

# Troubleshooting with the rx2660 Management Processor

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## Overview

**NOTE:** If the rx2660 detects unread warning or error messages in its MP logs, the system LED on the front panel will flash amber until the Event Log is read. Usually, the system LED will return to solid green once the log is read.

- In a VMS workstation, setup to log a session to a file (SET H 0/LOG).
- Connect to the Management Processor (MP).
- View Power Status (PS).
- Return to the MP Main Menu.
- View the Virtual Front Panel (VFP).
- Cancel VFP and return to the MP Main Menu.
- Dump and save the Event Log.
- Clear the log files.
- Enter the CM and view the rx2660 firmware revisions (SYSREV).
- In the CM, view the listing of the hardware installed in the rx2660 (DF -ALL).
- Exit the MP session.
- Finish logging the VMS workstation session.
- Review the session log file.

## Details

1. In a VMS workstation, setup to log a session to a file (SET H 0/LOG).

```

PDQVS1$ set h 0/log=mp-troubleshoot-pdqvsa-log.txt

      lqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqk
      x Welcome to PDQVS1 running AXP/VMS V7.3-2 x
      mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

Username: system
Password:

      lqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqk
      x Welcome to PDQVS1 running AXP/VMS V7.3-2 x
      mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

      Last interactive login on Saturday, DECEMBER 8, 2018 12:21 PM
      Last non-interactive login on Thursday, DECEMBER 6, 2018 05:52 PM

      You have 25 new Mail messages.

%DCL-I-DEFKEY, DEFAULT key PF1 has been defined
      8-DEC-2018 15:23:50
PDQVS1$
    
```

2. Connect to the Management Processor (MP).

Per usual convention, the PDQVSA MP Hostname is PDQVCA.

```

PDQVS1$ ssh "Admin@pdqvca"
    
```

Or,

```

PDQVS1$ telnet pdqvca
    
```

```

%TELNET-I-TRYING, Trying ... 192.0.200.226
%TELNET-I-SESSION, Session 01, host 192.0.200.226, port 23
-TELNET-I-ESCAPE, Escape character is ^]
*****
This is a private system.
Do not attempt to login unless you are an authorized user.
Any authorized or unauthorized access or use may be monitored and can
result in criminal or civil prosecution under applicable law.
*****

MP login: Admin
MP password: *****
    
```

MP MAIN MENU:

CO: Console  
 VFP: Virtual Front Panel  
 CM: Command Menu  
 SMCLP: Server Management Command Line Protocol  
 CL: Console Log  
 SL: Show Event Logs  
 HE: Main Help Menu  
 X: Exit Connection

3. Go to the Command Menu (CM) prompt.

```
[pdqvca] MP> cm
```

4. View Power Status (PS).

```
[pdqvca] MP:CM> ps
```

```
PS
For System Processor Status see the SS command.
```

```
System Power state   : On
System Power usage   : 227 Watts
Ambient temperature  : 22 C
Temperature status   : Normal
```

Power supplies	State
Power Supply 1	Normal
Power Supply 2	Not Installed

Fans	State
Fan Unit 1	Normal
Fan Unit 2	Normal
Fan Unit 3	Normal
Fan Unit 4	Normal
Fan Unit 5	Normal
Fan Unit 6	Normal

```
[pdqvca] MP:CM>
```

5. Return to the MP Main Menu.

```
[pdqvca] MP:CM> <Ctrl-B>

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    CO: Console
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    X: Exit Connection
```

6. View the Virtual Front Panel (VFP).

```
[pdqvca] MP> vfp

Welcome to the Virtual Front Panel (VFP).
Use Ctrl-B to exit.

System state           Activity           # of logs since boot
-----
Boot complete                116

E indicates error since last boot

LEDs   | LOCATOR   | SYSTEM   | INT. HEALTH | EXT. HEALTH | POWER
-----|-----|-----|-----|-----|-----
      | OFF       | FLASH AMBER | ON GREEN   | ON GREEN   | ON GREEN
-----|-----|-----|-----|-----|-----
Status | POW:System Power on
      | INT:Internal parts, including CPUs and Memory, and internal fans okay
      | EXT:Power supplies okay
      | SYS:Warning or Critical Fault: Check logs for details
-----|-----|-----|-----|-----

[pdqvca] MP:VFP(Use '?' to display VFP terminal info or Ctrl-B to Quit)> <Ctrl-B>

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    X: Exit Connection

[pdqvca] MP>
```

7. Dump the Event Log.

```
[pdqvca] MP> sl
Event Log Viewer Menu:

  Log Name           Entries    % Full    Latest Timestamped Entry
-----
E - System Event     56         7 %      08 Dec 2018 16:11:34
F - Forward Progress 411        10 %     08 Dec 2018 16:11:34
B - Current Boot     1          0 %      08 Dec 2018 16:07:18
P - Previous Boot    82         27 %
I - iLO Event        28         5 %      08 Dec 2018 16:28:56
C - Clear All Logs
L - Live Events

Enter menu item or [Ctrl-B] to Quit: e

  Log Name           Entries    % Full    Latest Timestamped Entry
-----
E - System Event     56         7 %      08 Dec 2018 16:11:34

Event Log Navigation Help:

+      View next block      (forward in time, e.g. from 3 to 4)
-      View previous block (backward in time, e.g. from 3 to 2)
<CR>   Continue to the next or previous block
D      Dump the entire log
F      First entry
L      Last entry
J      Jump to entry number
H      View mode configuration - Hex
K      View mode configuration - Keyword
T      View mode configuration - Text
A      Alert Level Filter options
U      Alert Level Unfiltered
?      Display this Help menu
Q      Quit and return to the Event Log Viewer Menu
Ctrl-B Exit command, and return to the MP Main Menu

MP:SL (+,-,<CR>,D, F, L, J, H, K, T, A, U, ? for Help, Q or Ctrl-B to Quit) >t
MP:SL (+,-,<CR>,D, F, L, J, H, K, T, A, U, ? for Help, Q or Ctrl-B to Quit) >d
Confirm? (Y/[N]): y

Log Entry 0: 00:00:04
Alert Level 2: Informational
Keyword: BMC_INITIALIZING
BMC firmware initializing
Logged by: Baseboard Management Controller;
Sensor: System Event
Data2: OEM Code2: 0x26
0x2000000004020010 2650A17000120300
```

```

Log Entry 1: 00:00:04
Alert Level 2: Informational
Keyword: ACPI_ON
ACPI state S0 (on)
Logged by: Baseboard Management Controller;
Sensor: System ACPI Power State - ACPI Power State
Data1: S0/G0 working
0x2000000004020020 FFFF006FFA220300

Log Entry 2: 00:00:04
Alert Level 5: Critical
Keyword: VOLTAGE_DEGRADES_TO_NON_RECOVERABLE
Voltage degraded to non-recoverable level - Check all boards with this voltage.
Logged by: Baseboard Management Controller;
Sensor: Voltage - Proc 0 Power
Data1: transition to Non-recoverable from less severe
0x2000000004020030 FFFF0307D0020300

Log Entry 3: 00:00:05
Alert Level 7: Fatal
Keyword: SHUTDOWN_OR_RESET_ON_SENSOR
System shut down or reset caused by sensor reading
Logged by: Baseboard Management Controller;
Sensor: System Event - Proc 0 Power
Data2: OEM Code2: 0xD0
0x2000000005020040 D000A870D0120300

Log Entry 4: 00:00:05
Alert Level 2: Informational
Keyword: CHASSIS_CONTROL_REQUEST
Chassis Control request to BMC via IPMI or sensor
Logged by: Baseboard Management Controller;
Sensor: System Event - Proc 0 Power
Data2: OEM Code2: 0xD0
0x2000000005020050 D000A370D0120300
...
-> This is the last entry in the selected log.

```

MP:SL (+,-,<CR>,D, F, L, J, H, K, T, A, U, ? for Help, Q or Ctrl-B to Quit) >q

Event Log Viewer Menu:

Log Name	Entries	% Full	Latest Timestamped Entry
E - System Event	56	7 %	08 Dec 2018 16:11:34
F - Forward Progress	411	10 %	08 Dec 2018 16:11:34
B - Current Boot	1	0 %	08 Dec 2018 16:07:18
P - Previous Boot	82	27 %	
I - iLO Event	28	5 %	08 Dec 2018 16:28:56
C - Clear All Logs			
L - Live Events			

(Clear the logs.)

```
Enter menu item or [Ctrl-B] to Quit: c
Are you sure you want to clear all logs? (Y/[N]): y

-> Logs have been cleared.

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    X: Exit Connection
(Go back to Command Prompt.)
[pdqvca] MP> cm
        (Use Ctrl-B to return to MP main menu.)
[pdqvca] MP:CM>
```

#### 8. View the firmware revisions.

```
[pdqvca] MP:CM> sysrev

SYSREV

Current firmware revisions

MP FW      : F.02.26
BMC FW     : 05.26
EFI FW     : ROM A 07.14, ROM B 07.14
System FW  : ROM A 04.15, ROM B 04.32, Boot ROM B
PDH FW     : 50.07
UCIO FW    : 03.0b
PRS FW     : 00.08 UpSeqRev: 02, DownSeqRev: 01
HFC FW     : 00.05 SetRev: 00

[pdqvca] MP:CM>
```

## 9. View a listing of the installed hardware.

```
[pdqvca] MP:CM> df -all

DF -all

FRU Entry #    0 :
FRU NAME: System Board ID:0000

CHASSIS INFO:
Type:Main Server Chassis
Part Number    : AB419-2102A
Serial Number  : CN721404GG

BOARD INFO:
Mfg Date/Time  : 3245456
Manufacturer    : INVENTEC
Product Name   : 2 Socket System Board
S/N            : ME23MP0113
Part Number    : AB419-60001
Fru File ID    : 10
Custom Info    :
Custom Info    : 4747
Custom Info    : B1
Custom Info    : 0

PRODUCT INFO:
Manufacturer    : hp
Product Name   : server rx2660
Part/Model     : AH234A
Version        :
S/N            : SGH52160W2
Asset Tag      :
FRU File ID    : 11
Custom Info    : 691

Type <CR> for next entry, or Q to quit:
...
```

**NOTE:** The SN of this HP Integrity rx2660 is SGH52160W2.)



10. Exit the MP session.

```
[pdqvca] MP:CM> <Ctrl-B>

MP MAIN MENU:

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    CL: Console Log
    SL: Show Event LogSTYPE/PAGE MP-TROUBLESHOOT-PDQVSA-LOG.TXT
    HE: Main Help Menu
    X: Exit Connection

[pdqvca] MP> x
    Disconnected; by application ( Client Disconnect ).

Connection to pdqvca closed.

PDQVS1$
```

11. Finish logging the VMS workstation session.

```
PDQVS1$ lo

SYSTEM      logged out at DECEMBER 8, 2018 03:53 PM
%REM-S-END, control returned to node PDQVS1::
PDQVS1$
```

## 12. Review the session log file.

```

PDQVSA$ TYPE/PAGE MP-TROUBLESHOOT-PDQVSA-LOG.TXT

  lqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqk
  x Welcome to PDQVS1 running AXP/VMS V7.3-2 x
  mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

PDQVS1$ ssh "Admin@192.0.200.226"

Admin's password:

...

Event Log Navigation Help:

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?      Display this Help menu
Q      Quit and return to the Event Log Viewer Menu
Ctrl-B Exit command, and return to the MP Main Menu

(Select Text Mode with t then request Dump with d.)

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MP:SL (+,-,<CR>,D, F, L, J, H, K, T, A, U, ? for Help, Q or Ctrl-B to Quit) > d
  Confirm? (Y/[N]):          Press RETURN to continue
y

Log Entry 0: 00:00:04
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Logged by: Baseboard Management Controller;
Sensor: System ACPI Power State - ACPI Power State
Data1: S0/G0 working
0x2000000004020020 FFFF006FFA220300

...

PDQVSA$
```