

H3C G6 服务器 VMware 系统下升级 P460&P2404&P4408 系列阵列卡固件

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一. 适用范围与注意事项

- 本文档旨在说明 H3C G6 系列服务器通过阵列卡工具在系统下更新阵列卡固件的方法，并以 R4950 G6 服务器安装的 ESXi 7.0 为例进行更新步骤说明。
- 如文中方法不适用或阵列卡型号不匹配，可以通过下面导航链接查找适用文档：
<https://zhiliao.h3c.com/Theme/details/208125>
- 提示：
 - 本文档中的信息（包括产品，软件版本和设置参数）仅作参考示例，具体操作与目标需求设置请以实际为准。
 - 固件更新有风险，请注意提前备份数据。
 - 本文档不定期更新维护，请以发布的最新版本为准。

二. 升级准备

1. 阵列卡工具与固件获取
 - 阵列卡工具 Arcconf 获取：<https://zhiliao.h3c.com/Theme/details/229627>
 - 固件获取：<https://zhiliao.h3c.com/theme/details/214642>
2. 连接 HDM 与启用远程控制台
 - 具体方法请参考：<https://zhiliao.h3c.com/Theme/details/210144>

三. 升级步骤

1. 访问系统

1.1 通过 HDM 启用 KVM/H5 KVM 访问系统

The screenshot shows the H3C HDM management interface. In the top navigation bar, there are tabs like 首页, 系统管理, HDM设置, 远程服务, 远维诊断, 固件&软件, 用户&安全, 联合管理, 智能能效, and a language switch (EN). Below the navigation, there's a user greeting and a '快键访问' (Quick Access) section with icons for 网络设置 (Network Settings), 固件更新 (Firmware Update), 一键收集 (One-click Collection), and 配置管理 (Configuration Management).

系统状态 section displays the H3C UniServer G6 system status, showing 0 critical errors and 2 severe errors. It includes icons for power mode (負載均衡), thermal mode (風冷; 靜音模式), network mode (正常模式), and BMC management.

设备信息 section provides details about the host machine, including its name, serial number, UUID, and BIOS version. It also lists network interfaces (IPv4, IPv6, MAC) and shows the '远程控制台' (Remote Console) section where the 'HS KVM' button is highlighted with a red box.

设备健康 section monitors various hardware components: Processor (2 cores online), Memory (32GB online), Fans (4 online), Power (2 online), Storage (8 physical, 2 logical), PCIe devices (8 online), and Sensors (23 online).

At the bottom right, it shows the HDM2固件版本 (1.24) and the current UTC time (2023-10-07 17:14:01 UTC+08:00).

1.2 通过第三方 SSH 工具访问系统

The screenshot shows a terminal window with a dark theme. The title bar includes 'Terminal', 'Sessions', 'View', 'X server', 'Tools', 'Games', 'Settings', 'Macros', 'Help', and various icons for session management. A 'Quick connect...' field contains the IP address '10.12.'. The main terminal area shows a root login session:

```
login as: root
root@10.12.***'s password:
[root@root ~]#
```

A sidebar on the left is titled 'Sessions' and shows a single session entry with a star icon.

2. 将阵列卡工具与固件包保存到系统下

PMC 阵列卡工具为 `vmware-esx-provider-arccconf.vib`, 固件包为 `luxorc.bin`。

2.1 启用 Shell 并通过 Web Client 将文件保存到系统下

The screenshot shows the VMware ESXi Host Client interface. The left sidebar has sections for 主机 (Host), 管理 (Management), 监控 (Monitoring), 虚拟机 (Virtual Machines), 存储 (Storage), 网络 (Network), and a search bar. The storage section shows a datacenter with datastores 0 and 1. Datastore 1 is selected, and its contents are displayed in the right panel. The 'datastore1' folder contains three files: '.sdd.sf', 'luxorc.bin', and 'vmware-esx-provider...'. There are also buttons for 上载 (Upload), 下载 (Download), 删除 (Delete), 移动 (Move), 复制 (Copy), and 创建目录 (Create Directory).

```

ESXi http://www.vmware.com
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login: root
Password:
[root@localhost:~] cd /vmfs/volumes/datastore1/
[root@localhost:/vmfs/volumes/63578430-c9b6ddec-08c5-5cc999ded9be] ls
luxorc.bin  vmware-esx-provider-arcconf.vib
[root@localhost:/vmfs/volumes/63578430-c9b6ddec-08c5-5cc999ded9be] -

```

2.2 通过第三方 SSH 工具将文件保存到系统下

参考第三方工具使用说明。

3. 安装阵列卡工具

- 1) 将 Arcconf 安装包存放至/tmp 路径下。
- 2) 进入/tmp 路径, 执行 esxcli software vib install -v /tmp/vmware-esx-provider-arcconf.vib -f 命令安装 Arcconf 工具, 默认安装路径为/opt/pmc。

注:

.vib 文件使用绝对路径, 否则会报错;

-f 参数强制安装, 省略可能会出现 “Could not find a trusted signer” 报错。

```

[root@localhost:/tmp] esxcli software vib install -v /tmp/vmware-esx-arcconf.vib -f
Installation Result
Message: Operation finished successfully.
Reboot Required: false
VIBs Installed: MIS_bootbank_arcconf_4.11.25823-MIS
VIBs Removed:
VIBs Skipped: -

```

注: 请将 luxorc.bin 固件包保存到/opt/pmc 路径下。

4. 通过命令确认待升级阵列卡的 ID, 以及更新前固件版本

4.1 查看 Controller ID

执行/opt/pmc/arcconf list 命令, 本例回显 Controller ID 为 1。

```

[root@localhost:/opt/pmc] /opt/pmc/arcconf list
Controllers found: 1
-----
Controller information
-----
Controller ID : Status, Slot, Mode, Name, SerialNumber, WWN
-----
Controller 1:   : Optimal, Slot 3, RAID (Hide RAW), UN RAID P460-B2, Unknown, 5
9C09713533F3000
-----
Command completed successfully.

```

4.2 查看固件版本

执行/opt/pmc/arcconf getconfig <Controller ID> ad | grep Firmware 命令, <Controller ID> 键入阵列卡编号, 本例 Controller ID 为 1。

本例回显固件版本为 5.91。

```

[root@localhost:/opt/pmc] /opt/pmc/arcconf getconfig 1 ad | grep Firmware
Firmware : 5.91

```

此外, 也可在 HDM Web 查看阵列卡固件版本。



5. 通过命令执行固件更新

5.1 执行`/opt/pmc/arcconf romupdate <Controller ID> luxorc.bin`命令，<Controller ID>键入阵列卡编号，本例 Controller ID 为 1。

5.2 输入“y”，并按 Enter 键继续以确认执行更新。

```
[root@localhost:/opt/pmc] /opt/pmc/arcconf romupdate 1 luxorc.bin
Controllers found: 1

Are you sure you want to continue?
Press y, then ENTER to continue or press ENTER to abort: y

Updating controller 1 firmware...
Succeeded
You must restart the system for firmware updates to take effect.

Command completed successfully.
```

注：固件更新后需重启服务器才能生效。

6. 通过命令确认更新后固件版本

`/opt/pmc/arcconf getconfig <Controller ID> ad | grep Firmware`

此外，也可在 HDM Web 查看阵列卡固件版本。

