

HPE Gen12 服务器

MR 系列阵列卡离线 MRSA 扩容阵列

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一. 适用范围与注意事项

➤ 本文档旨在说明 HPE Gen12 系列服务器 MR 系列阵列卡离线 MRSA 下扩容阵列并以 DL360 Gen12 服务器为例进行配置步骤说明，请注意 Gen12 Intelligent Provisioning 5.00 以后版本支持此功能。

MR 系列阵列卡包含如下型号：

- HPE MR416i-p Gen12
- HPE MR416i-o Gen12
- HPE MR216i-p Gen12
- HPE MR216i-o Gen12
- HPE MR408i-o Gen12
- HPE MR408i-p Gen12
- 实际情况是否适用本文档，请通过下面导航链接进行确认：

<https://zhiliao.h3c.com/Theme/details/218271>

➤ 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。

本文档不定期更新维护，请以发布的最新版本为准。

二. 配置准备

1. 连接 iLO 与启用远程控制台

具体方法请参考：<https://zhiliao.h3c.com/theme/details/233627>

三. 配置步骤

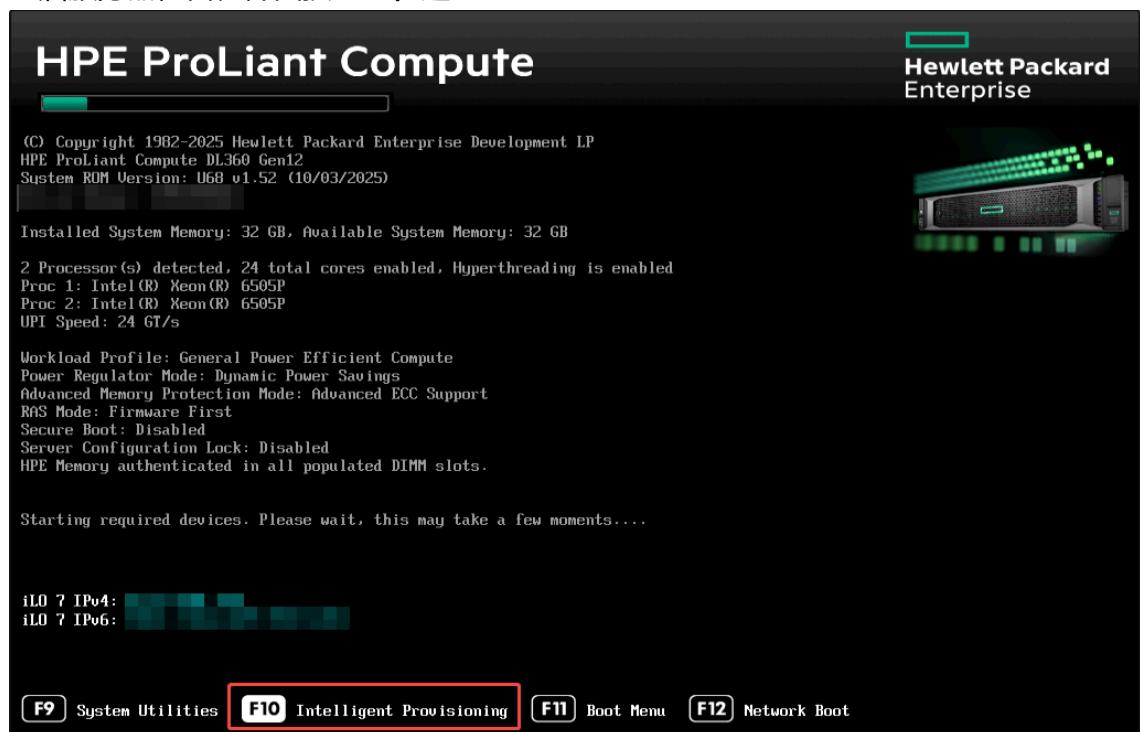
1. 启用 MR Storage Administrator

1.1 通过 iLO 远程控制台

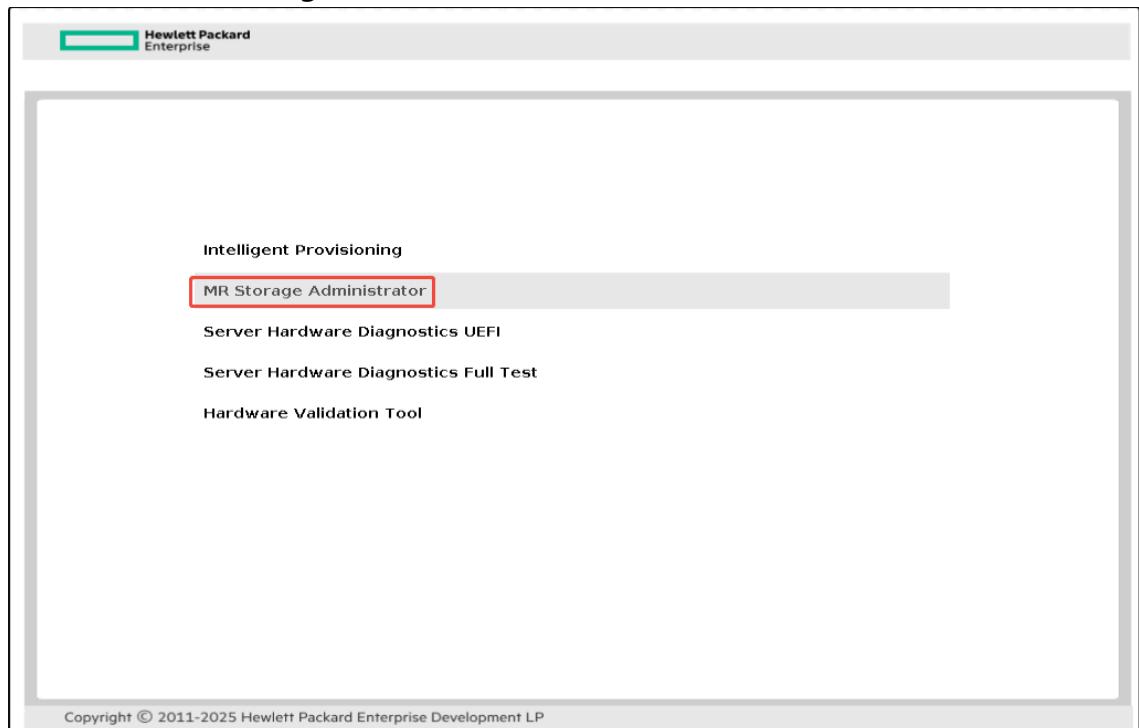
- 1) 通过 iLO7 页面 **Dashboard - Virtual Media & Remote Console** 选项，或 **Host - Remote Console** 页面，或页面左下方 **Remote Console** 选区可直接启用远程控制台；也可在上方搜索栏，直接搜索 **Remote Console** 进行选择。本文以 HTML5 远程控制台为例。

The screenshot shows the HPE iLO7 interface. On the left sidebar, the 'Host' option is selected and highlighted with a red box. Below it, the 'Remote Console' section is also highlighted with a red box, and a red arrow points to the 'Launch' button at the bottom of this section.

- 2) 重启服务器，自检界面按 **F10**，进入 IP。



3) 此界面选择 **MR Storage Administrator** 引导进入。



注: 此处会提示需要输入 iLO 用户名密码，均无回显，正常输入即可，输入完回车即可登录 MRSA。



2. 扩容阵列

1) 选择 MR416i-o 阵列卡，查看需要扩容的逻辑卷信息。本文档以 3 块硬盘的 RAID5 添加一块硬盘进行扩容为例。

The screenshot shows the 'MR Storage Administrator' interface. At the top, there is a header with the controller information: 'PCI Slot: 14 HPE MR416i-o Gen11', 'Run 133', 'Dev 0', and 'Status: OK'. On the right side, there is a 'Controller Actions' sidebar with options like 'Personality Management', 'Configure', 'Update Firmware', 'Show Events', and 'More Actions'. The main content area shows 'Controller Information' with fields for 'Serial Number' (P22VHDCBKQ775), 'SAS Address' (0x500062622225f3c0), and 'Driver Version' (7.7.17.02.00). Below this, there are summary sections for '2 Arrays' (2 Volumes), '10 Drives' (6 Unconfigured Drives), and '3 Other Hardware' (Includes Energy Pack). The 'Array_0' section shows 'RAID 0 - 1 Volumes & 1 Drives' with 'Used 1.454 TB of 1.454 TB Available'. The 'Array_1' section shows 'RAID 5 - 1 Volumes & 3 Drives' with 'Used 13.971 TB of 13.971 TB Available'. A green box highlights the 'Array_1' section.

2) 选择逻辑卷，点击 **Modify Array**。

The screenshot shows the 'Controller Information' section with details like Serial Number (P2DViHOCBHQ775), SAS Address (0x500062022225f3c0), and Driver Version (7.717.02.00). Below it is the 'Array List' section, which displays two arrays: 'Array_0' (RAID 0, 1 Volumes & 1 Drives, Used 1.454 TB of 1.454 TB Available) and 'Array_1' (RAID 5, 1 Volumes & 3 Drives, Used 13.971 TB of 13.971 TB Available). A red arrow highlights 'Array_1'. On the right, the 'Controller Actions' sidebar includes options like 'Configure', 'Update Firmware', and 'Element(s) Actions' (with 'Modify Array' selected).

- 3) 选择需要扩容的 RAID 级别，以 RAID5 为例，勾选“It is advisable to backup data before you proceed. Are you sure you want to continue?”之后点击 **Next**。 (注：建议备份重要数据后再进行操作)

The screenshot shows the 'Modify Array' configuration page for 'Array_1'. It includes a 'RAID Level Setting' dropdown set to RAID 5, a note about its suitability for multi-user environments, and a checked checkbox for backing up data before proceeding. A red box highlights the 'Next' button at the bottom right.

- 4) 点击 **Add Drives** 添加所需扩容到阵列中的硬盘，选择之后点击 **Finish**。

The screenshot shows the 'Modify Array' configuration page for 'Array_1'. It displays a '1 Available Unconfigured Drive(s)' dialog box containing a table with one row: Port 21_Box=2_Bay=1, ID 10, SSD, SAS, 6.986TB, 512B, Model VO007680PXMTT. A red box highlights the 'Add Drives' button at the bottom of the dialog.

← Go back to Array, Drives and Other Hardware list Close

Modify Array ?

Choose your array settings

Array_1

4 Drives [Add Drives](#)

You have selected To migrate from RAID 5 to RAID 6.

Port 11,Box=1,Bay=4, Model-V0007680PXMOTT SAS, 6.986 TB
Port 11,Box=1,Bay=5, Model-V0007680PXMOTT SAS, 6.986 TB
Port 11,Box=1,Bay=6, Model-V0007680PXMOTT SAS, 6.986 TB
Port 21,Box=2,Bay=1, Model-V0007680PXMOTT SAS, 6.986 TB

X

Back Finish

5) 扩容操作执行提示成功。

PCI Slot: 14 HPE MR416i-o Gen11 Bus 133 Dev 0 Ow

Controller Information

Configured Capacity 22.412 TB of 33.125 TB

Serial Number PZDVHOCBHQ775 SAS Address 0x500062b2225f3c0 Driver Version 7.717.02.00

Controller Actions

- Personality Management
- Configure (Selected)
- Update Firmware Package Version 52.32.3-6333
- Show Events
- More Actions

← Go back to Array, Drives and Other Hardware list Close

Modify Array ?

Completed Array_1 RAID 5 | 1 Volumes and 4 Drives

Back Finish

6) 查看当前扩容进度 (扩容过程较慢, 需要耐心等待扩容完成即可)。

PCI Slot: 14 HPE MR416i-o Gen11 Bus 133 Dev 0 Ow

Controller Information

Configured Capacity 29.398 TB of 33.125 TB

Serial Number PZDVHOCBHQ775 SAS Address 0x500062b2225f3c0 Driver Version 7.717.02.00

Background Processes in Progress

Transformation : Volume 237 0%

Controller Actions

- Personality Management
- Configure
- Update Firmware Package Version 52.32.3-6333
- Show Events
- More Actions

Element(s) Actions

Select any Array, Volume or Drive to view its actions

2 Arrays 2 Volumes **10 Drives 5 Unconfigured Drives** **3 Other Hardware Includes Energy Pack**

Array_0 RAID 0 | 1 Volumes & 1 Drives Used 1.454 TB of 1.454 TB Available

Array_1 RAID 5 | 1 Volumes & 3 Drives Used 13.971 TB of 13.971 TB Available

7) 扩容完成。

PCI Slot: 14 HPE MR416i-o Gen11 Bus 133 Dev 0 Ow

Controller Information

Configured Capacity 29.398 TB of 33.125 TB

Serial Number PZDVHOCBHQ775 SAS Address 0x500062b2225f3c0 Driver Version 7.717.02.00

Controller Actions

- Personality Management
- Configure
- Update Firmware Package Version 52.32.3-6333
- Show Events
- More Actions

Element(s) Actions

Select any Array, Volume or Drive to view its actions

2 Arrays 2 Volumes **10 Drives 5 Unconfigured Drives** **3 Other Hardware Includes Energy Pack**

Array_0 RAID 0 | 1 Volumes & 1 Drives Used 1.454 TB of 1.454 TB Available

Array_1 RAID 5 | 1 Volumes & 4 Drives Used 20.957 TB of 20.957 TB Available

Port,Box,Bay	Device/Persistent ID	Media	Interface	Capacity	Sector Size	Model
Port 21,Box=2,Bay=1	10	SSD	SAS	6.986TB	512B	V0007680PXMOTT
Port 11,Box=1,Bay=4	9	SSD	SAS	6.986TB	512B	V0007680PXMOTT
Port 11,Box=1,Bay=5	11	SSD	SAS	6.986TB	512B	V0007680PXMOTT
Port 11,Box=1,Bay=6	9	SSD	SAS	6.986TB	512B	V0007680PXMOTT