机有物理访问权限，并且您对Supervisor引擎模块使用控制台访问权限。有关交换机控制台连接的详细信息，请参阅将调制解调器连接到Catalyst交换机的控制台端口。

🔍 提示：如果遵循上述步骤，交换机配置不会丢失。作为最佳实践，Cisco 建议您在 TFTP 服务器或网络管理服务器上为所有 Cisco 设备的配置创建备份副本。

---

1. 为设备重新通电。

   要为设备重新通电，请将其关闭，然后再打开。

   在 5 秒内按 Ctrl-C 可防止自动启动。此操作将使您进入 ROM Monitor (ROMmon) 提示符模式。

   <#root>

   ```
    !--- Here, you power cycle the switch.

    ************************************************************
    *                                                          *
    * Welcome to ROM Monitor for WS-X4014 System.              *
    * Copyright (c) 1999-2000, 2001 by Cisco Systems, Inc.     *
    * All rights reserved.                                     *
    *                                                          *
    ************************************************************

     ROM Monitor Program Version 12.1(10r)EY(1.21)

     Board type 1, Board revision 7
     Swamp FPGA revision 16, Dagobah FPGA revision 43

     Timer interrupt test passed.

     MAC Address  : 00-02-b9-83-af-fe
     IP Address   : 172.16.84.122
     Netmask      : 255.255.255.0
     Gateway      : 172.16.84.1
     TftpServer   : Not set.
     Main Memory  : 256 MBytes
   ```

```
 ***** The system will autoboot in 5 seconds *****

 Type control-C to prevent autobooting.



!--- At this point, press Ctrl-C.



Autoboot cancelled......... please wait!!!
Autoboot cancelled........ please wait!!!

rommon 1

 > [interrupt]


!--- The module ended in the ROMmon.



rommon 1

 > [interrupt]
```

2. 在提示 confreg 符下发出 rommon 命令。

选择此处显示为粗体字的内容以用于口令恢复：

```
    <#root>


rommon 1 >



set




    <#root>


rommon 1 >
```

confreg


```
 Configuration Summary :
 => load ROM after netboot fails
 => console baud: 9600
 => autoboot from: commands specified in 'BOOT' environment variable

 do you wish to change the configuration? y/n  [n]:
```

y

```
  enable  "diagnostic mode"? y/n  [n]:
```

n

```
  enable  "use net in IP bcast address"? y/n  [n]:
```

n

```
  disable "load ROM after netboot fails"? y/n  [n]:
```

n

```
  enable  "use all zero broadcast"? y/n  [n]:
```

n

```
 enable  "break/abort has effect"? y/n  [n]:



n



 enable  "ignore system config info"? y/n  [n]:



y



 change console baud rate? y/n  [n]:



n



 change the boot characteristics? y/n  [n]:



n



 Configuration Summary :
 => load ROM after netboot fails
 => ignore system config info
 => console baud: 9600
 => autoboot from: commands specified in 'BOOT' environment variable

 do you wish to save this configuration? y/n  [n]:



 y
```

```
You must reset or power cycle for new configuration to take effect
```

📝 **注**：您也可以在ROMmon**confreg 0x2142**提示符处使用命令，设置配置寄存器值以绕过NVRAM中存储的启动配置。

<#root>

```
rommon 1 >
```

confreg 0x2142

```
You must reset or power cycle for the new configuration to take effect.
```

-

发出命 reset 令，以便模块重新启动。

由于在步骤 2 中所做的更改，模块将重新启动，但是会忽略保存的配置。

<#root>

```
rommon 2 >
```

reset

Resetting `.......`

`rommon 3 >`

```
**********************************************************
*                                                        *
* Welcome to ROM Monitor for WS-X4014 System.            *
* Copyright (c) 1999-2000, 2001 by Cisco Systems, Inc.   *
* All rights reserved.                                   *
*                                                        *
**********************************************************
```

!--- Output suppressed.

Press RETURN to get started!

!--- Press Return.

00:00:21: %SYS-5-RESTART: System restarted --
Cisco Internetwork Operating System Software
IOS (tm) Catalyst 4000 L3 Switch Software (cat4000-IS-M),
  Version 12.1(8a)EW, RELEASE SOFTWARE (fc1)
TAC Support: http://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Thu 24-Jan-02 17:34 by ccai
00:00:21: %SNMP-5-COLDSTART: SNMP agent on host Switch
  is undergoing a cold start
`Switch>`

-

请确保配置寄存器值为 0x2142。

该值可使模块从闪存重新启动，而无须载入保存的配置。在 Switch 提示符处发出 enable 命令，进入启用模式。然后，发出 show version 命令，检查配置寄存器值。

    <#root>

```
Switch>
```

enable

```
Switch#
```

show version

```
Cisco Internetwork Operating System Software
Cisco IOS (TM) Catalyst 4000 L3 Switch Software (cat4000-IS-M),
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TAC Support: https://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Thu 24-Jan-02 17:34 by ccai
Image text-base: 0x00000000, data-base: 0x00AA2B8C

ROM: 12.1(10r)EY(1.21)
Switch uptime is 5 minutes
System returned to ROM by reload
Running default software

cisco WS-C4006 (MPC8245) processor (revision 7) with 262144K bytes of memory.
Processor board ID FOX04183666
Last reset from Reload
32 Gigabit Ethernet/IEEE 802.3 interface(s)
467K bytes of non-volatile configuration memory.
```

Configuration register is 0x2142

```
Switch#
```

•

发出 configure memory 命令或 **copy startup-config running-config** 命令将NVRAM复制到内存中。

不要发出显示模块上的默认配置的命令 configure terminal 。

<#root>

Switch#

configure memory

Uncompressed configuration from 1307 bytes to 3014 bytes
Switch#
00:13:52: %SYS-5-CONFIG_I: Configured from memory by console
c-4006-SUPIII#

-

发出 show ip interface brief 命令，确保之前使用的接口显示**up/up状**态。

如果在口令恢复之前使用的任何接口显示**down**，则在该接口上发出**no shutdown**命令以启用该接口。

-

发出 write terminal 命令或 show running-config 命令，显示保存在模块上的配置。

<#root>

c-4006-SUPIII#

 show running-config

Building configuration...

Current configuration : 3014 bytes
!
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service compress-config
!
hostname c-4006-SUPIII

```
!
boot system flash bootflash:
!
vtp mode transparent

!--- Output suppressed.

line con 0
 stopbits 1
line vty 0 4
 login
!
end

c-4006-SUPIII#
```

现在可以开始更改模块上的口令。

-

请发出以下这些命令以更改口令：

<#root>

```
c-4006-SUPIII#
```

configure terminal

```
Enter configuration commands, one per line.  End with CNTL/Z.
c-4006-SUPIII(config)#
```

no enable secret

!--- This step is necessary if the switch had an enable secret password.

```
c-4006-SUPIII(config)#
```

enable secret < password >
[Choose a strong password with at least one capital letter,

one number, and one special character.]

!--- This command sets the new password.

-

确保将配置寄存器值改回 0x2102。

在配置提示符下完成以下步骤以更改和验证配置寄存器值。

<#root>

c-4006-SUPIII(config)#

config-register 0x2102

c-4006-SUPIII(config)#

^Z

```
c-4006-SUPIII#
00:19:01: %SYS-5-CONFIG_I: Configured from console by console
c-4006-SUPIII#
```

write memory

!--- This step saves the configuration.

```
Building configuration...
Compressed configuration from 3061 bytes to 1365 bytes[OK]
c-4006-SUPIII#
```

show version

!--- This step verifies the value change.

Cisco Internetwork Operating System Software
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TAC Support: https://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Thu 24-Jan-02 17:34 by ccai
Image text-base: 0x00000000, database: 0x00AA2B8C

ROM: 12.1(10r)EY(1.21)
c-4006-SUPIII uptime is 20 minutes
System returned to ROM by reload
Running default software

cisco WS-C4006 (MPC8245) processor (revision 7) with 262144K bytes of memory.
Processor board ID FOX04183666
Last reset from Reload
32 Gigabit Ethernet/IEEE 802.3 interface(s)
467K bytes of nonvolatile configuration memory.

Configuration register is 0x2142 (

will be 0x2102 at next reload

)

c-4006-SUPIII#

此时口令已更改。

示例配置和输出

此示例输出是在Catalyst 4000 Supervisor引擎III上执行密码恢复过程的结果。

<#root>

c-4006-SUPIII>

```
enable



Password:
Password:
Password:
% Bad secrets
```

```
**********************************************************
*                                                        *
* Welcome to ROM Monitor for WS-X4014 System.            *
* Copyright (c) 1999-2000, 2001 by Cisco Systems, Inc.   *
* All rights reserved.                                   *
*                                                        *
**********************************************************

 ROM Monitor Program Version 12.1(10r)EY(1.21)

 Board type 1, Board revision 7
 Swamp FPGA revision 16, Dagobah FPGA revision 43

 Timer interrupt test passed.

 MAC Address  : 00-02-b9-83-af-fe
 IP Address   : 172.16.84.122
 Netmask      : 255.255.255.0
 Gateway      : 172.16.84.1
 TftpServer   : Not set.
 Main Memory  : 256 Mbytes


 ***** The system will autoboot in 5 seconds *****

Type control-C to prevent autobooting.
```

```
Autoboot cancelled......... please wait!!!
```

```
Autoboot cancelled......... please wait!!!
rommon 1 > [interrupt]

rommon 1 > [interrupt]

rommon 1 >




confreg




Configuration Summary :
=> load ROM after netboot fails
=> console baud: 9600
=> autoboot from: commands specified in 'BOOT' environment variable

do you wish to change the configuration? y/n [n]:




y




enable "diagnostic mode"? y/n [n]:




n




enable "use net in IP bcast address"? y/n [n]:




n




disable "load ROM after netboot fails"? y/n [n]:




n
```

```
enable "use all zero broadcast"? y/n [n]:


n


enable "break/abort has effect"? y/n [n]:


n


enable "ignore system config info"? y/n [n]:


y


change console baud rate? y/n [n]:


n


change the boot characteristics? y/n [n]:


n
```

```
Configuration Summary :
=> load ROM after netboot fails
=> ignore system config info
=> console baud: 9600
=> autoboot from: commands specified in 'BOOT' environment variable

do you wish to save this configuration? y/n [n]:



y



You must reset or power cycle for new configuration to take effect

rommon 2 >



reset




Resetting .......

rommon 3 >

********************************************************
*                            *
* Welcome to ROM Monitor for WS-X4014 System.        *
* Copyright (c) 1999-2000, 2001 by Cisco Systems, Inc.  *
* All rights reserved.                     *
*                            *
********************************************************

ROM Monitor Program Version 12.1(10r)EY(1.21)
Board type 1, Board revision 7
Swamp FPGA revision 16,
Dagobah FPGA revision 43

Timer interrupt test passed.

MAC Address : 00-02-b9-83-af-fe
IP Address : 172.16.84.122
Netmask : 255.255.255.0
Gateway : 172.16.84.1
TftpServer : Not set.
Main Memory : 256 Mbytes

***** The system will autoboot in 5 seconds *****
```

```
Type control-C to prevent autobooting.
. . . . .

******** The system will autoboot now ********


config-register = 0x2142
Autobooting using BOOT variable specified file.....

Current BOOT file is --- bootflash:

Rommon reg: 0x2B004180
Decompressing the image : #########################
#######################################################
####################################### [OK]

k2diags version 1.6

prod: WS-X4014 part: 73-6854-07 serial: JAB0546060Z

Power-on-self-test for Module 1: WS-X4014
Status: (. = Pass, F = Fail)

Traffic using serdes loopback (L2; one port at a time)...
switch port 0: . switch port 1: . switch port 2: .
switch port 3: . switch port 4: . switch port 5: .
switch port 6: . switch port 7: . switch port 8: .

!--- Output suppressed.

Module 1 Passed


Exiting to ios...

Rommon reg: 0x2B000180
Decompressing the image : #########################

!--- Output suppressed.

########################################################## [OK]

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TAC Support: http://www.cisco.com/tac
```

cisco WS-C4006 (MPC8245) processor (revision 7) with 262144K bytes of memory.
Processor board ID FOX04183666
Last reset from Reload
32 Gigabit Ethernet/IEEE 802.3 interface(s)
467K bytes of nonvolatile configuration memory.

Press RETURN to get started!

00:00:21: %SYS-5-RESTART: System restarted --
Cisco Internetwork Operating System Software
Cisco IOS (TM) Catalyst 4000 L3 Switch Software (cat4000-IS-M),
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TAC Support: https://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Thu 24-Jan-02 17:34 by ccai
00:00:21: %SNMP-5-COLDSTART: SNMP agent on host Switch is undergoing a cold start

Switch>

enable

Switch#

show version

Cisco Internetwork Operating System Software
Cisco IOS (TM) Catalyst 4000 L3 Switch Software (cat4000-IS-M),
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Compiled Thu 24-Jan-02 17:34 by ccai
Image text-base: 0x00000000, database: 0x00AA2B8C

ROM: 12.1(10r)EY(1.21)
Switch uptime is 5 minutes
System returned to ROM by reload
Running default software

cisco WS-C4006 (MPC8245) processor (revision 7) with 262144K bytes of memory.
Processor board ID FOX04183666
Last reset from Reload

```
32 Gigabit Ethernet/IEEE 802.3 interface(s)
467K bytes of nonvolatile configuration memory.
```

Configuration register is 0x2142

Switch#

Switch#

configure memory

```
Uncompressed configuration from 1307 bytes to 3014 bytes
c-4006-SUPIII#
00:13:52: %SYS-5-CONFIG_I: Configured from memory by console
c-4006-SUPIII#
```

show running-config

Building configuration...

```
Current configuration : 3014 bytes
!
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service compress-config
!
```

hostname c-4006-SUPIII

```
!
boot system flash bootflash:
!
vtp mode transparent
!
vlan 20
 private-vlan primary
!
vlan 100
!
vlan 202
 private-vlan association 440
!
vlan 440
 private-vlan isolated
!
vlan 500
ip subnet-zero
no ip domain-lookup
!
ip multicast-routing
!
!
interface GigabitEthernet1/1
 no switchport
 ip address 10.1.1.1 255.255.255.0
 ip pim dense-mode
!
interface GigabitEthernet1/2
 no switchport
 ip address 10.2.2.2 255.255.255.0
!

!--- Output suppressed.

!
interface Vlan1
 ip address 172.16.84.140 255.255.255.0
 ip pim dense-mode
!
interface Vlan2
 no ip address
 shutdown
!
interface Vlan20
 no ip address
 shutdown
!

!--- Output suppressed.

!
line con 0
 stopbits 1
line vty 0 4
 login
!
end
```

```
c-4006-SUPIII#
```

configure terminal

```
Enter configuration commands, one per line. End with CNTL/Z.
c-4006-SUPIII(config)#
```

no enable secret

!--- This step is necessary if the switch had an enable secret password.

```
c-4006-SUPIII(config)#
```

enable secret < password >
[Choose a strong password with at least one capital letter,
one number, and one special character.]

```
c-4006-SUPIII(config)#
```

config-register 0x2102

```
c-4006-SUPIII(config)#
```

^Z

```
c-4006-SUPIII#
```

write memory

```
Building configuration...
Compressed configuration from 3061 bytes to 1365 bytes[OK]
c-4006-SUPIII#
```

show version

```
Cisco Internetwork Operating System Software
Cisco IOS (TM) Catalyst 4000 L3 Switch Software (cat4000-IS-M),
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System returned to ROM by reload
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Processor board ID FOX04183666
Last reset from Reload
32 Gigabit Ethernet/IEEE 802.3 interface(s)
467K bytes of nonvolatile configuration memory.
```

Configuration register is 0x2142 (will **be 0x2102 at next reload)**

```
c-4006-SUPIII#
```

相关信息

- **口令恢复**过程中的标准中断键顺序组合

- **LAN 交换机产品支持**

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