

HPE Gen12 服务器

MR 系列阵列卡 BIOS 下配置阵列

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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 系列阵列卡在 BIOS 下配置阵列的方法，并以 DL360 Gen12 服务器为例进行配置步骤说明。
- 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

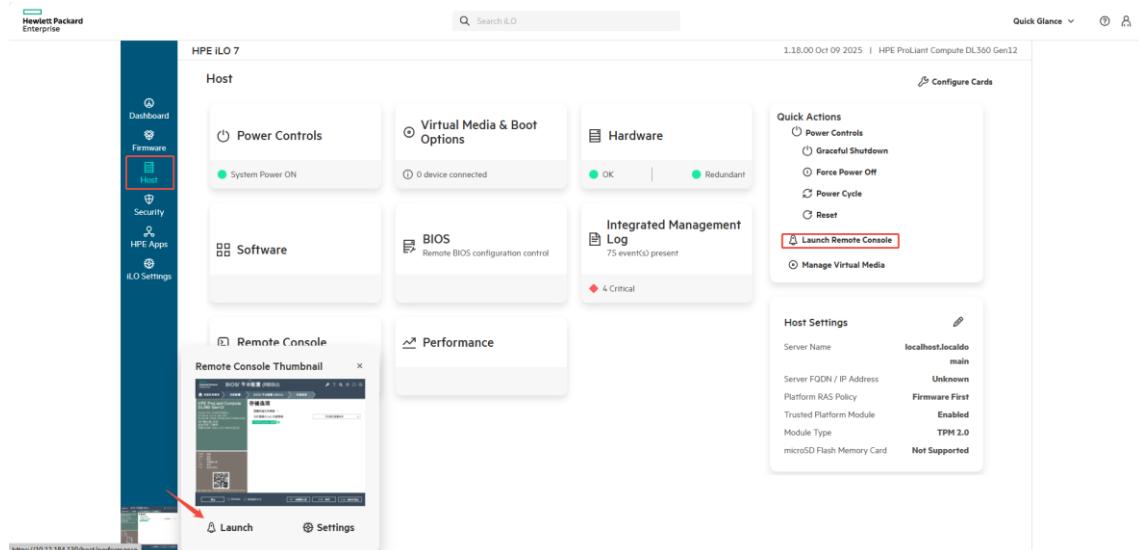
1. 连接 iLO 与启用远程控制台

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

三. 配置步骤

1. 访问 iLO 并启用远程控制台

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。



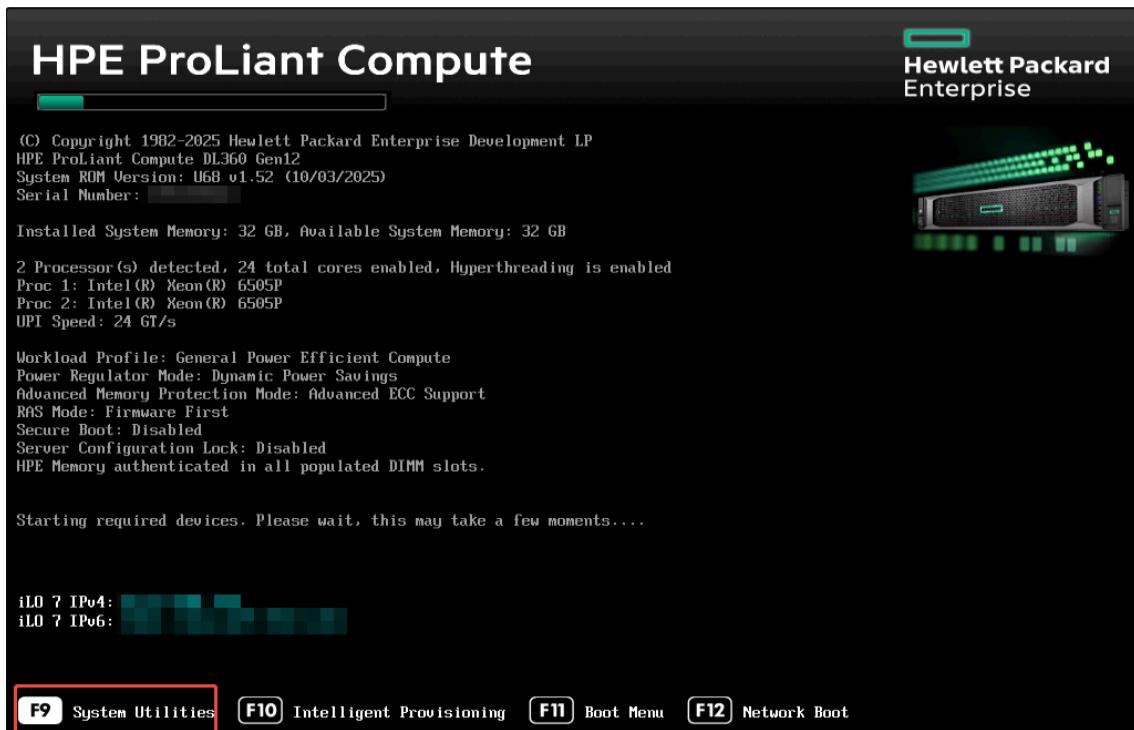
The screenshot shows the HPE iLO 7 interface. On the left, a sidebar menu includes 'Dashboard', 'Firmware', 'Host' (which is highlighted with a red box), 'Security', 'HPE Apps', and 'ILO Settings'. The main content area is titled 'Host' and contains several cards: 'Power Controls' (System Power ON), 'Virtual Media & Boot Options' (0 device connected), 'Hardware' (OK, Redundant), 'Software' (BIOS, Remote BIOS configuration control), and 'Integrated Management Log' (75 event(s) present, 4 Critical). On the right, there's a 'Quick Actions' section with options like 'Power Controls', 'Graceful Shutdown', 'Force Power Off', 'Power Cycle', 'Reset', 'Launch Remote Console' (which is also highlighted with a red box), and 'Manage Virtual Media'. Below this is a 'Host Settings' table with the following data:

Server Name	localhost:Jocaldo main
Server FQDN / IP Address	Unknown
Platform RAS Policy	Firmware First
Trusted Platform Module	Enabled
Module Type	TPM 2.0
microSD Flash Memory Card	Not Supported

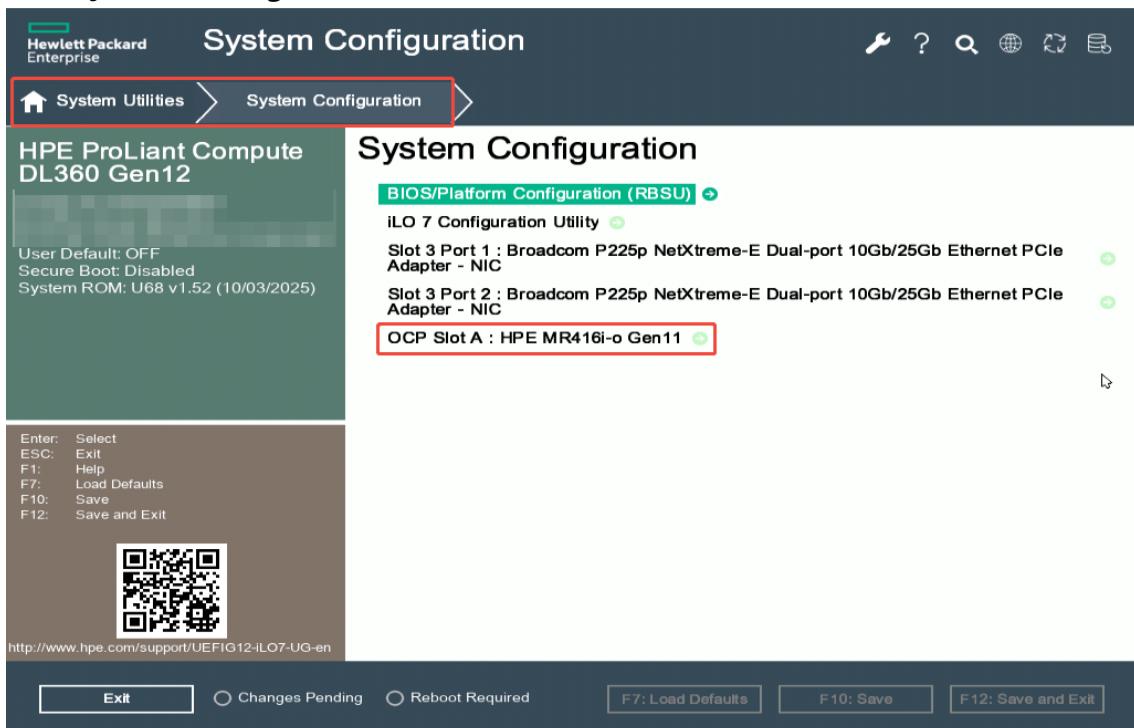
At the bottom left of the main content area, there's a 'Remote Console Thumbnail' window showing a preview of the remote console interface, with 'Launch' and 'Settings' buttons. The URL 'https://10.12.184.130/host/performance' is visible at the bottom of the page.

2. 进入 BIOS 并找到阵列卡选项

1) 重启服务器，自检界面按 F9 进入 BIOS。



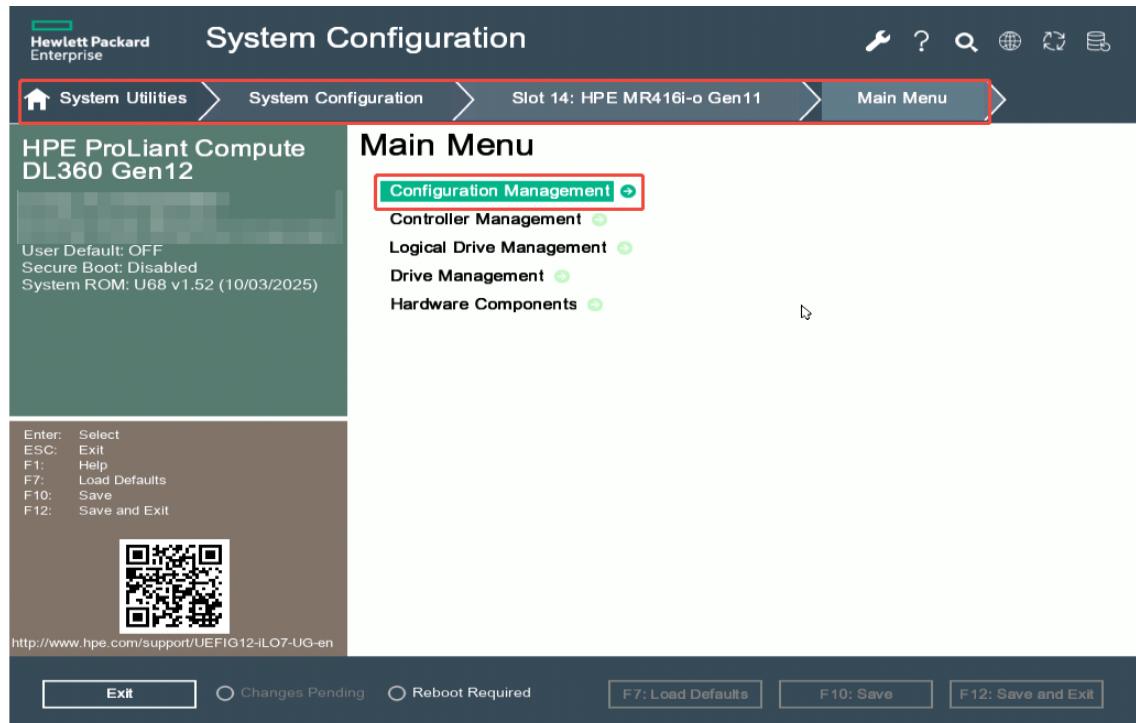
2) 选择 **System Configuration**, 找到阵列卡。



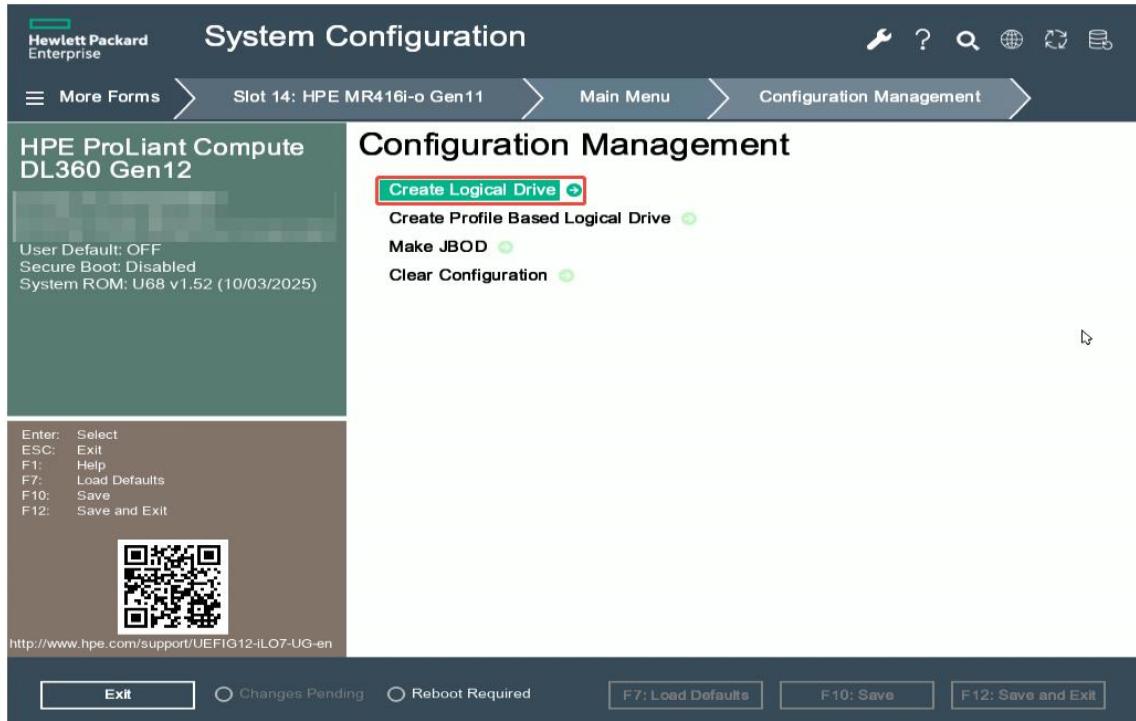
3. 创建与删除阵列

3.1 创建阵列

1) 选择 **Main Menu - Configuration Management**。



2) 选择 **Create Logical Drive**，开始创建阵列。



3) 先选择阵列级别，这里选择做 RAID5。然后选择硬盘，设置逻辑卷名称，容量大小等信息。

System Configuration

More Forms > Main Menu > Configuration Management > Create Logical Drive >

HPE ProLiant Compute DL360 Gen12

User Default: OFF
Secure Boot: Disabled
System ROM: U68 v1.52 (10/03/2025)

Enter: Select
ESC: Exit
F1: Help
F7: Load Defaults
F10: Save
F12: Save and Exit

Create Logical Drive

Save Configuration

Select RAID Level

Secure Logical Drive

Unmap Capability

Select Drives From

CONFIGURE LOGICAL DRIVE PARAMETERS:

Logical Drive Name

Logical Drive Size

Logical Drive Size Unit

Strip Size

Read Policy

Write Policy

I/O Policy

Exit

System Configuration

More Forms > Configuration Management > Create Logical Drive > Select Drives >

HPE ProLiant Compute DL360 Gen12

User Default: OFF
Secure Boot: Disabled
System ROM: U68 v1.52 (10/03/2025)

Enter: Select
ESC: Exit
F1: Help
F7: Load Defaults
F10: Save
F12: Save and Exit

Select Drives

Apply Changes

Select Media Type

Select Interface Type

Logical Sector Size

CHOOSE UNCONFIGURED DRIVES:

Port 1I, Box 1, Bay 1: SAS, HDD, 300GB, Unconfigured Good
 Port 1I, Box 1, Bay 2: SAS, HDD, 300GB, Unconfigured Good
 Port 1I, Box 1, Bay 3: SAS, HDD, 300GB, Unconfigured Good

Port 1I, Box 1, Bay 7: NVMe, SSD, 1.600TB, Unconfigured Good, (Unmap)
 Port 1I, Box 1, Bay 8: NVMe, SSD, 1.600TB, Unconfigured Good, (Unmap)
 Port 2I, Box 2, Bay 2: NVMe, SSD, 1.600TB, Unconfigured Good, (Unmap)

Check All **Uncheck All** **Apply Changes**

Exit

注: 若要创建 RAID10/RAID50/RAID60 等复合阵列, 则需要先分开创建 span, 过程如下。
以 RAID10 为例, 先选择两块盘创建一个 span 空间, 点击 **Apply Changes** 提交申请。

Select Drives

Apply Changes

Select Media Type: Both

Select Interface Type: All

Logical Sector Size: Both

CHOOSE UNCONFIGURED DRIVES:

Port 11, Box 1, Bay 1: SAS, HDD, 1.200TB, Unconfigured Good

Port 11, Box 1, Bay 2: SAS, HDD, 1.200TB, Unconfigured Good

Port 11, Box 1, Bay 3: SAS, HDD, 1.200TB, Unconfigured Good

Port 11, Box 1, Bay 4: SAS, HDD, 1.200TB, Unconfigured Good

Port 11, Box 1, Bay 5: SAS, HDD, 1.200TB, Unconfigured Good

Port 11, Box 1, Bay 6: SAS, HDD, 1.200TB, Unconfigured Good

Check All

Uncheck All

Apply Changes

第一个空间 span0 创建成功，点击 **OK**。

点击 **Add More Span**。

Create Logical Drive

Save Configuration

Select RAID Level: RAID10

Secure Logical Drive

Unmap Capability: Disabled

Select Drives From: Unconfigured Capacity

SELECT SPAN(S):

Add More Spans

Span 0:
Select Drives Active when configuring a spanned logical drive. It allows the user to add additional spans.

Add More Spans

点击 **Select Drives**，再选择 2 块硬盘，点击 **Apply Changes** 提交申请。这样就可以看到创建好的 2 个 span。

Create Logical Drive

Save Configuration

Select RAID Level: RAID10

Secure Logical Drive

Unmap Capability: Disabled

Select Drives From: Unconfigured Capacity

SELECT SPAN(S):

Span 0:
Select Drives

Span 1:
Select Drives

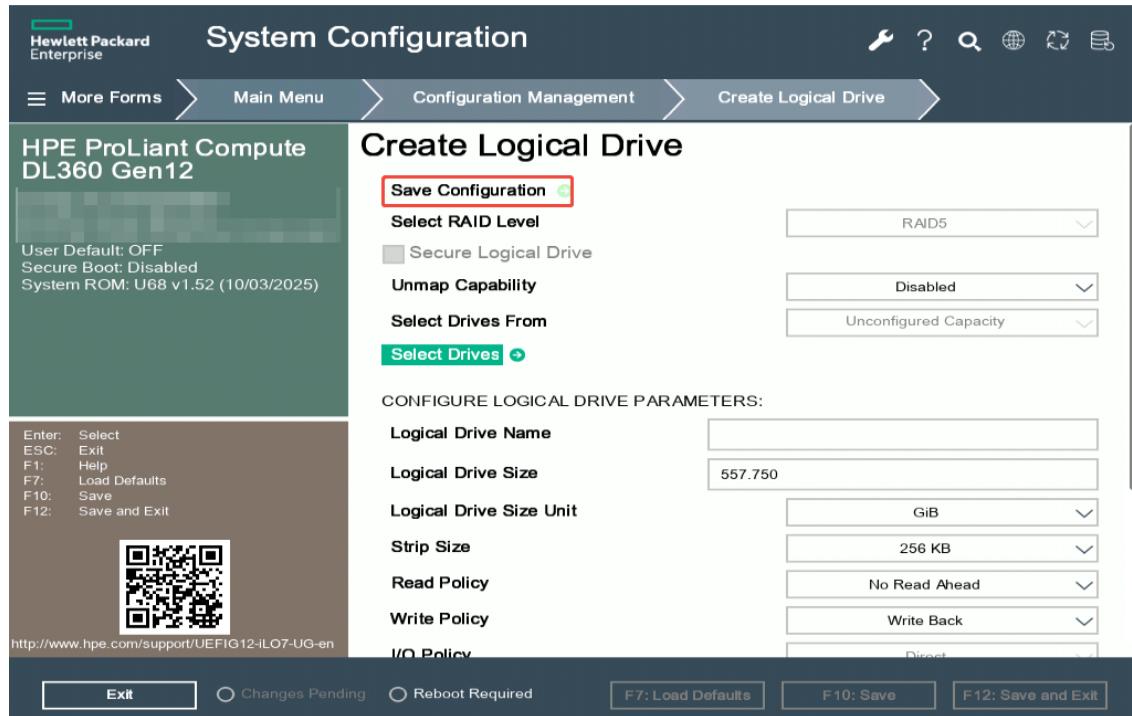
Add More Spans

设置 Span 的说明：

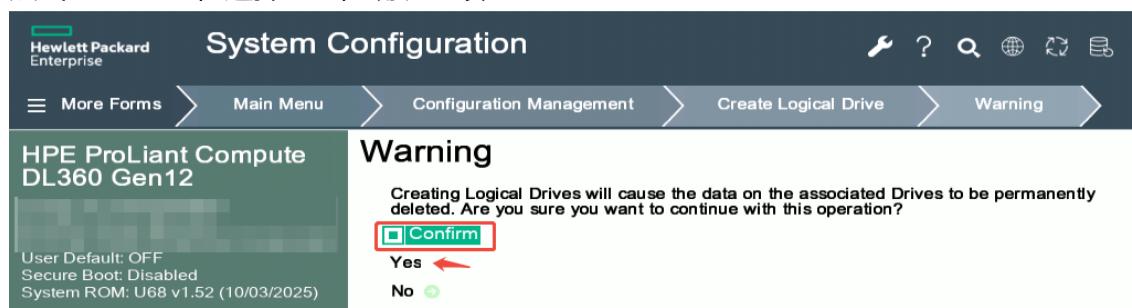
- RAID 10 支持 2 ~ 8 个 Span，每个 Span 支持的硬盘数为 2 ~ 16 (偶数)，且各个 Span 的硬盘数量必须保持一致。

- RAID 50 支持 2~8 个 Span, 每个 Span 支持的硬盘数为 3~32, 且各个 Span 的硬盘数量必须保持一致。
- RAID 60 支持 2~8 个 Span, 每个 Span 支持的硬盘数为 3~32, 且各个 Span 的硬盘数量必须保持一致。

4) 设置完成后, 点击 **Save Configuration** 保存所有配置。



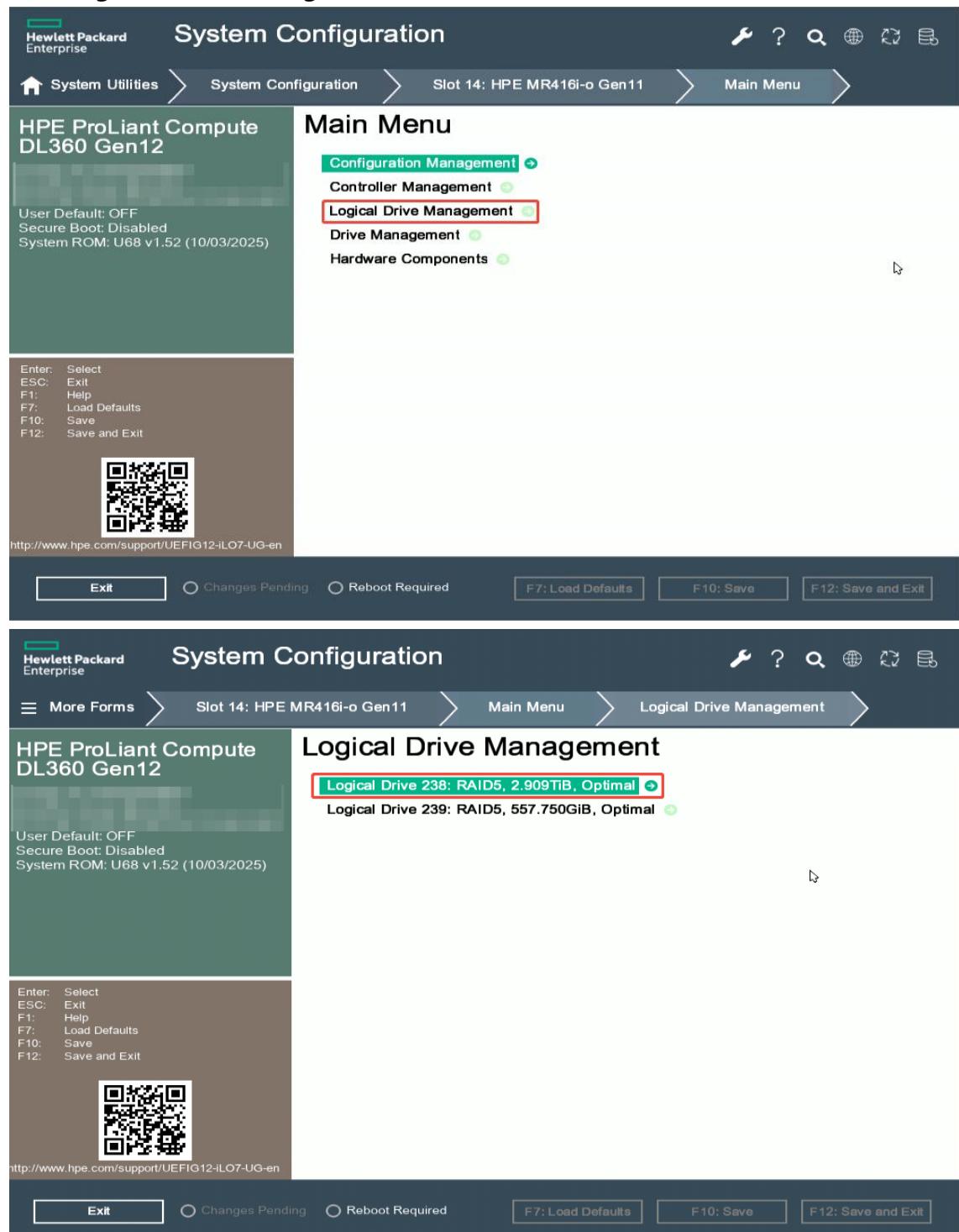
5) 点击 **Confirm**, 选择 **Yes**, 确认继续。



6) 创建成功, 点击 **OK**。

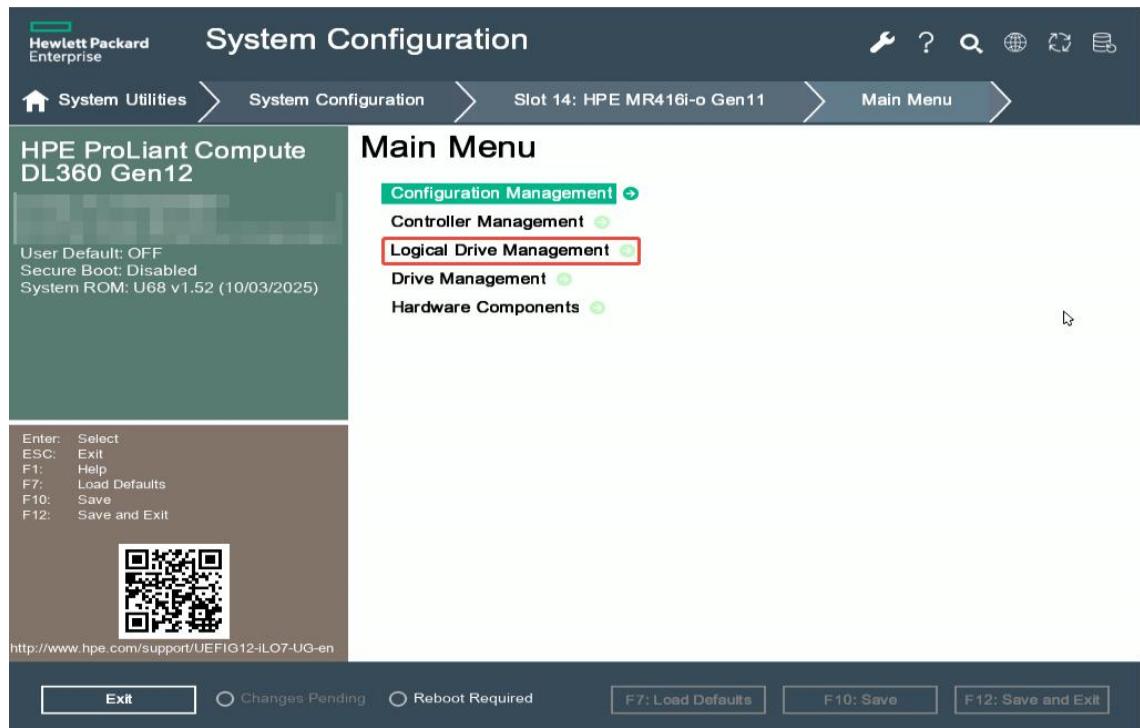


7) 进入 **Logical Drive Management** 即可查看到已经创建的 RAID。

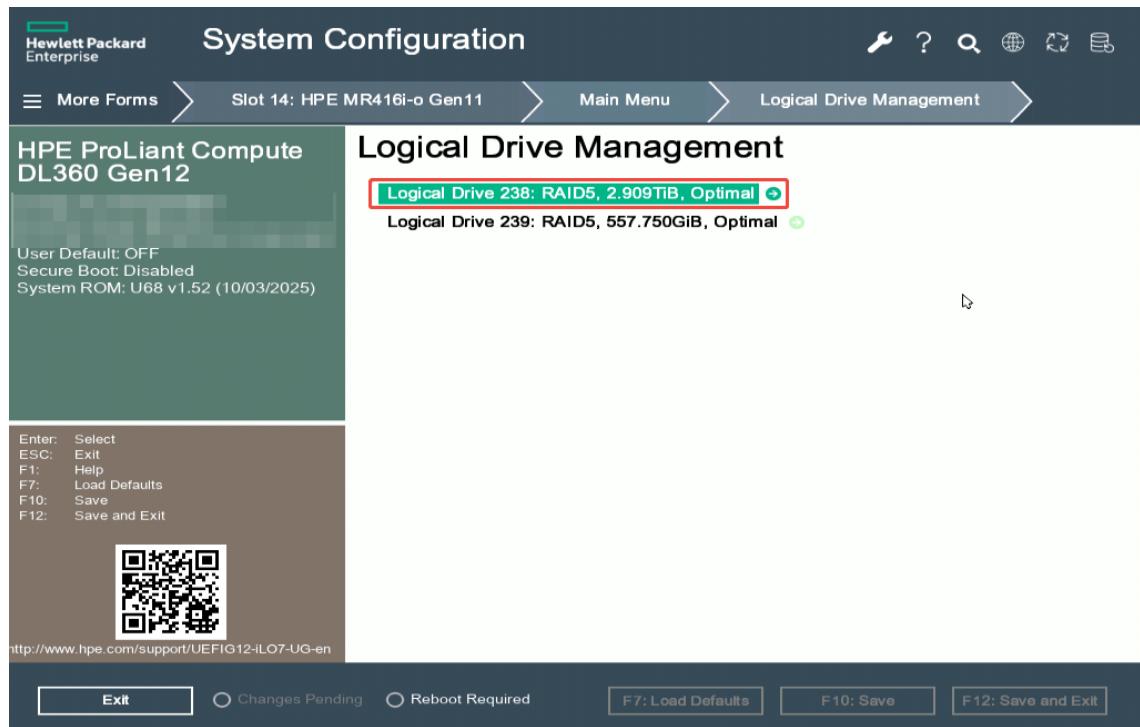


3.2 删 除阵列

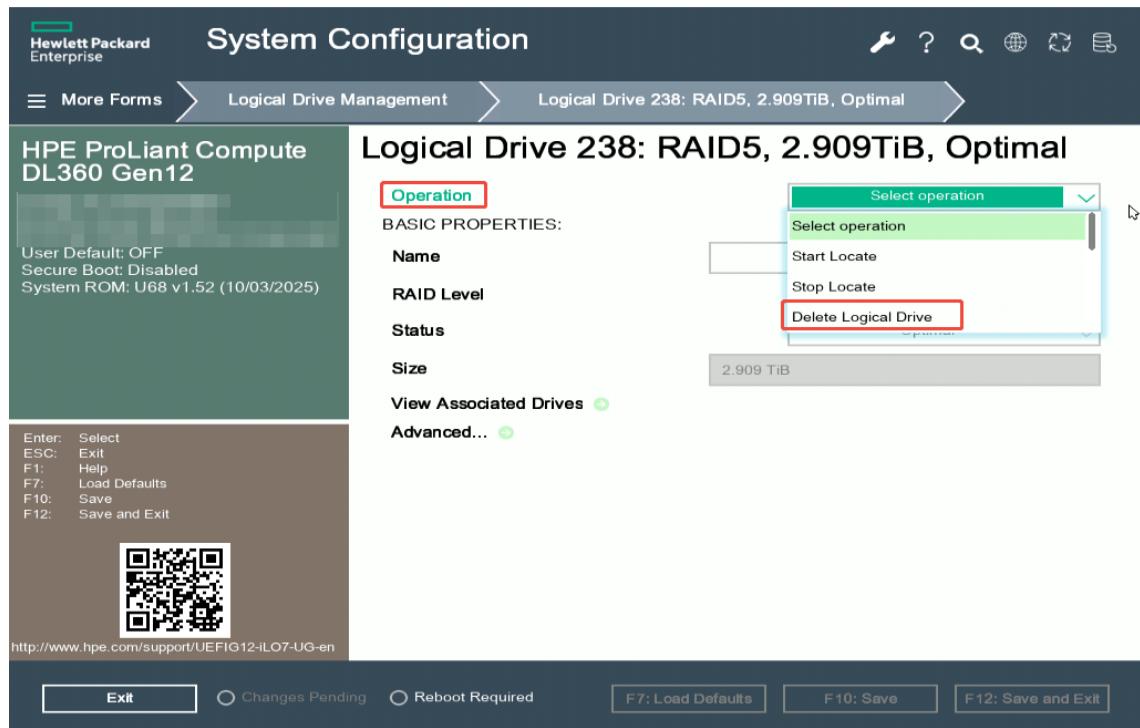
1) 选择 **Logical Drive Management**。



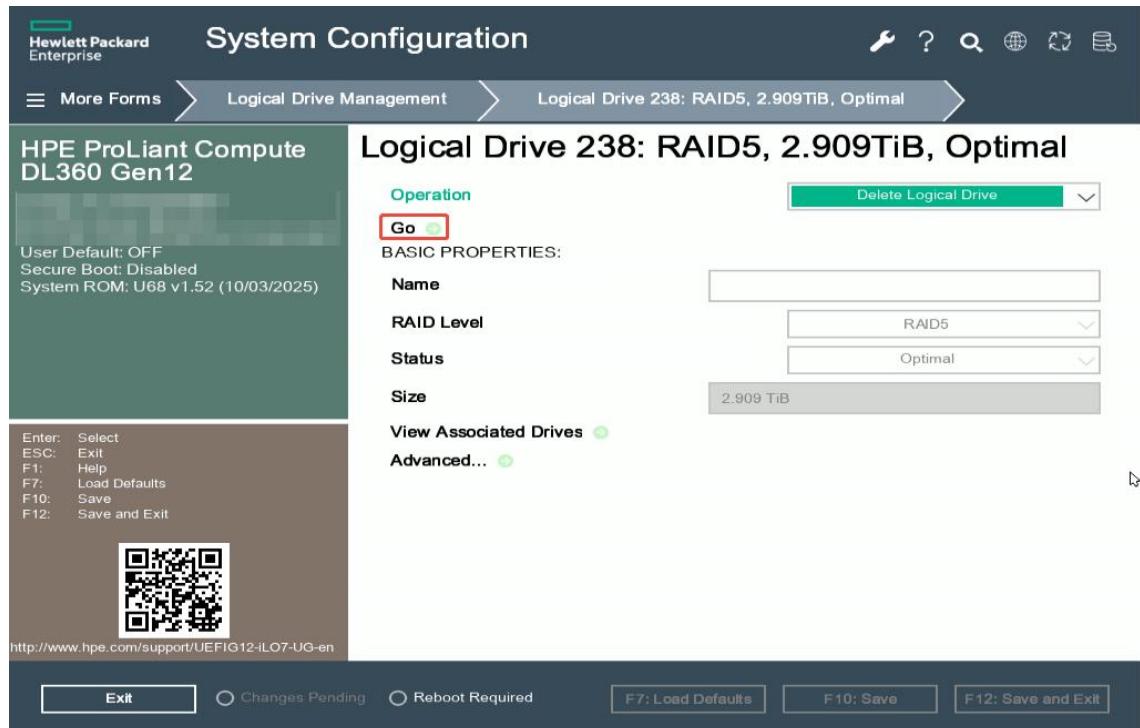
2) 选择要删除的逻辑卷。



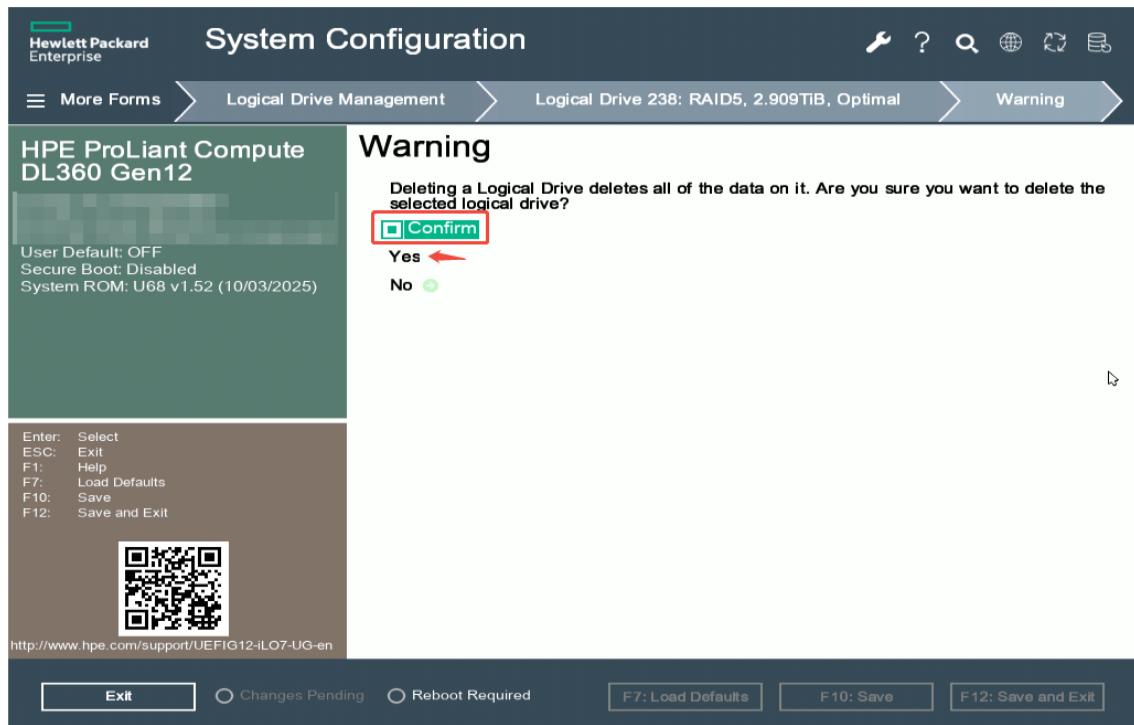
3) 选择 Operation 下的 Delete Logical Drive 选项。



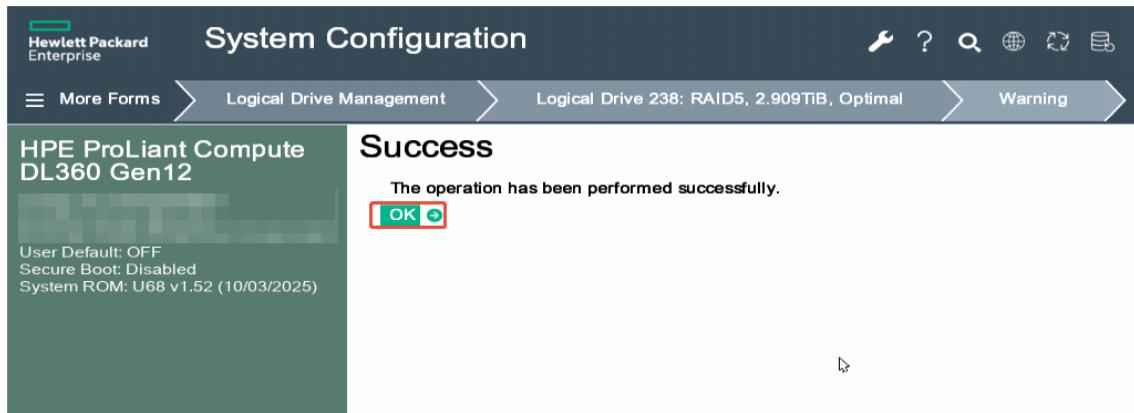
4) 点击 Go。



5) 点击 Confirm, 选择 Yes, 确认删除。



6) 删除成功，点击 **OK**。



4. 创建与删除热备

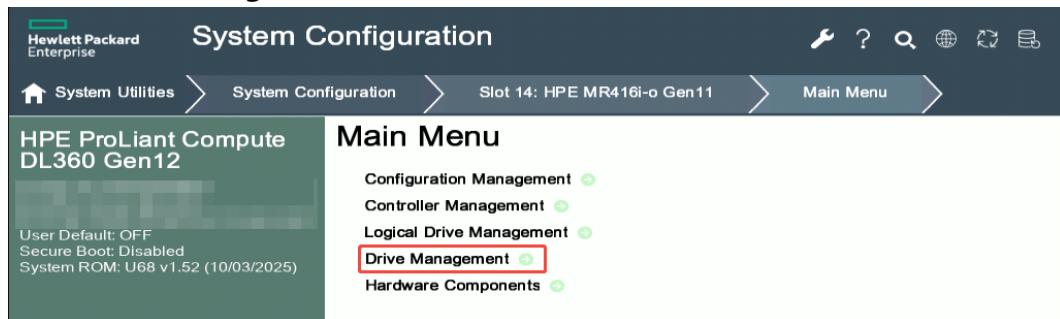
热备盘类型：

- ✓ 全局热备：热备盘为存储控制卡下所有符合要求的逻辑盘所共有，当任一逻辑盘的成员盘发生故障时，全局热备盘均可自动替代该故障盘，更换故障盘后，热备盘中的数据会回拷至新的物理盘，全局热备盘会恢复热备状态。
- ✓ 专属热备：热备盘专用于存储控制卡下的某一个逻辑盘。当存储控制卡下的该逻辑盘的成员盘发生故障时，专属热备盘会自动替代该故障盘，更换故障盘后，热备盘中的数据会回拷至新的物理盘，专属热备盘会恢复热备状态。

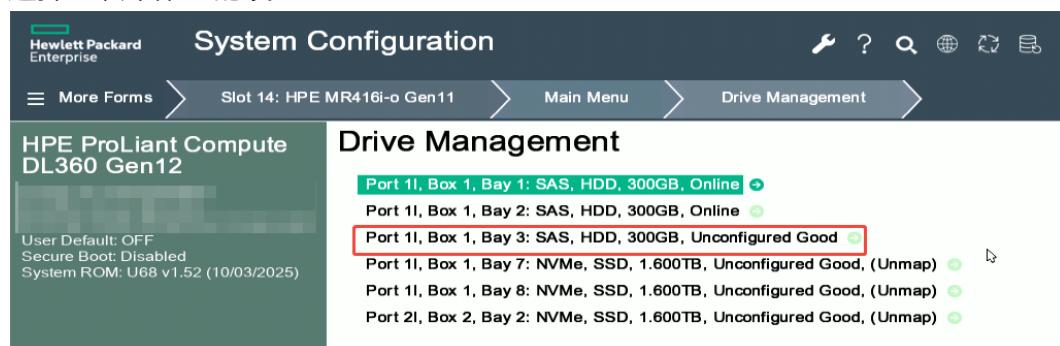
4.1 创建热备

4.1.1 创建专属热备

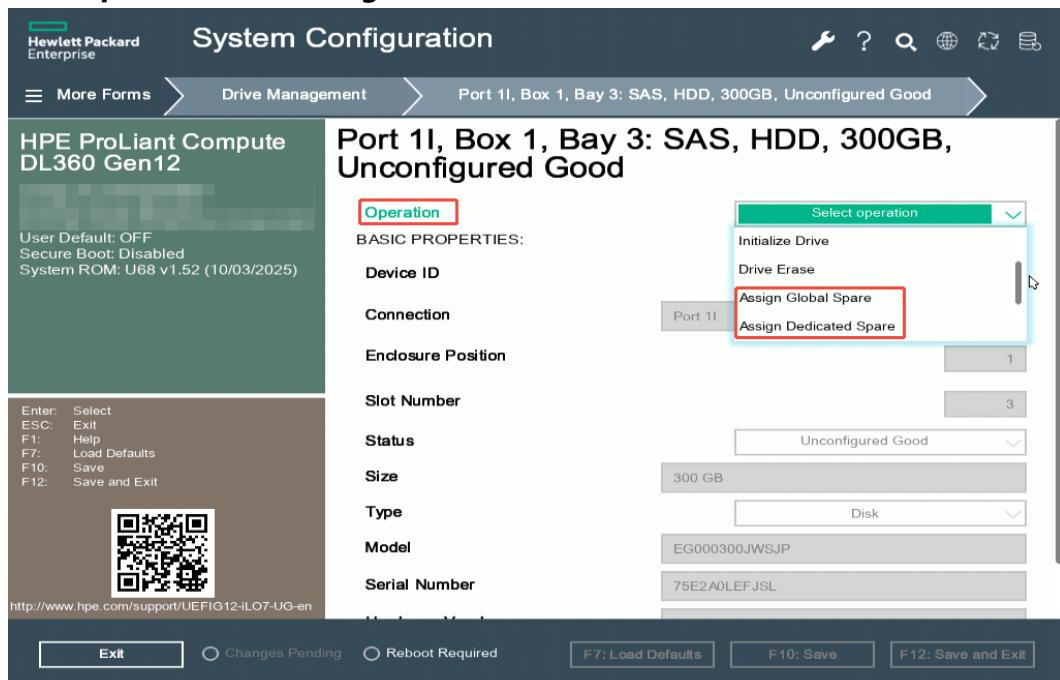
1) 选择 **Drive Management**。



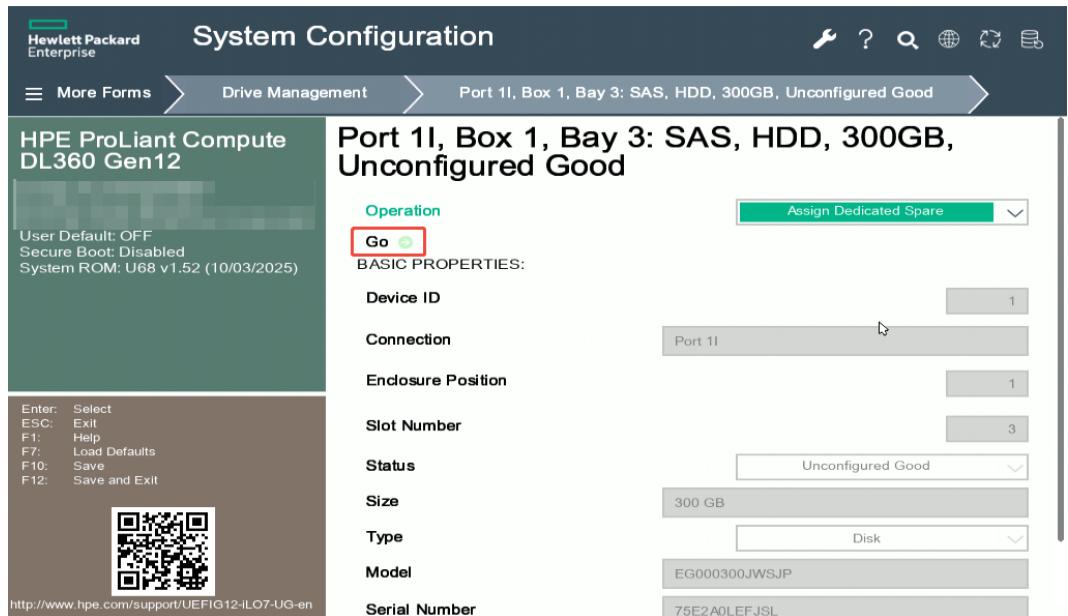
2) 选择一块未配置的硬盘。



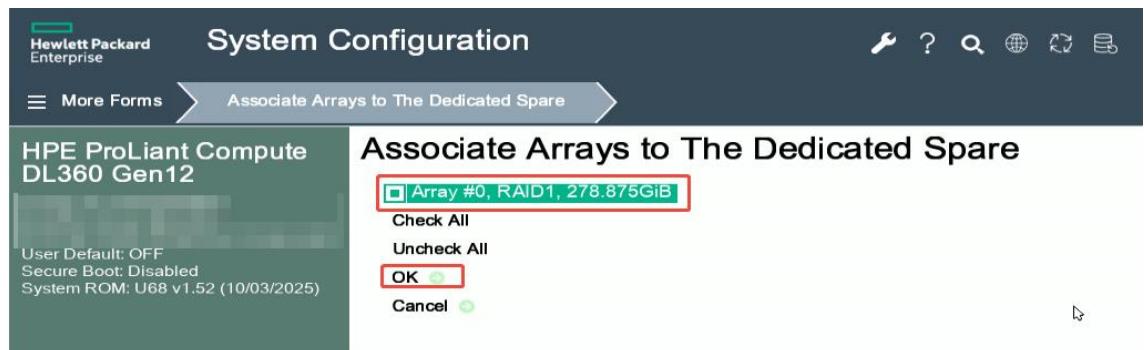
3) 选择 **Operation** 下的 **Assign Dedicated Drive**，即可将此盘配置成专属热备盘。



4) 选择 **Go**。

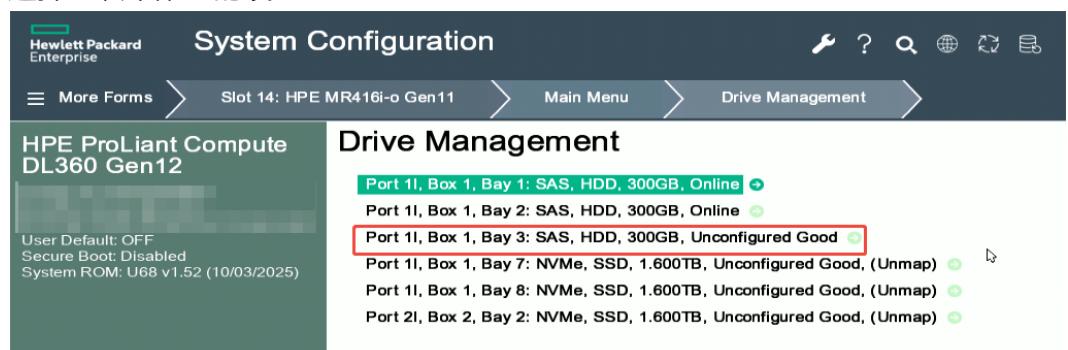


5) 选择要配置热备盘的逻辑卷, 选择 **OK**, 完成配置。

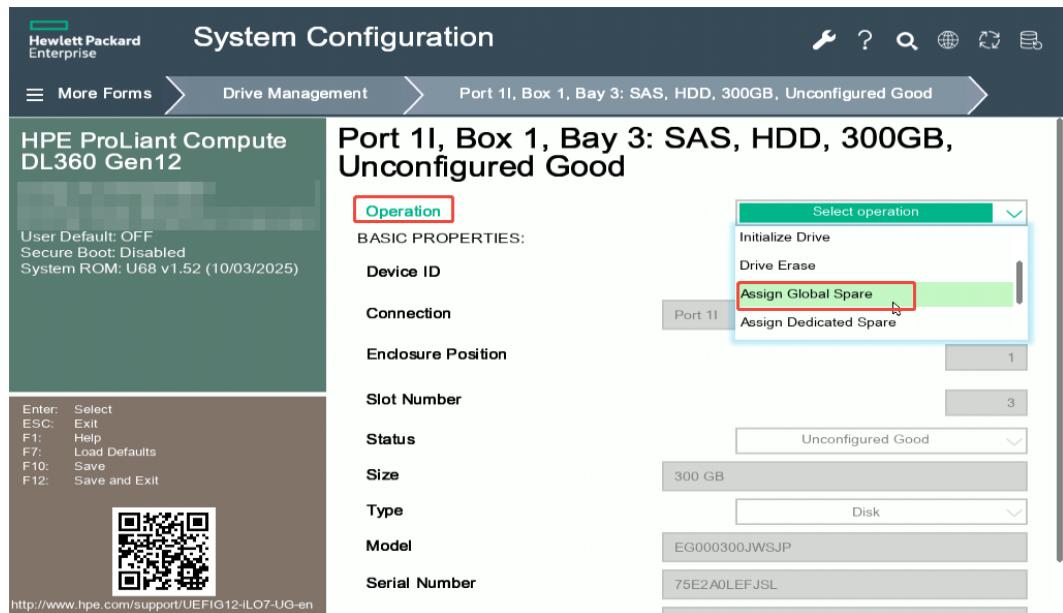


4.1.2 创建全局热备

1) 选择一块未配置的硬盘。



2) 选择 **Assign Global Spare Drive**, 将该硬盘设置为全局热备盘, 选择完成后, 点击 **Go** 完成配置。

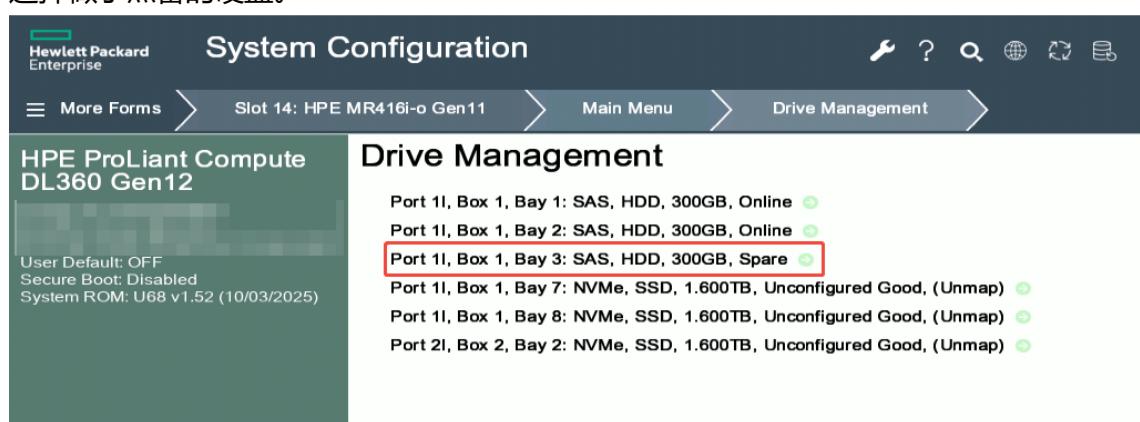


4.2 删除热备

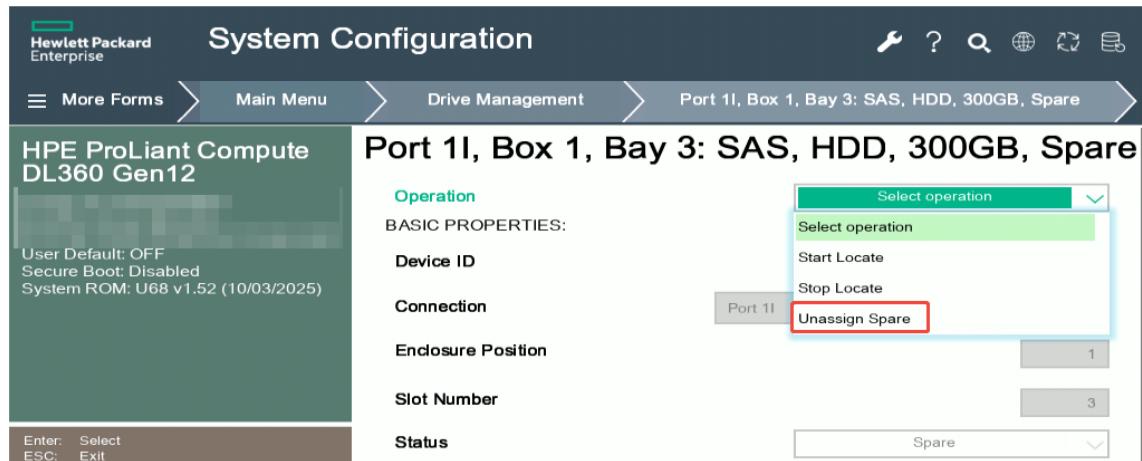
1) 选择 Drive Management。



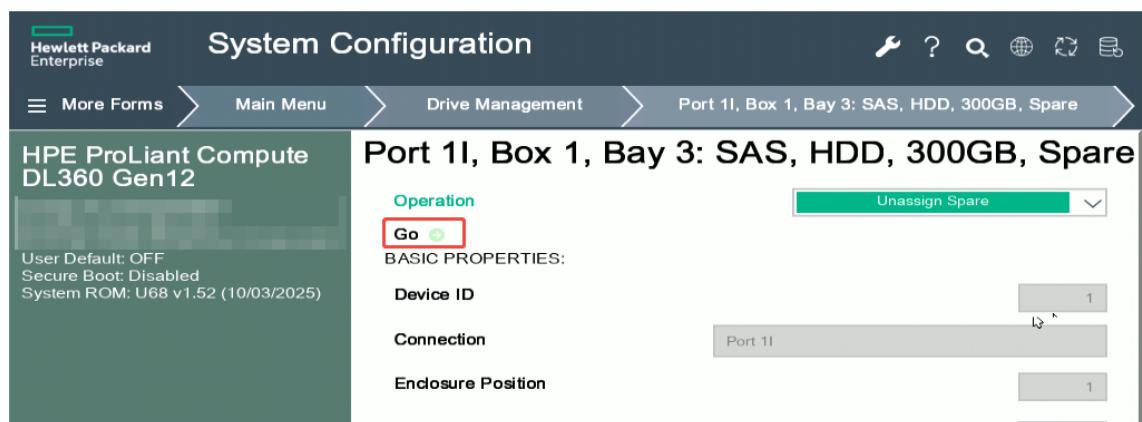
2) 选择做了热备的硬盘。



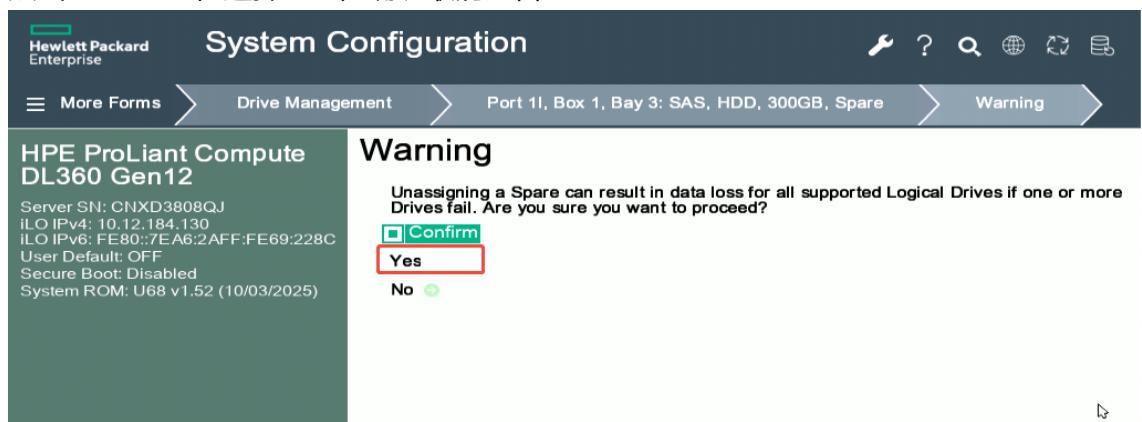
3) 选择 Operation 下的 Unassign Spare 选项。



4) 点击 Go。

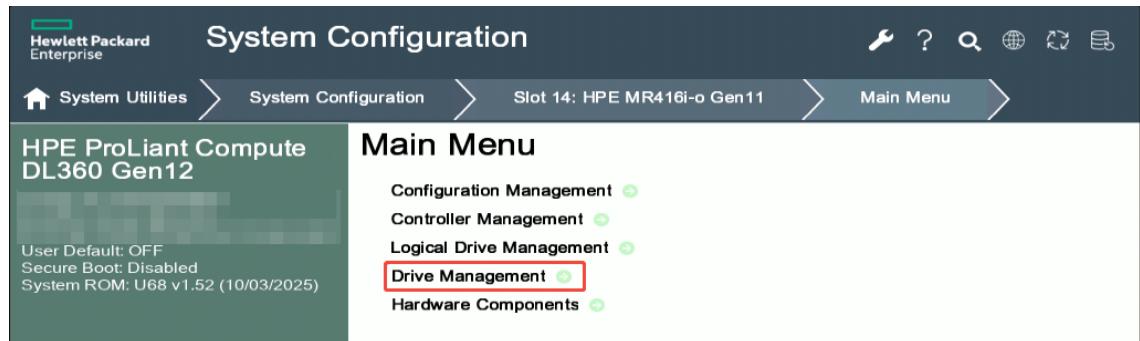


5) 点击 Confirm, 选择 Yes, 确认取消热备。

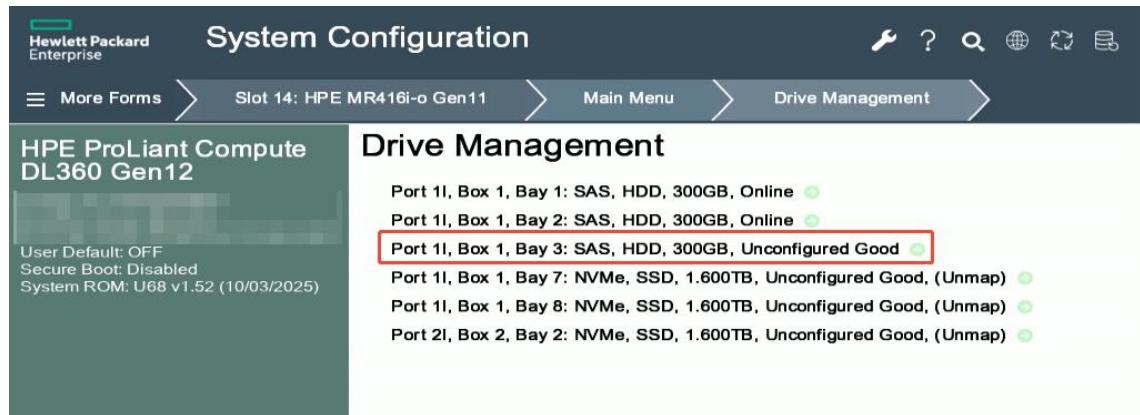


5. 设置与取消直通盘

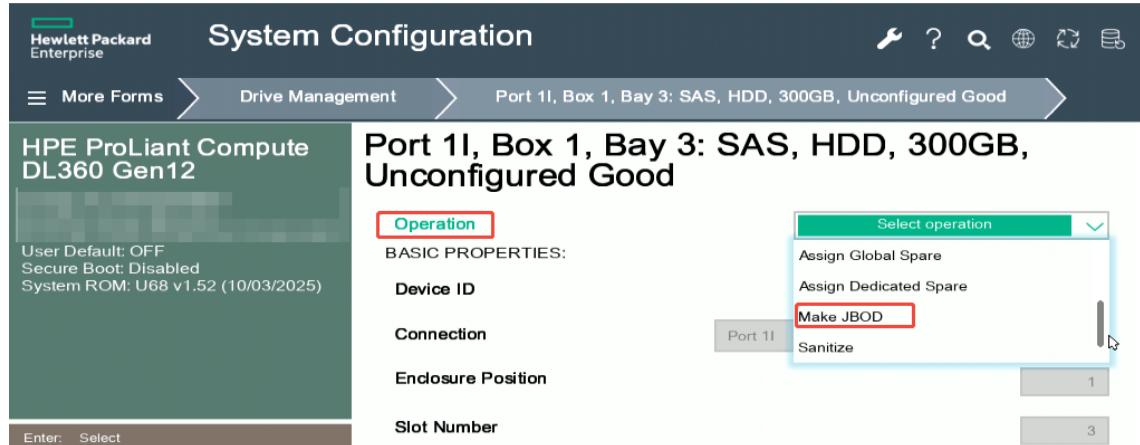
1) 选择 Drive Management。



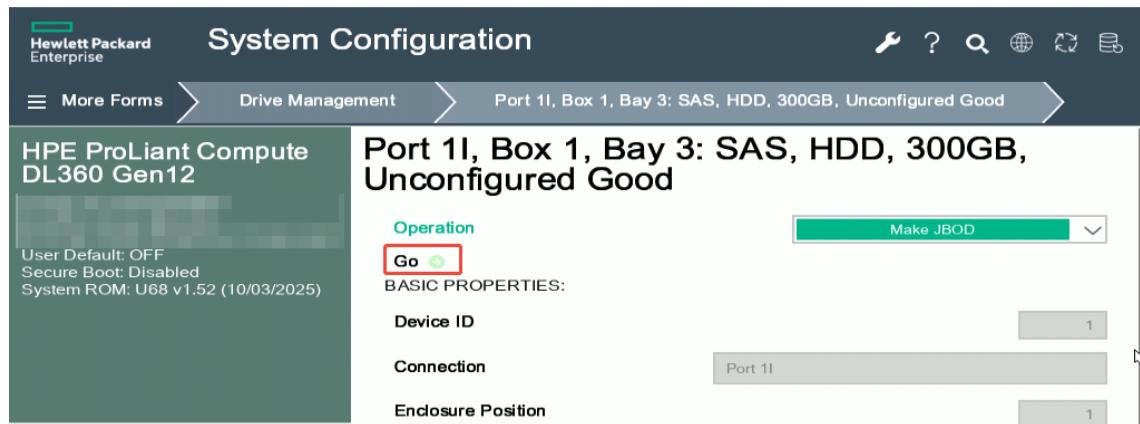
2) 选择一块未配置的硬盘。



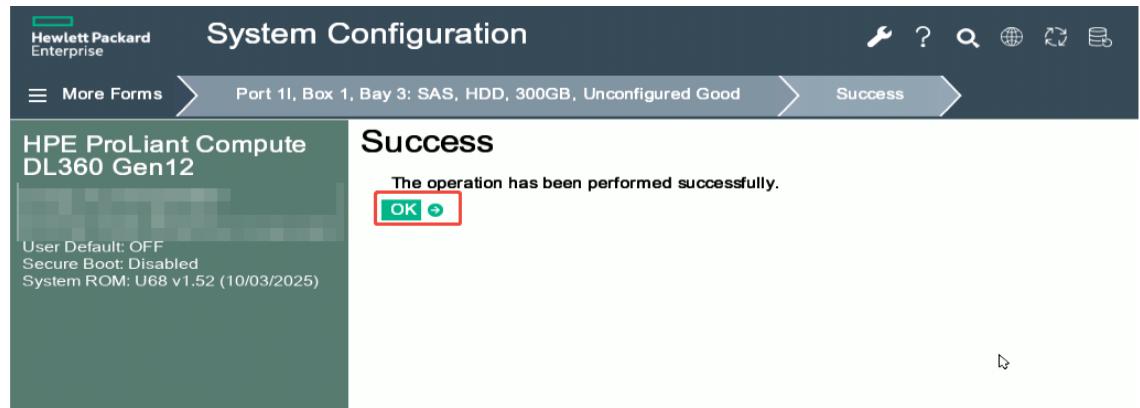
3) 选择 Operation 下的 Make JBOD 选项。



4) 点击 Go。



5) 点击 **OK**。



6) 可以看到这块硬盘已经成功设置为 JBOD 直通盘模式，取消直通过程同理。

