

知 HPE Gen9 server UEFI BIOS下升级BIOS 阵列卡 HBA卡固件的操作方法

BIOS Firmware 固件升级 江丽娜 2018-01-14 发表

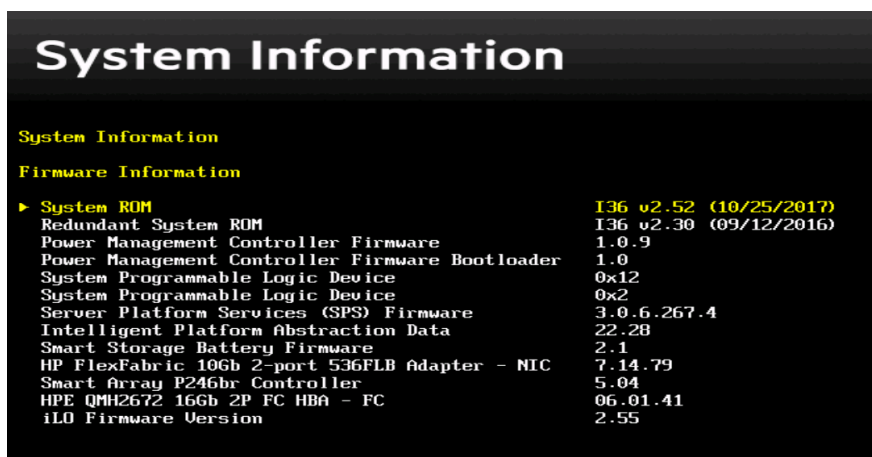
HPE ProLiant Gen9服务器可以在UEFI BIOS中对BIOS、阵列卡、网卡和光纤卡进行固件的升级或降级操作，适用于用户设备允许重启情况下、而且用户不想要在系统下或者不愿下载spp盘的时候，此操作快速方便。

无

一、开机按F9进入BIOS中，选择embedded application/firmware updates，确认到可以升级的固件有BIOS、阵列卡、网卡、HBA卡。

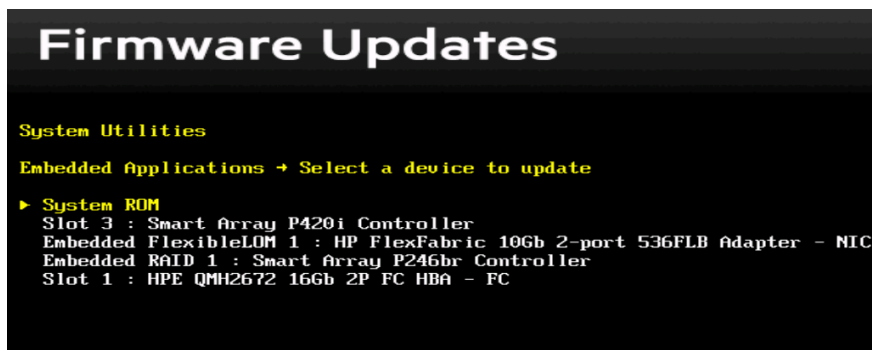


二、查看当前各个固件版本：开机按F9进入BIOS中，选择system information/firmware information中查看。

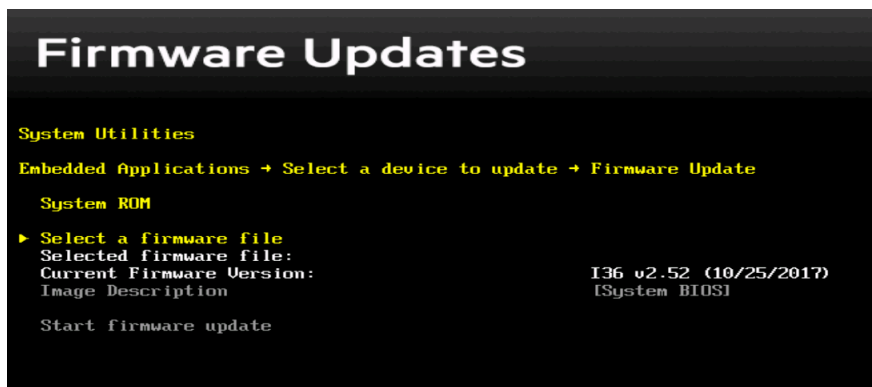


三、通过上图确认BIOS固件是v2.52版本，尝试降级BIOS固件到v2.30版本测试：

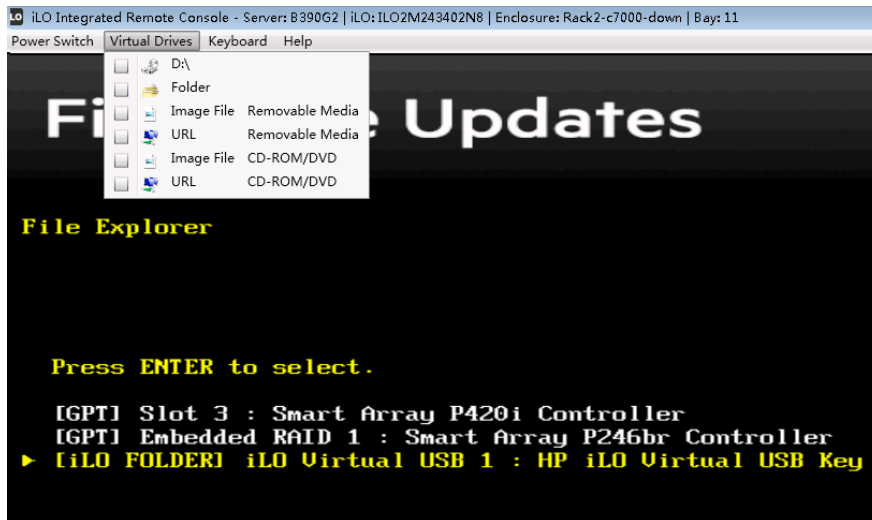
1.开机按F9进入BIOS中，选择embedded application/firmware updates/system ROM。



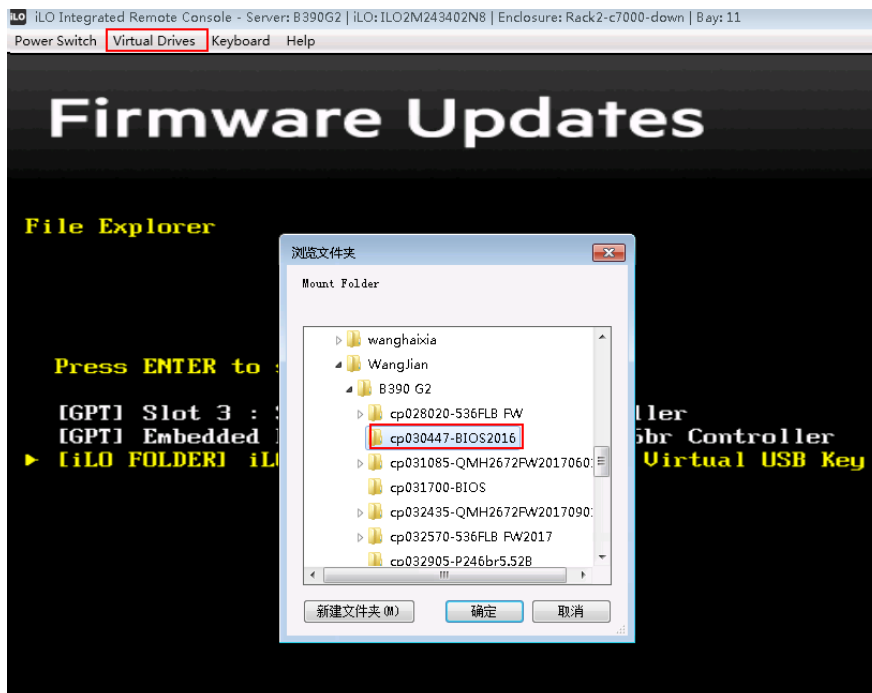
2.用上下键选择到select a firmware file，按回车键。



3.通过ILO的virtual drive选项下的Folder，将v2.30版本的BIOS文件解压缩好的文件夹挂载上，选择virtual drives选项里的Folder选项。



4.浏览找到已经解压缩好的v2.30版本BIOS固件文件夹，点击确定。



5.用上下箭头选择到[iLO FOLDER] iLO Virtual USB 1: HP iLO Virtual USB Key，选中到v2.30版本的BIOS：以.flash为结尾的升级文件。

Firmware Updates

File Explorer

\[iLO FOLDER] iLO Virtual USB 1 : HP iLO Virtual USB Key

Press ENTER to select.

cp030447.xml
cpqsetup.exe
cpqsysio64.sys
► I36_2.30_09_12_2016.signed.flash
SignedImageInstaller64.dll

6.按回车键后，显示正在加载文件，需要等待几分钟。

Firmware Updates

File Explorer

\[iLO FOLDER] iLO Virtual USB 1 : HP iLO Virtual USB Key

Press ENTER to select.

cp030447.xml
cpqsetup.exe
cpqsysio64.sys
► I36_2.30_09_12_2016.signed.flash
SignedImageInstaller64.dll

Loading firmware file from storage. This might take a few minutes...

7.加载完成后，在Selected firmware file中正确识别到之前上传的v2.30版本BIOS的文件名。

Firmware Updates

System Utilities

Embedded Applications → Select a device to update → Firmware Update

System ROM

Select a firmware file	
► Selected firmware file:	I36_2.30_09_12_2016.signed.flash
Current Firmware Version:	I36 v2.52 (10/25/2017)
Image Description	[System BIOS]
Start firmware update	

8.用上下箭头选中到Start firmware update后，按回车键开始升级，有升级的百分比，很快提示升级成功。

Firmware Updates

System Utilities

Embedded Applications → Select a device to update → Firmware Update

System ROM

Select a firmware file	
Selected firmware file:	I36_2.30_09_12_2016.signed.flash
Current Firmware Version:	I36 v2.52 (10/25/2017)
Image Description	[System BIOS]
► Start firmware update	

Firmware update completed successfully.

9.重启设备后，发现BIOS版本已经从原来的v2.52降级到v2.30，降级成功。

```
(C) Copyright 1982 - 2016 Hewlett Packard Enterprise Development LP
H3C UIS B390 G2
BIOS Version: I36 v2.30 (09/12/2016)
Serial Number: 2M243402NB

System Memory: 16 GB
1 Processor(s) detected, 6 total cores enabled, Hyperthreading is not supported
Proc 1: Intel(R) Xeon(R) CPU E5-2609 v3 @ 1.90GHz

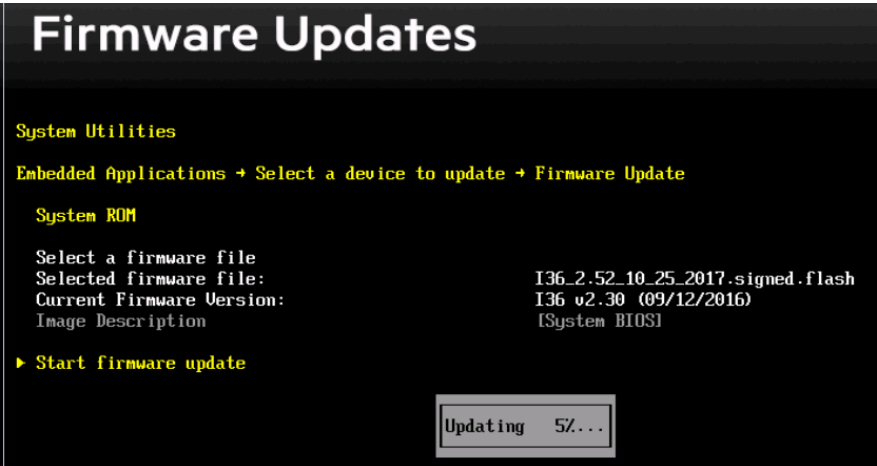
HPE Power Profile Mode: Balanced Power and Performance
Power Regulator Mode: Dynamic Power Savings
Advanced Memory Protection Mode: Advanced ECC Support
Inlet Ambient Temperature: 23°C / 73°F
Boot Mode: UEFI

Redundant ROM Detected - This system contains a valid backup system ROM
HPE SmartMemory authenticated in all populated DIMM slots.

Starting drivers. Please wait, this may take a few moments....

ILO 4 IPv4: 1.1.34.67
ILO 4 IPv6: FE80::FE15:B4FF:FE84:60AA
```

四、升级BIOS固件测试，从v2.30版本升级到v2.52版本：
同理，通过ILO的virtual drives的Folder挂载文件夹，开机按F9进入BIOS中，选择embedded application/firmware updates/system ROM/select a firmware file/[ILO FOLDER] iLO Virtual USB 1: H P iLO Virtual USB key，找到下载后解压缩好的v2.52版本的BIOS文件：
I36_2.52_10_25_2017.signed.flash，按回车键后提示正在加载，然后用上下箭头点到start firmware u
pdate后按回车键，出现更新的百分比。

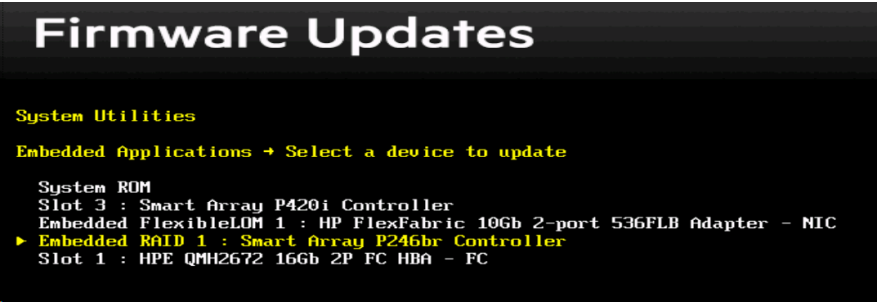


更新提示成功后，重启设备，发现BIOS固件已经从原来的v2.30到v2.52版本，升级成功。

Firmware Version Info		
Firmware Name	Firmware Version	Location
HP FlexFabric 10Gb 2-port 536FLB Adapter	7.14.79	Embedded
HPE Smart Storage Battery 1 Firmware	2.1	Embedded
iLO	2.55 Aug 16 2017	System Board
Intelligent Platform Abstraction Data	22.28	System Board
Intelligent Provisioning	2.70.75	System Board
Power Management Controller Firmware	1.0.9	System Board
Power Management Controller FW Bootloader	1.0	System Board
Redundant System ROM	I36 v2.40 (02/17/2017)	System Board
SAS Programmable Logic Device	Version 0x02	System Board
Server Platform Services (SPS) Firmware	3.0.6.267.4	System Board
Smart Array P246br Controller	6.06	Embedded
System Programmable Logic Device	Version 0x12	System Board
System ROM	I36 v2.52 (10/25/2017)	System Board

注：以上过程说明，UEFI BIOS中既可以升级BIOS固件，也可以降级固件，而且速度快，方便。

五、升级阵列卡P246br固件，开机按F9进入BIOS中，选择embedded application/firmware updates/e
mbedded RAID1: smart array P246br controller。



挂载文件方法和BIOS的相同，通过ILO的virtual drives选项里的Folder中浏览找到，然后选择select a fi
rmware/[ILO FOLDER] iLO Virtual USB 1: HP iLO Virtual USB Key，找到P246br的固件：
firmware_signed.bin.fw按回车键开始加载。

Firmware Updates

File Explorer

\(iLO FOLDER) iLO Virtual USB 1 : HP iLO Virtual USB Key

Press ENTER to select.

cp032781.xml

cpqsetup.exe

► firmware_signed.bin.fw

setup.dll

Loading firmware file from storage. This might take a few minutes...

加载成功后，在selected firmware file中识别到正确的阵列卡固件的文件名。

Firmware Updates

System Utilities

Embedded Applications → Select a device to update → Firmware Update

Embedded RAID 1 : Smart Array P246br Controller

Select a firmware file

► Selected firmware file:

firmware_signed.bin.fw

Current Firmware Version:

5.04

Image Description

[fishman.bin]

Start firmware update

选中到start firmware update后，按回车键开始升级，有百分比。

Firmware Updates

System Utilities

Embedded Applications → Select a device to update → Firmware Update

Embedded RAID 1 : Smart Array P246br Controller

Select a firmware file

Selected firmware file:

firmware_signed.bin.fw

Current Firmware Version:

5.04

Image Description

[fishman.bin]

► Start firmware update

Updating 52%...

提示升级成功。

Firmware Updates

System Utilities

Embedded Applications → Select a device to update → Firmware Update

Embedded RAID 1 : Smart Array P246br Controller

Select a firmware file

Selected firmware file:

firmware_signed.bin.fw

Current Firmware Version:

5.04

Image Description

[fishman.bin]

► Start firmware update

Firmware update completed successfully.

重启设备后，发现阵列卡P246br的固件已经从原来的5.04升级到6.06版本。

System Configuration

HPE QML2672 16Gb 2P FC HBA - FC

Adapter Information

▶ Device Path	PciRoot (0x0) /Pci (0x3,0x0) /Pci (0x0,0x0)
WWPN	50014380368597DC
WWNN	50014380368597DD
Multiboot Firmware Version	6.01.41
UEFI Driver Version	6.54
BIOS Version	3.43
ASIC Firmware Version	8.05.63

- 1.升级的固件文件可以下载windows系统的在线文件，直接解压缩即可。
- 2.固件升级和降级过程中不能断电，需要选择准确的升级文件，提示升级成功后，需要重启设备后才能生效。