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Cisco TelePresence RMA Procedures for Cisco VCS and Cisco TelePresence Conductor Appliances

Reference Guide

Cisco VCS Cisco TelePresence Conductor

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Contents

Introduction	3
Troubleshooting suspected hardware issues	4
System will not power up, or boot up, or is constantly rebooting, or booting the wrong image	4
System is reporting a fan failure	
Suspected hard disk issues	4
High temperature warning/alarm	6
Front panel buttons unresponsive	7
Network adapter issues	
Serial port displays an unexpected login prompt (VCS only)	
TANDBERG application / tsh will not start (VCS only)	8
Logs and evidence	9
System snapshot (from web)	9
System snapshot (from root shell)	9
Crash logs 1	10
Sensor logs1	
DMI code	
Board test	
smartctl	
ifconfig output	
ethtool statistics dump	
Alarms and warnings	
Console access	6
Restoring default configuration (factory reset)1	7
Prerequisite files1	17
Performing a reset to default configuration1	17

Introduction

This document describes the troubleshooting and information gathering procedures that should be followed if you are considering returning a Cisco TelePresence Video Communication Server (VCS) or a Cisco TelePresence Conductor (TelePresence Conductor) through the Return Material Authorization (RMA) process.

It is important to provide the required information to the Cisco support engineers when you request an RMA. You do not need to wait for a support engineer to contact you; you can update your support ticket with the appropriate information at any time.

Troubleshooting suspected hardware issues

System will not power up, or boot up, or is constantly rebooting, or booting the wrong image

The VCS/TelePresence Conductor system will not power up or boot up or keeps rebooting:

- Are any LEDs/LCD display on?
 - If yes, the device is powering on, but it might not be booting:
 - Are any devices connected to the USB ports of the system (especially USB KVM)?
 - If yes, remove them and try powering down and up the system again:
 - If the system still fails to boot, connect to the serial console, and collect as much of the output for the boot up as possible, and attach that to the support ticket. (See <u>Console access [p.16]</u> for information on how to connect to the system with a serial connection.)
 - Are any devices connected to the serial ports of the system?
 - If yes, remove them and try powering down and up the system again:
 - If the system still fails to boot, connect to the serial console, and collect as much of the output for the boot up as possible, and attach that to the support ticket. (See <u>Console access [p.16]</u> for information on how to connect to the system with a serial connection.)
 - If no (there are no LEDs/LCD on) try changing the power outlet the system is plugged into, and the power lead that is being used. Make sure the power and soft-switch on the back of the unit are both in the correct position and have been pressed as appropriate. Check the power cable is working correctly by plugging it into something else.
- If the box keeps rebooting, but is up for a little while, try and collect a sensors log, see <u>Logs and evidence</u>
 [p.9] for further information.
- If the system still fails to boot, then raise a support ticket with a list of the steps carried out to check the system.

System is reporting a fan failure

The system reports that a fan has failed:

Collect the proof of failure from the system as shown in <u>Logs and evidence [p.9]</u> Alarms and Warnings

Raise a support ticket with the collected information attached.

Suspected hard disk issues

The administrator thinks that there is a hard disk failure.

Is the hard disk described as being "unmounted"?

- If yes, please collect as much of the following as possible, as documented in Logs and evidence [p.9]:
 - Physical evidence showing the message seen on the LCD
 - smartctl
 - DMI code
 - Alarms and warnings

Raise a support ticket with the collected information attached.

 If no (the disk is not described as "unmounted") investigate why the administrator thinks there is a problem with the hard disk. The following can provide good evidence of issues with the disk, see Logs and evidence [p.9] for more details:

Physical evidence

- smartctl
- DMI code
- Alarms and warnings
- System snapshot

There may be disk related error messages in the standard Linux logs, such as dmesg or /var/log/messages.

Raise a support ticket with the collected information attached.

A few examples of the type of error log which might be seen are given below:

```
ata4.00: exception Emask 0x0 SAct 0x0 SErr 0x0 action 0x6 frozen
ata4.00: cmd c8/00:00:81:53:2a/00:00:00:00:00/e1 tag 0 dma 131072 in
        res 40/00:00:00:00:00/00:00:00:00/00 Emask 0x4 (timeout)
ata4.00: status: { DRDY }
ata4: hard resetting link
ata4: SATA link up 3.0 Gbps (SStatus 123 SControl 300)
ata4.00: configured for UDMA/133
ata4.00: device reported invalid CHS sector 0
ata4: EH complete
e2fsck 1.41.9 (22-Aug-2009)
ata4.00: exception Emask 0x0 SAct 0x0 SErr 0x0 action 0x6 frozen
ata4.00: cmd c8/00:c0:a1:53:2a/00:00:00:00:00/e1 tag 0 dma 98304 in
        res 40/00:00:00:00:00/00:00:00:00/00 Emask 0x4 (timeout)
ata4.00: status: { DRDY }
ata4: hard resetting link
ata4: SATA link up 3.0 Gbps (SStatus 123 SControl 300)
ata4.00: configured for UDMA/133
ata4.00: device reported invalid CHS sector 0
ata4: EH complete
ata4.00: exception Emask 0x0 SAct 0x0 SErr 0x0 action 0x6 frozen
ata4.00: cmd c8/00:d0:91:54:2a/00:00:00:00:00/e1 tag 0 dma 106496 in
         res 40/00:00:00:00:00/00:00:00:00/00 Emask 0x4 (timeout)
ata4.00: status: { DRDY }
ata4: hard resetting link
ata4: SATA link up 3.0 Gbps (SStatus 123 SControl 300)
ata4.00: configured for UDMA/133
ata4.00: device reported invalid CHS sector 0
ata4: EH complete
ata4: limiting SATA link speed to 1.5 Gbps
ata4.00: exception Emask 0x0 SAct 0x0 SErr 0x0 action 0x6 frozen
ata4.00: cmd c8/00:d0:91:54:2a/00:00:00:00:00/e1 tag 0 dma 106496 in
        res 40/00:00:00:00:00/00:00:00:00/00 Emask 0x4 (timeout)
ata4.00: status: { DRDY }
ata4: hard resetting link
ata4: SATA link up 1.5 Gbps (SStatus 113 SControl 310)
ata4.00: configured for UDMA/133
ata4.00: device reported invalid CHS sector 0
ata4: EH complete
ata4.00: exception Emask 0x0 SAct 0x0 SErr 0x0 action 0x6 frozen
ata4.00: cmd c8/00:d0:91:54:2a/00:00:00:00:00/e1 tag 0 dma 106496 in
        res 40/00:00:00:00:00/00:00:00:00/00 Emask 0x4 (timeout)
ata4.00: status: { DRDY }
ata4: hard resetting link
ata4: SATA link up 1.5 Gbps (SStatus 113 SControl 310)
```

```
ata4.00: configured for UDMA/133
ata4.00: device reported invalid CHS sector 0
ata4: EH complete
ata4: link is slow to respond, please be patient (ready=0)
ata4: SRST failed (errno=-16)
ata4: link is slow to respond, please be patient (ready=0)
ata4: SRST failed (errno=-16)
ata4: link is slow to respond, please be patient (ready=0)
ata4: SRST failed (errno=-16)
ata4: limiting SATA link speed to 1.5 Gbps
ata4: SRST failed (errno=-16)
ata4: reset failed, giving up
kernel: irq 19: nobody cared (try booting with the "irqpoll" option)
kernel: Pid: 0, comm: swapper Not tainted 2.6.31.12 #1
kernel: Call Trace:
kernel: <IRQ> [<fffffff810743d6>] report_bad_irq+0x26/0xa0
kernel: [<fffffff810745dc>] note interrupt+0x18c/0x1d0
kernel: [<fffffff81074db5>] handle fasteoi irq+0xb5/0xe0
kernel: [<fffffff8100e35d>] handle irq+0x1d/0x30
kernel: [<fffffff8100d887>] do IRQ+0x67/0xe0
kernel: [<fffffff8100bcd3>] ret from intr+0x0/0xa
kernel: <EOI> [<fffffff81012c03>] ? mwait_idle+0x63/0x80
kernel: [<fffffff8100a500>] ? enter idle+0x20/0x30
kernel: [<fffffff8100a574>] ? cpu idle+0x64/0xb0
kernel: [<fffffff81399d05>] ? rest init+0x65/0x70
kernel: [<fffffff816c250a>] ? start kernel+0x33c/0x348
kernel: [<fffffff816c1b75>] ? x86 64 start reservations+0x125/0x129
kernel: [<fffffff816c1c5d>] ? x86 64 start kernel+0xe4/0xeb
kernel: handlers:
kernel: [<fffffff81254260>] (ata_sff_interrupt+0x0/0x110)
kernel: [<fffffff81254260>] (ata sff interrupt+0x0/0x110)
kernel: [<fffffff81280ba0>] (usb hcd irq+0x0/0x70)
kernel: Disabling IRQ #19
```

High temperature warning/alarm

The VCS/TelePresence Conductor reports that it has a high temperature alarm:

 The unit has side air intakes and rear air exhaust. A check should be made to ensure there is sufficient ventilation, particularly at the sides. Even if the sides look OK another device (e.g. a CODIAN MCU) may be exhausting directly into the unit's air intake.



- Codian MCU airflow is from right to left, so be especially careful if racking them to the right of a VCS/TelePresence Conductor.
- Occasionally the thermistor temperature sensor may report a spurious reading. Acknowledge any alarm and monitor the system for further occurrences.
- Collect the proof of failure from the system as shown in Logs and evidence [p.9]
 - Alarms and warnings
 - Physical evidence

Raise a support ticket with the collected information attached.

Front panel buttons unresponsive

Certain versions of the front panel, especially early Cisco branded panels have problems with the contacts for the buttons on the front panel. This is resolved in newer versions of the front panel, and does not affect day-to-day operation of the system.

- Collect evidence of there being a problem (see Logs and evidence [p.9]):
 - DMI code

If the front panel is unresponsive, a serial connection can be used to the appliance for initial configuration. See Console access [p.16] for information on how to connect to the appliance with a serial connection.

Network adapter issues

The administrator reports that there are problems with the network adapter and/or the LAN link is down.

Verify that different LAN cables and ports on the switch/router that the appliance is connected to have been tried.

Collect evidence of there being a problem (see Logs and evidence [p.9]):

- ifconfig output
- ethtool statistics dump
- Board test
- Physical evidence
- Alarms and warnings
- System snapshot

Raise a support ticket with the collected information attached.

Serial port displays an unexpected login prompt (VCS only)

When a Cisco VCS boots up you typically see something like:

```
tandberg login: root
Password:
```

However during startup, a message from the Fusion MPT SAS driver may collide with the login prompt. In this case the following output will appear:

```
tandberg login: Fusion MPT misc device (ioctl) driver 3.04.14
mptctl: Registered with Fusion MPT base driver
mptctl: /dev/mptctl @ (major,minor=10,220)
```

This issue is due to a software issue which Cisco are aware of, and should not result in an RMA. The issue is fixed in X6.0 and later versions of code.

TANDBERG application / tsh will not start (VCS only)

When trying to log in as admin to a console session (SSH, telnet, serial or KVM), a message "unable to connect to tsh" or "/tmp/hwfail exists: TANDBERG application startup inhibited" is seen:

- Does the file /tmp/hwfail exist?
 - If yes, collect the following from Logs and evidence [p.9]:
 - System snapshot from root shell
 - DMI Code
 - Board Test
 - Physical Evidence
- When typing "tsh" or logging in as admin, is a message saying "cannot connect to tsh" seen?
 - Check that the system has a release key: "cat /tandberg/etc/rk" and that it is valid for the system's serial number and the software level that is installed.
 - If there are still problems with the application not starting, collect the information as follows:
 - System snapshot from root shell
 - DMI Code
 - Board Test
 - Physical Evidence

Raise a support ticket with the collected information attached.

Note that the TelePresence Conductor has no tsh equivalent.

Logs and evidence

System snapshot (from web)

The system snapshot process creates a file archive of various system files which can be downloaded to the administrator's PC.

To initiate a system snapshot in X6.1 or XC1.1 and earlier:

- 1. Go to Maintenance > System snapshot.
- 2. Click Create full snapshot.
- 3. Wait for the archive to be created (this can take some time; there are a lot of files).
- 4. A file download dialogue should appear so that the file can be downloaded to the local pc (make sure the PC has enough disk space).

To initiate a system snapshot in X7.0 or XC1.2 and later:

- 1. Go to Maintenance > Diagnostics > System snapshot.
- 2. Click Create full snapshot.
- 3. Wait for the archive to be created (this can take some time; there are a lot of files).
- 4. A file download dialogue should appear so that the file can be downloaded to the local pc (make sure the PC has enough disk space).

Taking a snapshot reserves system resources. On a very busy system it may be advisable to initiate snapshot at a "low traffic" period (although, do not leave it too long after the event you want to analyze).

The system stores only 1 snapshot archive (.tar.gz) on disk at any one time (the most recent) – in /mnt/harddisk/snapshot.

System snapshot (from root shell)

The system snapshot process creates a file archive of various system files which can be downloaded to the administrator's PC.

To initiate a system snapshot:

- 1. Log in to the system as root.
- 2. Type snapshot.sh
- 3. Wait for the archive to be created (this can take some time; there are a lot of files wait for the file to change from a .tar file to a .tar.gz file).
- 4. When the snapshot has been generated it will be available to scp from here: /mnt/harddisk/snapshot/ (it is a tar.gz archive).

Taking a snapshot reserves system resources. On a very busy system it may be advisable to initiate snapshot at a "low traffic" period (although, do not leave it too long after the event you want to analyze).

The system stores only 1 snapshot archive (**.tar.gz**) on disk at any one time (the most recent) – in /mnt/harddisk/snapshot.

Crash logs

Every time there is an application fail an incident report is written to disk, into the /tandberg/crash/directory.

Incident reports are included in the snapshot archive.

The Cisco support engineers host an externally routable server, onto which the VCS/TelePresence Conductor can be configured to post incident reports. If administrators are willing to configure the system to post incident reports it will speed up notification of application failures.

The automatic uploading of crash reports to the ACR (automated crash report) server is configured on the Maintenance > Incident reporting > Configuration page (in X7.0 / XC1.1 and later this is Maintenance > Diagnostics > Incident reporting > Configuration).

- The incident reports sending mode needs to be set to On (it is Off by default).
- The incident reports URL needs to be set to https://cc-reports.cisco.com/submitapplicationerror/ (The legacy URL https://vcser.tandberg.com/submitapplicationerror/ will also reach the incident reporting server).
- Following an 'incident' (crash) an incident report is posted to this URL using HTTPS (system source port 4000-4999).

It might not be the whole application crashing; ACRs can also be generated by subcomponents in the system.

If crash reporting cannot be turned on for any reason, or the system does not have routable access to the server, any ACRs generated can be separately copied off the system, and then attached to a support ticket. The Cisco support engineers can then manually upload the ACRs to the reporting server for investigation. Be aware that in most cases a system snapshot is also required to understand the origin of the issue.

Incident reports can be viewed and copied off the system from the **Maintenance > Incident reporting > View** page (in X7.0 / XC1.1 and later this is **Maintenance > Diagnostics > Incident reporting > View**).

Sensor logs

The appliance hardware includes a number of sensors, the values of which can be read by the Linux OS. These can be retrieved by typing sensors at the command prompt. The output can then be attached to the Support ticket.

```
~ # sensors
acpitz-virtual-0
Adapter: Virtual device
it8712.7-isa-0290
Adapter: ISA adapter
VCore: +1.22 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 \text{ V} (min = +4.70 \text{ V}, max
+12V: +12.22 \text{ V} (min = +9.60 \text{ V}, max = +14.40 \text{ V})
+1.42 \text{ V} max = +1.57 \text{ V})
VCC 1.5V: +1.49 V (min = +1.42 V, max = +1.57 V)
VBat:
            +3.26 V (min = +2.99 V)
Fan 1:
           9375 RPM (min = 7670 RPM, div = 8)
           9375 RPM (min = 7670 RPM, div = 8)
Fan 2:
Fan 3: 10546 RPM (min = 7670 RPM, div = 8)
```

```
Sys Temp1: +18.0 C (high = +45.0 C) sensor = thermistor

Sys Temp2: +20.0 C (high = +45.0 C) sensor = thermistor

CPU Temp: +18.0 C (high = +50.0 C) sensor = thermal diode

coretemp-isa-0000

Adapter: ISA adapter

Core 0: +35.0 C (high = +78.0 C, crit = +100.0 C)

coretemp-isa-0001

Adapter: ISA adapter

Core 1: +32.0 C (high = +78.0 C, crit = +100.0 C)
```

DMI code

In the event of an issue, the DMI code can provide the Cisco support engineers with a useful reference code indicating any Engineering Change Requests that have been applied to the system in question.

Run the command cat /sys/class/dmi/id/chassis_version from a root console session and add the resulting output or include the **dmidecode.txt** file from the system snapshot to the support ticket.

Board test

Run the command **boarddetect** from a root console session and add the resulting output to the support ticket.

smartctl

The Linux OS includes a hard disk checker which looks at the hard disk SMART data.

This can be run by typing **smartctl** -all /dev/sdb2 at the command prompt from a root console session. The output can then be attached to the support ticket.

```
~ # smartctl --all /dev/sdb2
smartctl 5.39.1 2010-01-28 r3054 [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 7200.10 family
Device Model:
                 ST3250410AS
Serial Number: 9RY29MGL
Firmware Version: 3.AAC
User Capacity: 250,059,350,016 bytes
Device is:
                In smartctl database [for details use: -P show]
ATA Version is: 7
ATA Standard is: Exact ATA specification draft version not indicated
Local Time is: Mon Apr 4 16:10:02 2011 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
General SMART Values:
```

Offline data collection stat	tus: (Ox	82)			llection a ithout err	-			
			-				led.		
Self-test execution status:	(0)		Auto Offline Data Collection: Enabled. The previous self-test routine completed without error or no self-test has ever been run.						
Total time to complete Offl: data collection:		30)	seconds.						
Offline data collection									
capabilities:	(0x	.5b)	<pre>SMART execute Offline immediate. Auto Offline data collection on/off support. Suspend Offline collection upon new command. Offline surface scan supported. Self-test supported. No Conveyance Self-test supported. Selective Self-test supported.</pre>						
SMART capabilities:	(0x00	03)	power-sa	ving mo	a before e de. auto save				
Error logging capability:	(Ox	01)	Error lo	gging s					
Short self-test routine									
recommended polling time:	(1)	minutes.						
Extended self-test routine									
recommended polling time: SCT capabilities:) (0x00	,	minutes. SCT State	us supp	orted.				
SMART Attributes Data Struct	-ure revi	sion	number.	10					
Vendor Specific SMART Attril									
ID# ATTRIBUTE NAME	FLAG		LUE WORST		TYPE	UPDATED	WHEN FAILED) RA	
W VALUE	1 2010	•		1111		01 011120			
1 Raw_Read_Error_Rate 118725	0x000f	111	1 092	006	Pre-fail	Always	-	35	
3 Spin_Up_Time	0x0003	09'	7 097	000	Pre-fail	Always	-	0	
4 Start_Stop_Count 76	0x0032	099	9 099	020	Old_age	Always	-	10	
5 Reallocated_Sector_Ct	0x0033	100		036	Pre-fail	-	-	0	
7 Seek_Error_Rate	0x000f	084	4 060	030	Pre-fail	Always	-	31	
3078675									
9 Power_On_Hours 803	0x0032	073		000	Old_age	Always	-	23	
10 Spin_Retry_Count	0x0013	100		097	Pre-fail	Always	-	0	
12 Power_Cycle_Count	0x0032	099	9 099	020	Old_age	Always	-	10	
78		1.0.	100						
187 Reported_Uncorrect	0x0032	100		000	Old_age	Always	-	0	
189 High_Fly_Writes	0x003a	100		000	Old_age	Always	-	0	
190 Airflow_Temperature_Cel (Lifetime Min/Max 24/32)	0X0022	074	4 068	045	Old_age	Always	-	26	
(Difectime Min/Max 24/32) 194 Temperature_Celsius (0 12 0 0)	0x0022	02	6 040	000	Old_age	Always	-	26	
195 Hardware_ECC_Recovered 9212051	0x001a	082	1 051	000	Old_age	Always	_	14	
197 Current Pending Sector	0x0012	100	0 100	000	Old age	Always	_	0	
198 Offline_Uncorrectable	0x0010	100		000	Old age	Offline	-	0	
199 UDMA CRC Error Count	0x003e	200		000	Old age	Always	-	0	
200 Multi Zone Error Rate	0x0000	100		000	Old age	Offline	_	0	
202 Data_Address_Mark_Errs	0x0032	100		000	Old_age	Always	-	0	
					_				

```
SMART Error Log Version: 1
No Errors Logged
SMART Self-test log structure revision number 1
SMART Selective self-test log data structure revision number 1
SPAN MIN_LBA MAX_LBA CURRENT_TEST_STATUS
   1 0 0 Not_testing
               0 Not_testing
   2
         0
   3
         0
                  0 Not testing
                  0 Not testing
   4
          0
   5
          0
                  0 Not_testing
Selective self-test flags (0x0):
 After scanning selected spans, do NOT read-scan remainder of disk.
If Selective self-test is pending on power-up, resume after 0 minute delay.
```

ifconfig output

Some appliances may suffer a loss of a physical network port. This can be checked by using a root console session and running the command "ifconfig -a | grep eth". Four interfaces should be listed:

```
~ # ifconfig -a | grep eth
eth0 Link encap:Ethernet HWaddr 00:10:F3:1E:D4:90
eth1 Link encap:Ethernet HWaddr 00:10:F3:1E:D4:91
eth2 Link encap:Ethernet HWaddr 00:10:F3:1E:D4:92
eth3 Link encap:Ethernet HWaddr 00:10:F3:1E:D4:93
```

If fewer than four are listed, this appliance may have a hardware issue, although reboots may sometimes also resolve this.

ethtool statistics dump

The Linux OS includes a tool for dumping Ethernet adapter statistics.

From a root console session, run "ethtool –S eth0" for the main network adapter used by the appliance or "ethtool –S eth1" if the issue is with a LAN 2 port.

```
~ # ethtool -S eth0
NIC statistics:
    rx packets: 49308441
     tx packets: 13055377
     rx bytes: 10446941316
     tx bytes: 8354830356
     rx broadcast: 36524340
     tx broadcast: 129146
     rx multicast: 5884
     tx_multicast: 79
     rx errors: 0
     tx errors: 0
     tx dropped: 0
     multicast: 5884
     collisions: 0
     rx length errors: 0
     rx_over_errors: 0
```

```
rx_crc_errors: 0
rx frame errors: 0
rx no buffer count: 0
rx missed errors: 0
tx_aborted_errors: 0
tx_carrier_errors: 0
tx fifo errors: 0
tx heartbeat errors: 0
tx_window_errors: 0
tx_abort_late_coll: 0
tx deferred ok: 0
tx single coll ok: 0
tx_multi_coll_ok: 0
tx_timeout_count: 0
tx restart queue: 0
rx_long_length_errors: 0
rx short length errors: 0
rx align errors: 0
tx tcp seg good: 115846
tx_tcp_seg_failed: 0
rx flow control xon: 465
rx flow control xoff: 465
tx flow control xon: 0
tx flow control xoff: 0
rx long byte count: 10446941316
rx csum offload good: 12205535
rx csum offload errors: 0
rx_header_split: 0
alloc_rx_buff_failed: 0
tx smbus: 0
rx smbus: 0
dropped_smbus: 0
rx_dma_failed: 0
tx dma failed: 0
```

Alarms and warnings

Alarms and warnings are shown on the system web pages as well as when logging in to the CLI or running the "xstatus" command. They may also be displayed on the LCD panel.

Screen captures from the web interface or the output from "xstatus" should be provided, for example:

	Alarm		State	Severity	Peer	Action
	Hardware failure - Fan 2 3013 RPM (min = 7670	RPM, div = 8) ALARM	Raised	Critical		
Har	dware					
Fan	s					
Fan	1	9375 RPM (min = 7	670 RPM,	div = 8)		
Fan	2	2909 RPM (min = 7670 RPM, div = 8) ALARM				
Fan	3	9375 RPM (min = 7	670 RPM,	div = 8)		

Physical evidence

Any camera phone videos of procedures being carried out or pictures of monitor output, the LEDs, LCD and network link light display, such as the following examples are very useful in helping find the root cause for an RMA:

Alarm LED lit:



LCD text:



Console access

To collect logs or other information when there are network problems or other issue preventing access to the VCS/TelePresence Conductor remotely, a serial console may be used. Connection should be made to the data port on the front of the appliance.

The settings below should be used for the console connection:

Setting	Value
Baud rate	115200 bits per second
Data bits	8
Parity	None
Stop bits	1
Flow control (hardware and software)	None

Restoring default configuration (factory reset)

Very rarely, it may become necessary to run the "factory-reset" script on your system. This reinstalls the software image and resets the configuration to the functional minimum.

Prerequisite files

The factory-reset procedure described below rebuilds the system based on the most recent successfully-installed software image. The files that are used for this reinstallation are stored in the /mnt/harddisk/factory-reset/ folder on the system. These files are:

- A text file containing just the 16-character Release Key, named rk
- A file containing the software image in tar.gz format, named tandberg-image.tar.gz

In some cases (most commonly a fresh VM installation that has not been upgraded), these files will not be present on the system. In such a case, to use this procedure, these files must first be put in place using SCP as root.

Performing a reset to default configuration

The following procedure must be performed from the serial console or via a direct connection to the appliance with a keyboard and monitor. This is because the network settings will be rewritten, so any SSH session used to initiate the reset would be dropped and the output of the procedure would not be seen. The process takes approximately 20 minutes.

- 1. Log in to the system as **root**.
- 2. Type factory-reset
- 3. Answer the questions as required:

The recommended responses will reset the system completely to a factory default state.

Prompt	Recommended response
Keep option keys [YES/NO]?	YES
Keep IP configuration [YES/NO]?	YES
Keep ssh keys [YES/NO]?	YES
Keep ssl certificates and keys [YES/NO]?	YES
Keep root and admin passwords [YES/NO]?	YES
Save log files [YES/NO]?	YES
Replace hard disk [YES/NO]?	NO

4. Finally, confirm that you want to proceed.

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