



AFF-A400 启动循环

https://kb-cn-stage.netapp.com/on-prem/ontap/OHW/OHW-KBs/AFF-A400_boot_loop

Updated: Wed, 22 Apr 2026 07:17:11 GMT

适用于

- AFF-A400
- 网络适配器卡 NIC，100GbE，PCIe gen3 x16，带 P/N X1151 的智能 IO，Riser 适配器

问题描述

- 无法访问 BMC。
- 控制器更换后问题仍然存在
- 启动循环控制台输出示例：

```
...
```

```
Wait BMC self-test result.
```

```
BMC self-test: OK.
```

```
UPI initialization.
```

```
CPU
```

'NetApp provides no representations or warranties regarding the accuracy or reliability or serviceability of any information or recommendations provided in this publication or with respect to any results that may be obtained by the use of the information or observance of any recommendations provided herein. The information in this document is distributed AS IS and the use of this information or the implementation of any recommendations or techniques herein is a customers responsibility and depends on the customers ability to evaluate and integrate them into the customers operational environment. This document and the information

initialization.
Running full memory initialization.
DIMM F0: NVDIMM with valid data and restage progressing.....
DIMM F0: NVDIMM
RESTAGE Success+++++++
SPI FLASH: Backup BIOS
PEI end.
DXE start.
USB initialization.
PCI host bridge initialization.
CSM
initialization.
BIOS Version: 16.1
PEI start.
CPU PEI initialization.
Wait BMC 30 seconds.
Wait BMC self-test result.
BMC
self-test: OK.
UPI initialization.
CPU initialization.
Running full memory initialization.
CPU reset.
BIOS Version: 16.1
PEI
start.
CPU PEI initialization.
Wait BMC self-test result.
BMC self-test: OK.
UPI initialization.
CPU initialization.
Running full
memory initialization.
DIMM F0: NVDIMM with valid data and restage progressing.....
DIMM F0: NVDIMM RESTAGE Success+++++++
SPI
FLASH: Primary BIOS
PEI end.
DXE start.
USB initialization.

```
PCI host bridge initialization.
CSM initialization.
...
```

- BMC 访问，但不会打开系统电源
- 这是一个有故障的 Riser 卡
- 当 BIOS 未正确启动时，我们会看到此输出

```
BMC >
BMC > system power status
Host power is off
BMC > system power status on
[876 : 942 INFO]CHASSIS_POWER_UP from channel 1

[876 : 959 INFO]CHASSIS_CTRL_ACTION: action: 1; SysRestartCause = 1
[876 : 959 INFO]POWER ON CHASSIS

[000101000646][IPMIMain][INFO]set bios to primary
BMC > system power onstatus
Host power is off
BMC >
[000101000703][876:959:IPMIMain][ERROR][PDKHW.c:PDK_PowerOnChassis:321]Timeout
to wait POWER_ON: retry=31
[000101000703][BIOS]PDK_PowerOnChassis change to ENABLE_WATCHDOG
[000101000703][IPMIMain][INFO]InitSysResetTick

BMC > [000101000722][BIOS]BIOSMonitorTask change from ENABLE_WATCHDOG to
MONITOR
[000101000722][BIOS]Set WDT for 100 sec
[000101000722(946685242.816776216)][WDT]Set WDT req : Use=0x5 Action=0x3 Pre-
timeout=0x0 Flag=0x20 Timeout=0x3e8
[000101000722(946685242.887375412)][WDT]Set WDT done: Use=0x5 Action=0x3 Pre-
timeout=0x0 Flag=0x5 Timeout=0x3e8
[000101000722(946685242.888665920)][WDT]InitCountDown=1000

system power status
Host power is off
BMC > [000101000733][BIOS]Monitor: (count = 910, TmrUse = 0x45, ExpirationFlag
= 0x4), t_bios_load_time=90
[000101000743][BIOS]Monitor: (count = 810, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=80
[000101000754][BIOS]Monitor: (count = 710, TmrUse = 0x45, ExpirationFlag =
```

```

0x4), t_bios_load_time=70
[000101000804][BIOS]Monitor: (count = 610, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=60
[000101000815][BIOS]Monitor: (count = 510, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=50
[000101000826][BIOS]Monitor: (count = 410, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=40
[000101000836][BIOS]Monitor: (count = 310, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=30
[000101000847][BIOS]Monitor: (count = 210, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=20
[000101000858][BIOS]Monitor: (count = 110, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=10
[000101000909][BIOS]Monitor: (count = 10, TmrUse = 0x45, ExpirationFlag = 0x4),
t_bios_load_time=0
[000101000909][BIOS]BIOSMonitorTask change from MONITOR to CHANGE_BIOS because
time out;
[000101000910][BIOS]BIOSMonitorTask change from CHANGE_BIOS to NONE_TIMER
[000101000910][BIOS]BIOSMonitorTask: Add SEL for OEM Timeout
[000101000910][BIOS]BIOSMonitorTask: ready to set up backup BIOS and power
cycle
[876 : 950 INFO]POWER CYCLE CHASSIS

[876 : 950 INFO]Lock WDT
[000101000910][IPMIMain][INFO][easywdt_lock] Lock WDT
[000101000912][IPMIMain][INFO]set bios to backup
[000101000912][BIOS]PDK_PowerCycleChassis change to ENABLE_WATCHDOG
[000101000912][BIOS]BIOSMonitorTask: lock and stop watchdog
[000101000933][BIOS]BIOSMonitorTask change from ENABLE_WATCHDOG to MONITOR
[000101000933][BIOS]Set WDT for 100 sec
[000101000933(946685373.18518160)][WDT]Set WDT req : Use=0x5 Action=0x3 Pre-
timeout=0x0 Flag=0x20 Timeout=0x3e8
[000101000933(946685373.87177168)][WDT]Set WDT done: Use=0x5 Action=0x3 Pre-
timeout=0x0 Flag=0x5 Timeout=0x3e8
[000101000933][IPMIMain][INFO][easywdt_unlock] Unlock WDT
[000101000933(946685373.92590288)][WDT]InitCountDown=1000

[000101000944][BIOS]Monitor: (count = 910, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=90
[000101000955][BIOS]Monitor: (count = 810, TmrUse = 0x45, ExpirationFlag =

```

```
0x4), t_bios_load_time=80
[000101001006][BIOS]Monitor: (count = 710, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=70
[000101001016][BIOS]Monitor: (count = 610, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=60

BMC > system power status
Host power is off
BMC > [000101001027][BIOS]Monitor: (count = 510, TmrUse = 0x45, ExpirationFlag
= 0x4), t_bios_load_time=50
[000101001038][BIOS]Monitor: (count = 410, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=40
[000101001048][BIOS]Monitor: (count = 310, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=30
[000101001059][BIOS]Monitor: (count = 210, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=20
[000101001110][BIOS]Monitor: (count = 110, TmrUse = 0x45, ExpirationFlag =
0x4), t_bios_load_time=10
[000101001121][BIOS]Monitor: (count = 10, TmrUse = 0x45, ExpirationFlag = 0x4),
t_bios_load_time=0
[000101001121][BIOS]BIOSMonitorTask change from MONITOR to CHANGE_BIOS because
time out;
[000101001122][BIOS]BIOSMonitorTask change from CHANGE_BIOS to NONE_TIMER
[000101001122][BIOS]BIOSMonitorTask: Add SEL for OEM Timeout
[000101001122][BIOS]BIOSMonitorTask: already using backup BIOS
```