

VCS/Expressway硬件故障排除指南

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简介

本文档介绍如何对视频通信服务器(VCS)上的以太网端口、风扇和磁盘故障进行故障排除。

硬件故障

以太网端口故障

VCS硬件上有四个以太网端口。以root用户身份登录并输入**ifconfig -a**命令。应显示所有四个端口。

```
~ # 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)

```

~ #

如果未显示全部四个端口，则VCS出现问题，需要更换为网络接口控制器(NIC)发生故障。

VCS虚拟机(VM)有三个NIC端口，而不是四个。因此，当您为VCS VM上的NIC故障进行故障排除时，**ifconfig -a**命令应显示三个以太网端口。以root用户身份登录并输入**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)
```

```
~ #
```

风扇故障

如果两个或多个风扇发生故障，VCS版本7会报告风扇故障。但是，VCS仍然可以正常运行。如果VCS上的温度太高，可以处理RMA。

VCS有五个风扇，但是每次只报告三个风扇的状态。一个风扇故障实际上可能也是三个故障风扇。

以root用户身份登录并输入**sensors**命令以检查VCS上的温度。

```
~ # 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)
```

~ #

只要温度看起来不错，您就无需RMA VCS。

磁盘故障

VCS上有两种类型的磁盘：

- SDA — 这是VCS上的主磁盘。此磁盘故障导致VCS完全无法启动。如果此操作失败，VCS将根本不加载映像。
- SDB — 这是辅助磁盘。此磁盘故障可能会导致VCS上的问题。

以root身份登录并输入**smartctl**命令，以确定测试是否通过（SDB正常）。PASSED以外的结果不正确。

```
?~ # 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
```

您可以输入**ls -l /dev/sd***命令以同时显示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
```

需要安装SDB。输入**df | grep sdb**命令以显示SDB是否已挂载。

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

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

```
?~ #
```