

# VCS/Expressway硬體故障排除指南

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## 簡介

本文說明如何對影片通訊伺服器(VCS)上的乙太網埠、風扇和磁碟故障進行故障排除。

## 硬體故障

### 乙太網埠故障

VCS硬體上有四個乙太網埠。以root使用者身份登入並輸入**ifconfig -a**命令。應顯示所有四個埠。

```
~ # ifconfig -a
eth0      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:AE
          inet addr:10.104.214.202  Bcast:10.104.214.255  Mask:255.255.255.192
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:7726332 errors:0 dropped:0 overruns:0 frame:0
          TX packets:7436734 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1329156143 (1267.5 Mb)  TX bytes:3590189626 (3423.8 Mb)
          Interrupt:18 Memory:fdae0000-fdb00000

eth1      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:AF
          inet addr:192.168.0.100  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:19 Memory:fd8e0000-fd900000

eth2      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:B0
          BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:16 Memory:fd6e0000-fd700000
```

```

eth3      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:B1
          BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:17 Memory:fd4e0000-fd500000

ip6tnl0   Link encap:UNSPEC  HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
          NOARP  MTU:1452  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:30151925 errors:0 dropped:0 overruns:0 frame:0
          TX packets:30151925 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:30219125820 (28819.2 Mb)  TX bytes:30219125820 (28819.2 Mb)

sit0      Link encap:UNSPEC  HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
          NOARP  MTU:1480  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)

```

~ #

如果未顯示所有四個埠，則VCS出現問題，需要將其更換為網路介面控制器(NIC)出現故障。

VCS虛擬機器(VM)有三個而不是四個NIC埠。因此，當您排除VCS VM上的NIC故障時，**ifconfig -a**命令應顯示三個乙太網埠。以root使用者身份登入並輸入**ifconfig -a**命令。

~ # **ifconfig -a**

```

eth0      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:AE
          inet addr:10.104.214.202  Bcast:10.104.214.255  Mask:255.255.255.192
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:7726332 errors:0 dropped:0 overruns:0 frame:0
          TX packets:7436734 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1329156143 (1267.5 Mb)  TX bytes:3590189626 (3423.8 Mb)
          Interrupt:18 Memory:fdae0000-fdb00000

eth1      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:AF
          inet addr:192.168.0.100  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:19 Memory:fd8e0000-fd900000

eth2      Link encap:Ethernet  HWaddr 00:10:F3:18:2F:B0
          BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000

```

```
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
Interrupt:16 Memory:fd6e0000-fd700000
```

```
ip6tnl0 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
NOARP MTU:1452 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
```

```
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:30151925 errors:0 dropped:0 overruns:0 frame:0
TX packets:30151925 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:30219125820 (28819.2 Mb) TX bytes:30219125820 (28819.2 Mb)
```

```
sit0 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
NOARP MTU:1480 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
```

```
~ #
```

## 風扇故障

如果兩個或多個風扇出現故障，VCS版本7會報告風扇故障。但是，VCS仍可能運行正常。如果VCS上的溫度過高，則可以處理RMA。

VCS有5個風扇，但每次只報告3個風扇的狀態。一個風扇故障實際上可能是三個風扇故障。

以root使用者身份登入並輸入**sensors**命令以檢查VCS上的溫度。

```
~ # sensors
acpitz-virtual-0
Adapter: Virtual device

it8712.7-isa-0290
Adapter: ISA adapter
VCore:      +1.17 V (min = +0.83 V, max = +1.39 V)
DDR 1.8V:   +1.78 V (min = +1.62 V, max = +1.98 V)
VCC 3.3V:   +3.31 V (min = +3.14 V, max = +3.47 V)
VCC 5V:     +5.00 V (min = +4.76 V, max = +5.24 V)
+12V:      +12.22 V (min = +9.60 V, max = +14.40 V)
VCC 1.5V:   +1.49 V (min = +1.42 V, max = +1.57 V)
VBat:      +3.28 V (min = +2.99 V)
Fan 1:      0 RPM (min = 3516 RPM, div = 8) ALARM
Fan 2:     10546 RPM (min = 3516 RPM, div = 8)
Fan 3:     10546 RPM (min = 3516 RPM, div = 8)
Sys Temp1:  +29.0 C (high = +58.0 C)          sensor = thermistor
Sys Temp2:  +31.0 C (high = +58.0 C)          sensor = thermistor
CPU Temp:   +28.0 C (high = +58.0 C)          sensor = thermal diode

coretemp-isa-0000
Adapter: ISA adapter
```

Core 0: +43.0 C (high = +74.0 C, crit = +100.0 C)

coretemp-isa-0001

Adapter: ISA adapter

Core 1: +42.0 C (high = +74.0 C, crit = +100.0 C)

~ #

只要溫度看起來良好，您就不需要對VCS進行RMA。

## 磁碟故障

VCS上有兩種型別的磁碟：

- SDA — 這是VCS上的主磁碟。此磁碟故障會導致VCS完全無法啟動。如果此操作失敗，VCS根本不會載入映像。
- SDB — 這是輔助磁碟。此磁碟故障可能導致VCS出現問題。

以root使用者身份登入並輸入**smartctl**命令，以確定測試是否通過（SDB正常）。PASSED以外的結果不正確。

```
?~ # smartctl --all /dev/sdb
?smartctl 7.40 2013-12-03 r3189 [x86_64-pc-linux-gnu] (local build)
?Copyright (C) 2002-10 by Bruce Allen, http://smartmontools.sourceforge.net
?
?=== START OF INFORMATION SECTION ===
?Model Family:      Seagate Barracuda 7200.12 family
?Device Model:      ST3250318AS
?Serial Number:     5A347D45
?Firmware Version:  CC38
?User Capacity:     250,059,350,016 bytes
?Device is:         In smartctl database [for details use: -P show]
?ATA Version is:    8
?ATA Standard is:   ATA-8-ACS revision 4
?Local Time is:     Fri Dec 04 01:38:51 2013 GMT
?SMART support is: Available - device has SMART capability.
?SMART support is: Enabled
?
?=== START OF READ SMART DATA SECTION ===
?SMART overall-health self-assessment test result: PASSED
```

可以輸入**ls -l /dev/sd\***命令以同時顯示SDB。

```
?ls -l /dev/sd*
?brw-rw---- 1 root root 8, 0 2013-12-04 01:25 /dev/sda
?brw-rw---- 1 root root 8, 1 2013-12-04 01:25 /dev/sda1
?brw-rw---- 1 root root 8, 2 2013-12-04 01:25 /dev/sda2
?brw-rw---- 1 root root 8, 3 2013-12-04 01:25 /dev/sda3
?brw-rw---- 1 root root 8, 5 2013-12-04 01:25 /dev/sda5
?brw-rw---- 1 root root 8, 6 2013-12-04 01:25 /dev/sda6
?brw-rw---- 1 root root 8, 7 2013-12-04 01:25 /dev/sda7
?brw-rw---- 1 root root 8, 8 2013-12-04 01:25 /dev/sda8
?brw-rw---- 1 root root 8, 16 2013-12-04 01:25 /dev/sdb
?brw-rw---- 1 root root 8, 17 2013-12-04 01:25 /dev/sdb1
?brw-rw---- 1 root root 8, 18 2013-12-04 01:25 /dev/sdb2
```

需要裝載SDB。輸入**df | grep sdb**命令以顯示SDB是否已裝載。

```
?~ # df | grep sdb
```

```
?/dev/sdb2      320471385    3781378 324252763    1% /mnt/harddisk
```

```
?~ #
```