

# HPE Gen8 服务器离线 SSA 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 Gen8 系列服务器离线使用 Smart Storage Administrator 工具配置阵列的方法，并以 DL380p Gen8 服务器为例进行配置步骤说明。
- 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/216337>

### 2. SPP 镜像获取

若通过可引导 U 盘启用 SSA，需要提前准备 SPP。

具体方法请参考：<https://zhiliao.h3c.com/Theme/details/216398>

### 3. USB Key Utility 获取

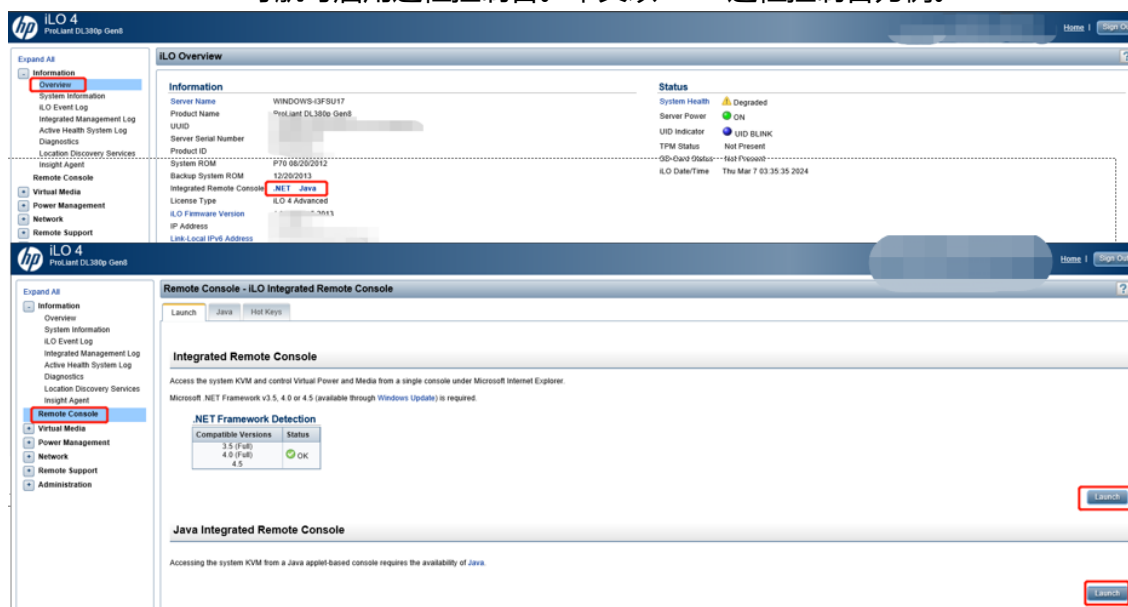
下载链接：[适用于 Windows 的 USB Key Utility | HPE Support](#)

## 三. 配置步骤

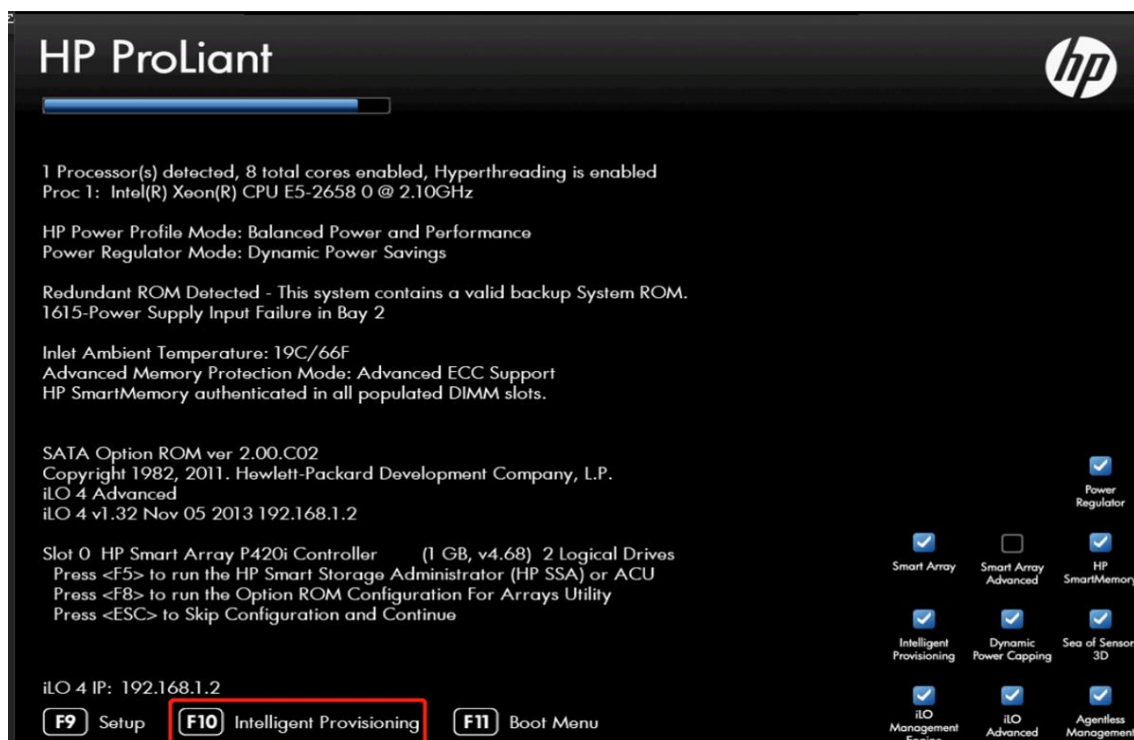
### 1. 启用 Smart Storage Administrator

#### 1.1 通过 iLO 远程控制台启用 SSA

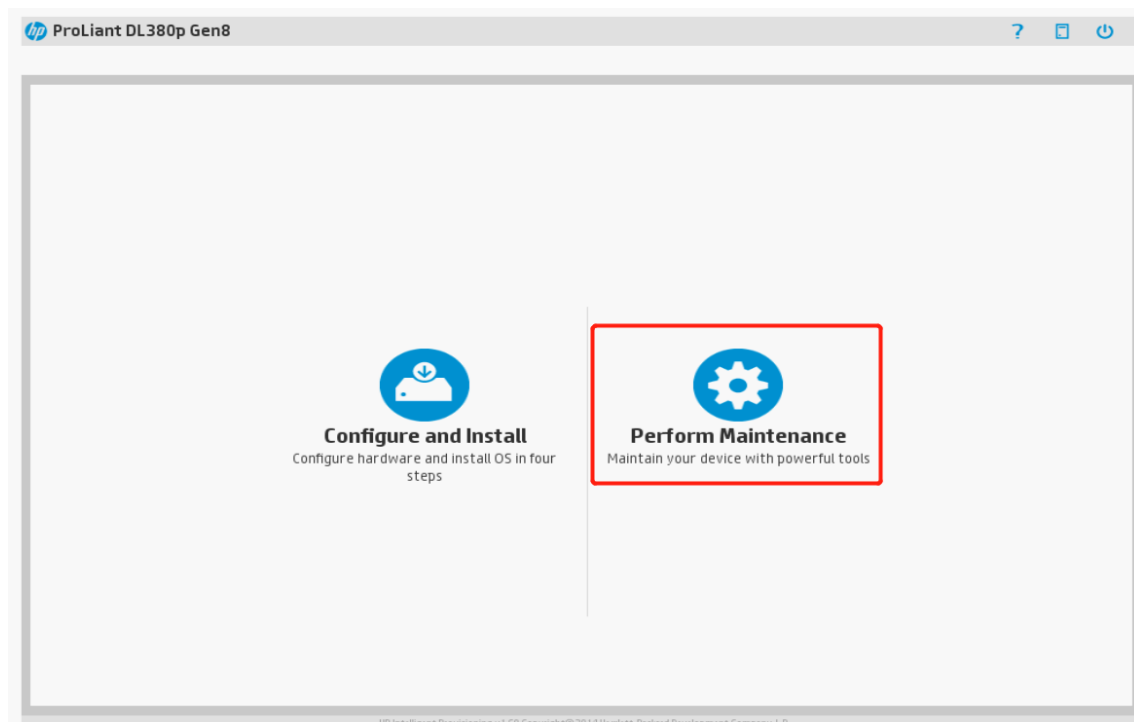
- 1) iLO 4 页面 Information -> Overview 的 Integrated Remote Console 选项，或页面左侧 Remote Console 导航可启用远程控制台。本文以.NET 远程控制台为例。



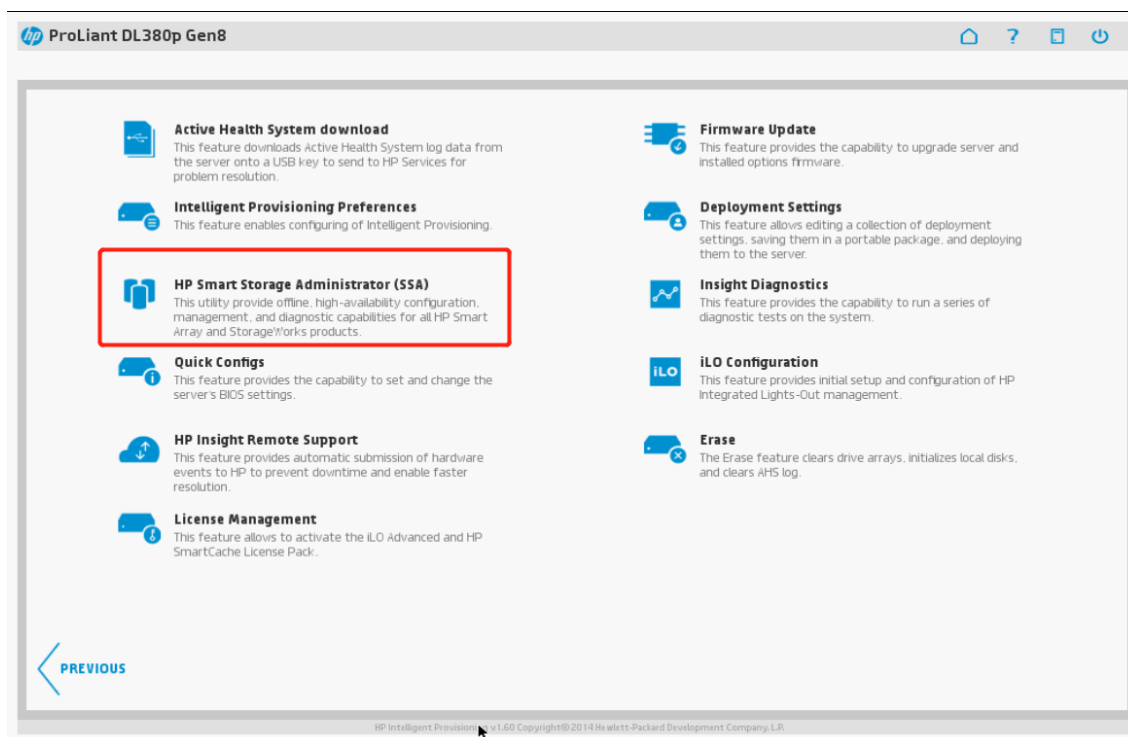
- 2) 重启服务器，自检界面按 **F10**。



3) 选择 Perform Maintenance。



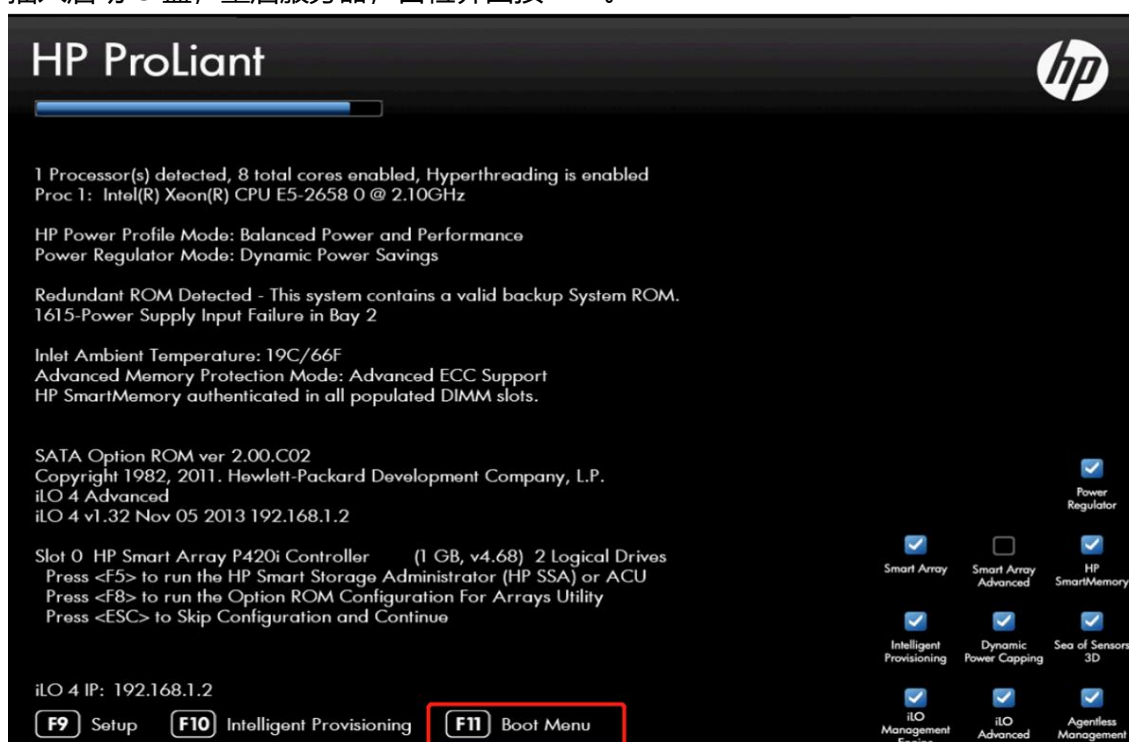
4) 选择 HPE Smart Storage Administrator, 按 **Enter** 进入。



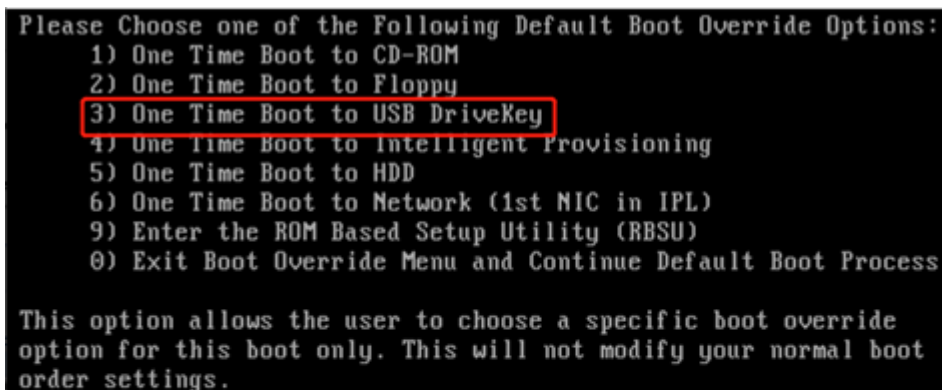
## 1.2 通过可引导 U 盘启用 SSA

注：制作可引导 SSA U 盘的方法请参考附录。

1) 插入启动 U 盘，重启服务器，自检界面按 **F11**。



2) 选择从 USB 启动。



Please Choose one of the Following Default Boot Override Options:

- 1) One Time Boot to CD-ROM
- 2) One Time Boot to Floppy
- 3) One Time Boot to USB DriveKey
- 4) One Time Boot to Intelligent Provisioning
- 5) One Time Boot to HDD
- 6) One Time Boot to Network (1st NIC in IPL)
- 9) Enter the ROM Based Setup Utility (RBSU)
- 0) Exit Boot Override Menu and Continue Default Boot Process

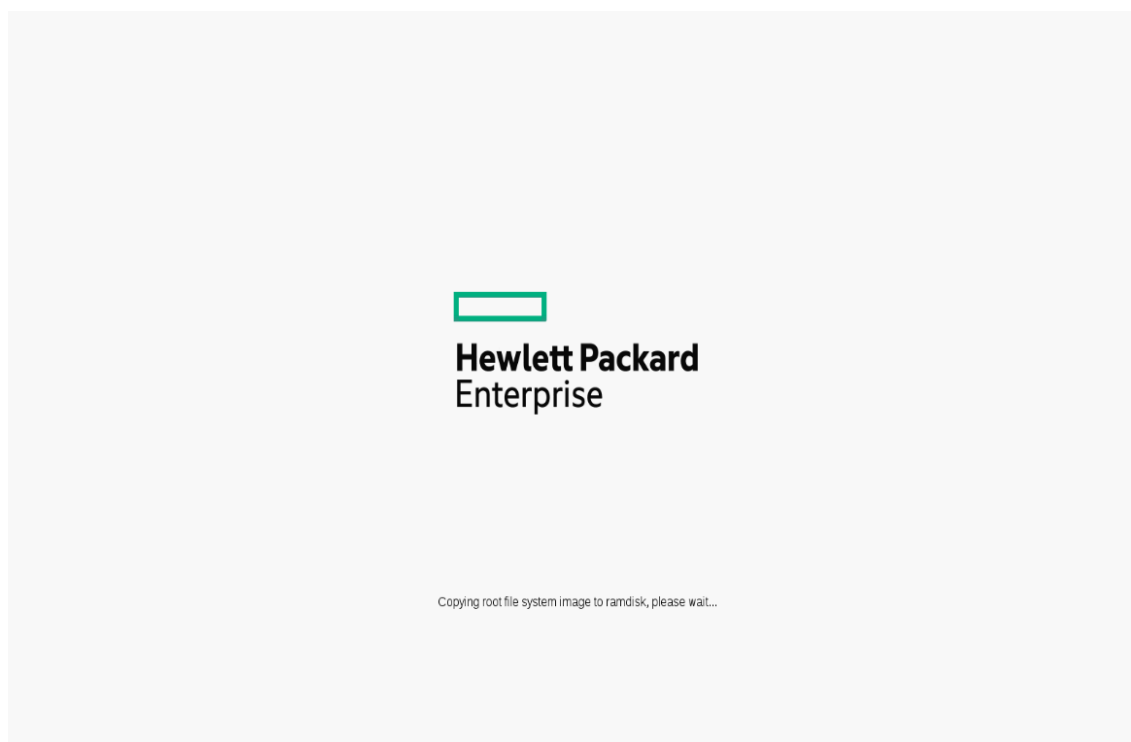
This option allows the user to choose a specific boot override option for this boot only. This will not modify your normal boot order settings.

3) 选择 Interactive 交互式。

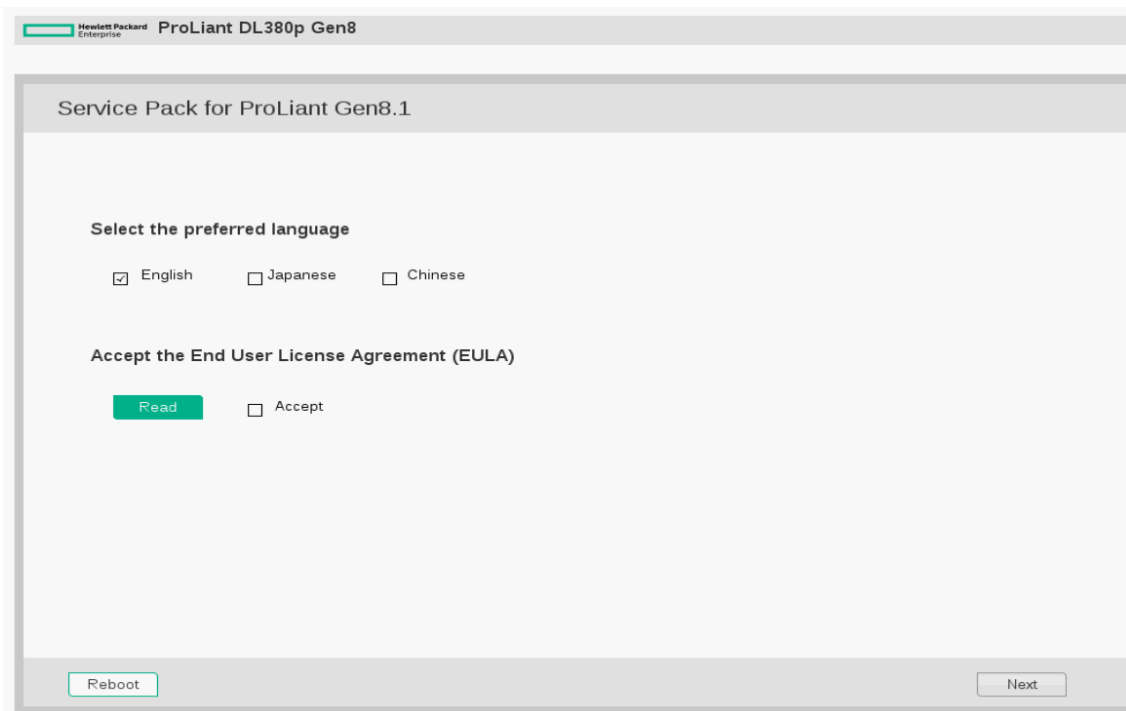


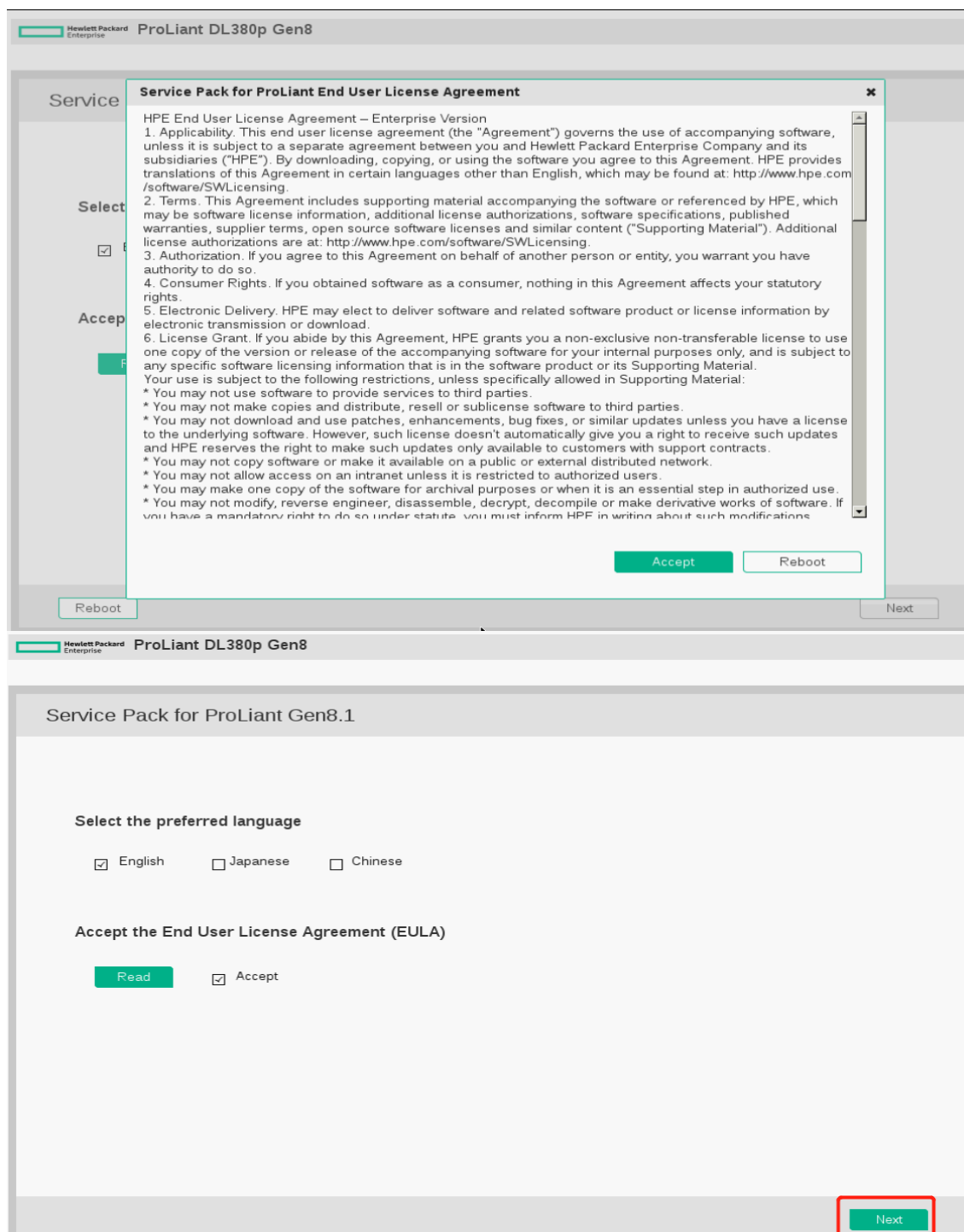
Automatic Firmware Update Version Gen8.1  
Interactive Firmware Update Version Gen8.1

4) 等待加载。

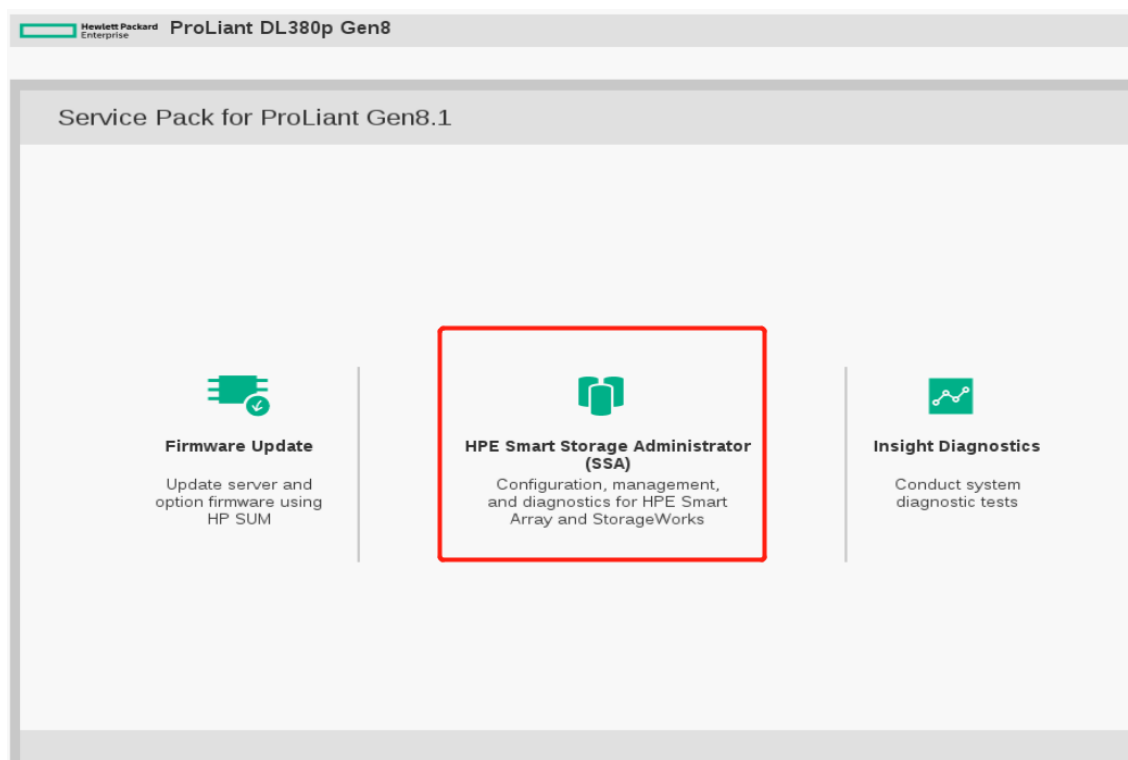


5) 选择语言，接受许可，点击 **Next**。





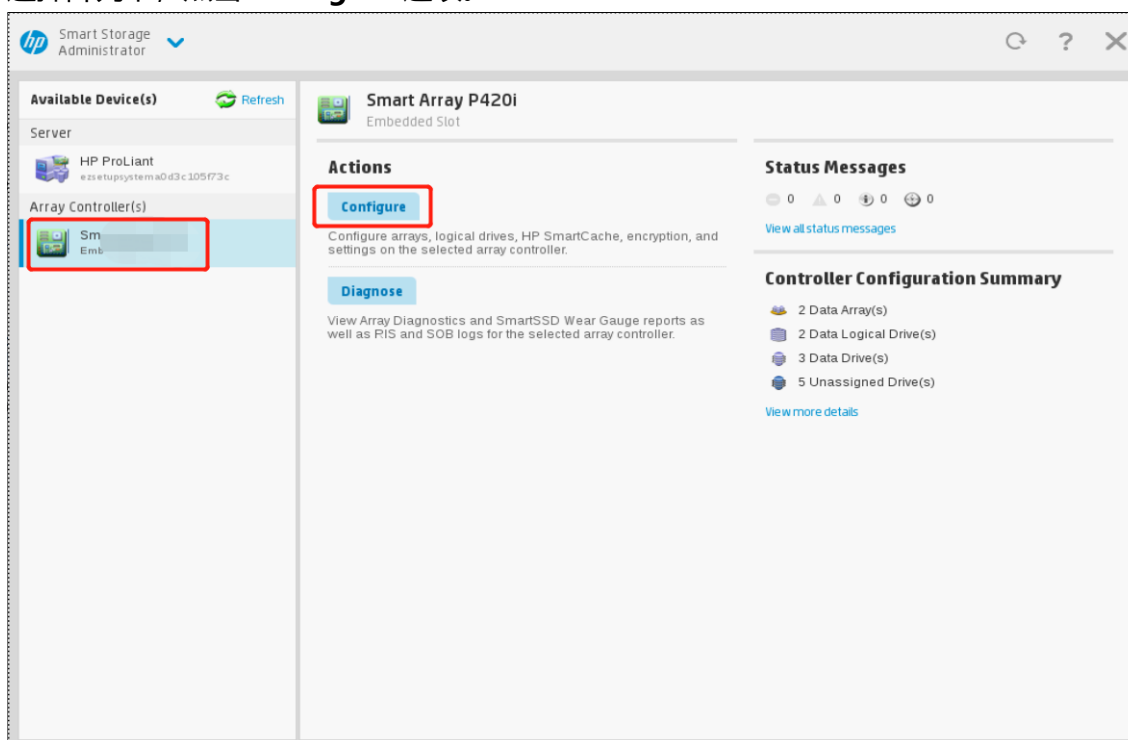
6) 选择中间 SSA。



## 2. 创建与删除阵列

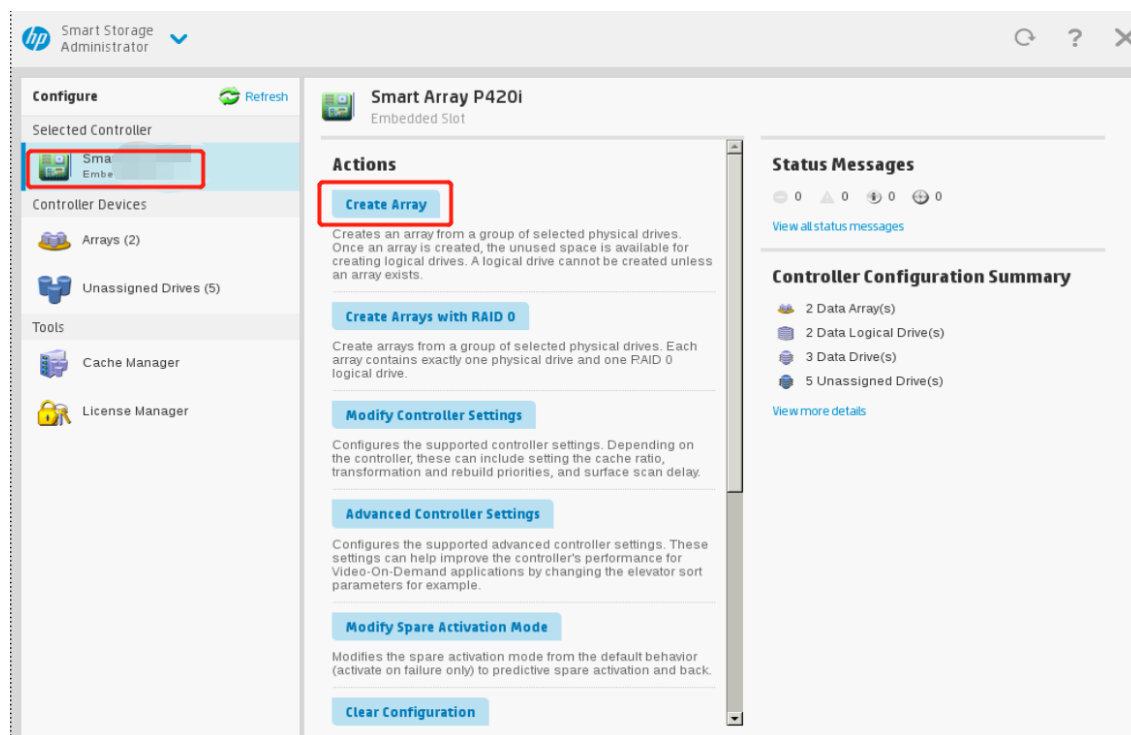
### 2.1 创建阵列

1) 选择阵列卡，点击 **Configure** 选项。

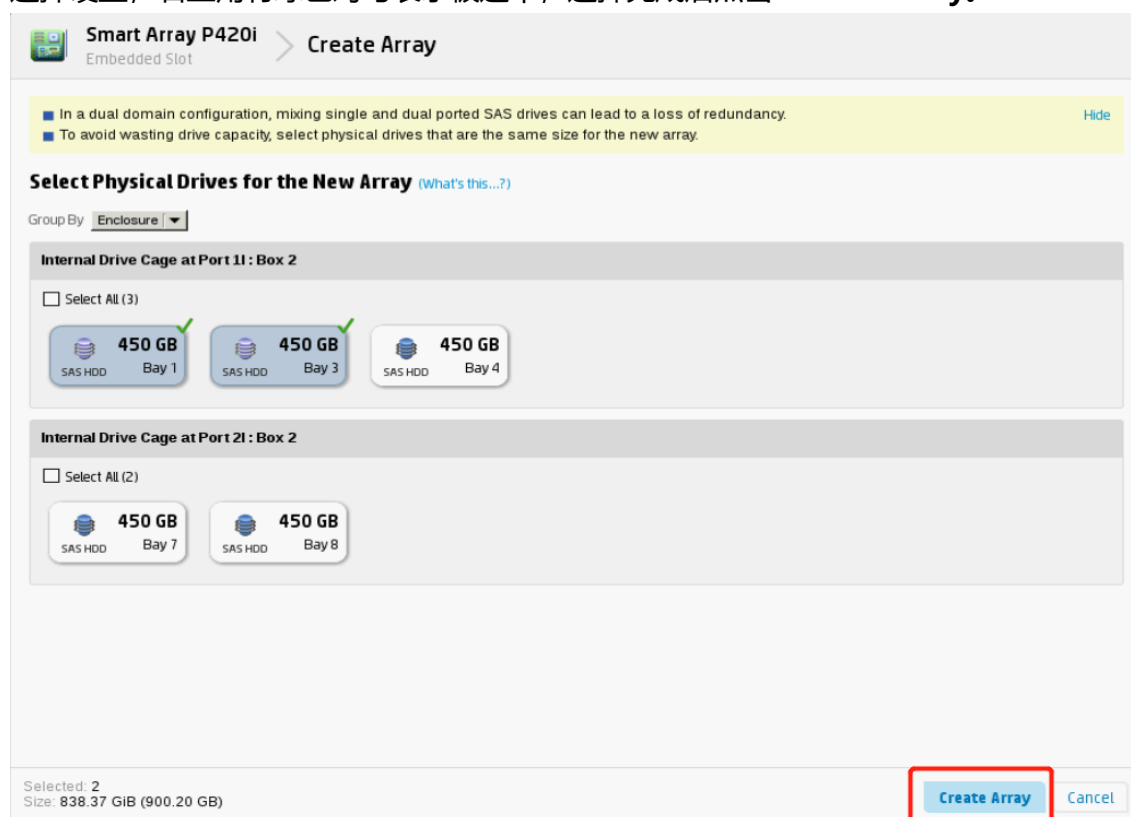


2) 点击 **Create Array** 创建阵列。






3) 选择硬盘，右上角有绿色对勾表示被选中，选择完成后点击 **Create Array**。



4) 选择 RAID Level (阵列级别)、Strip Size/Full Stripe Size (条带大小)、Sectors/Track (扇区大小)、Size (阵列大小) 后点击 **Create Logical Drive** 创建阵列。  
通常只需要设置 RAID Level 及 Size，其他默认即可。

 Smart Array P420i  
Embedded Slot

Create Logical Drive

The size may be automatically adjusted slightly to optimize performance.

Certain operating systems do not support logical drives greater than 502 GiB or boot volumes greater than 2 TiB. Check operating system documentation for details.

Hide

RAID Level (What's this...?)

☐ RAID 0

☒ RAID 1

Strip Size / Full Stripe Size (What's this...?)

☐ 8 KiB / 8 KiB

☐ 16 KiB / 16 KiB

☐ 32 KiB / 32 KiB

☐ 64 KiB / 64 KiB

☐ 128 KiB / 128 KiB

☒ 256 KiB / 256 KiB

☐ 512 KiB / 512 KiB

☐ 1024 KiB / 1024 KiB

Sectors/Track (What's this...?)

☐ 63

☒ 32

Size (What's this...?)

☒ Maximum Size: 429215 MiB (419.1 GiB)

☐ Custom Size

Caching (What's this...?)


☒ Enabled

☐ Disabled

Create Logical Drive

Cancel

5) 阵列创建完毕，点击 **Finish**。

 Smart Array P420i  
Embedded Slot

Create Logical Drive

Logical Drive was successfully created. Please choose one of the actions below.

Array Details

Status	OK
Used Space	838.3 GiB (100.0%)
Total Usable Space	838.3 GiB
Acceleration Mode	Independent: Caching can be enabled or disabled for each individual logical drive

Logical Drives

Logical Drive 3	419.16 GiB (450.06 GB)
-----------------	------------------------

Physical Drives

450 GB SAS HDD at Port 11 : Box 2 : Bay 1
450 GB SAS HDD at Port 11 : Box 2 : Bay 3

Device Path

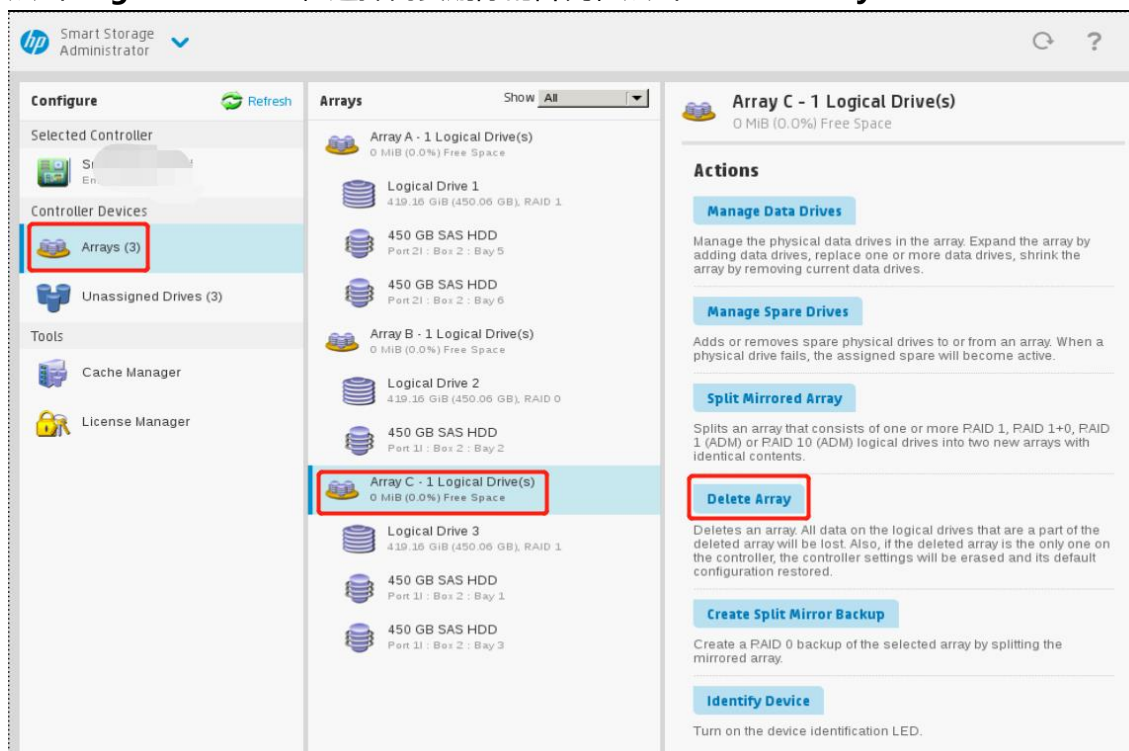
Smart Array P420i in Embedded Slot
------------------------------------

Manage Spare Drives

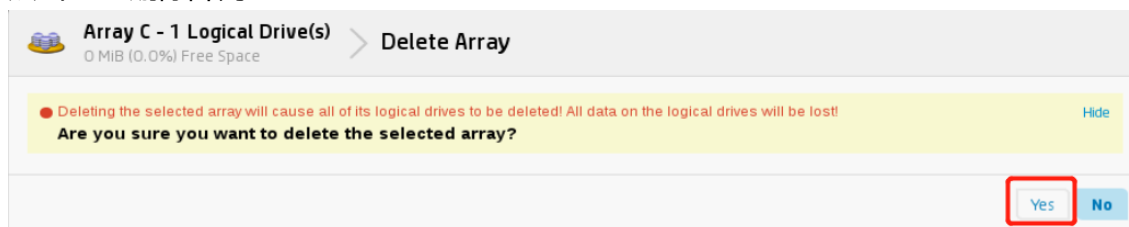
Finish

2.2 删除阵列

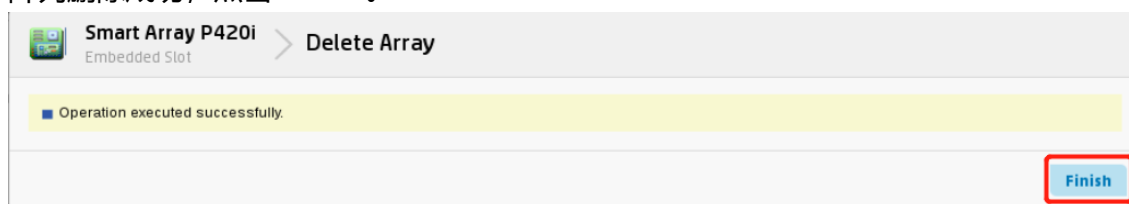
1) 点击 **Logical Devices**，选择需要删除的阵列，点击 **Delete Array**。



2) 点击 **Yes** 删除阵列。

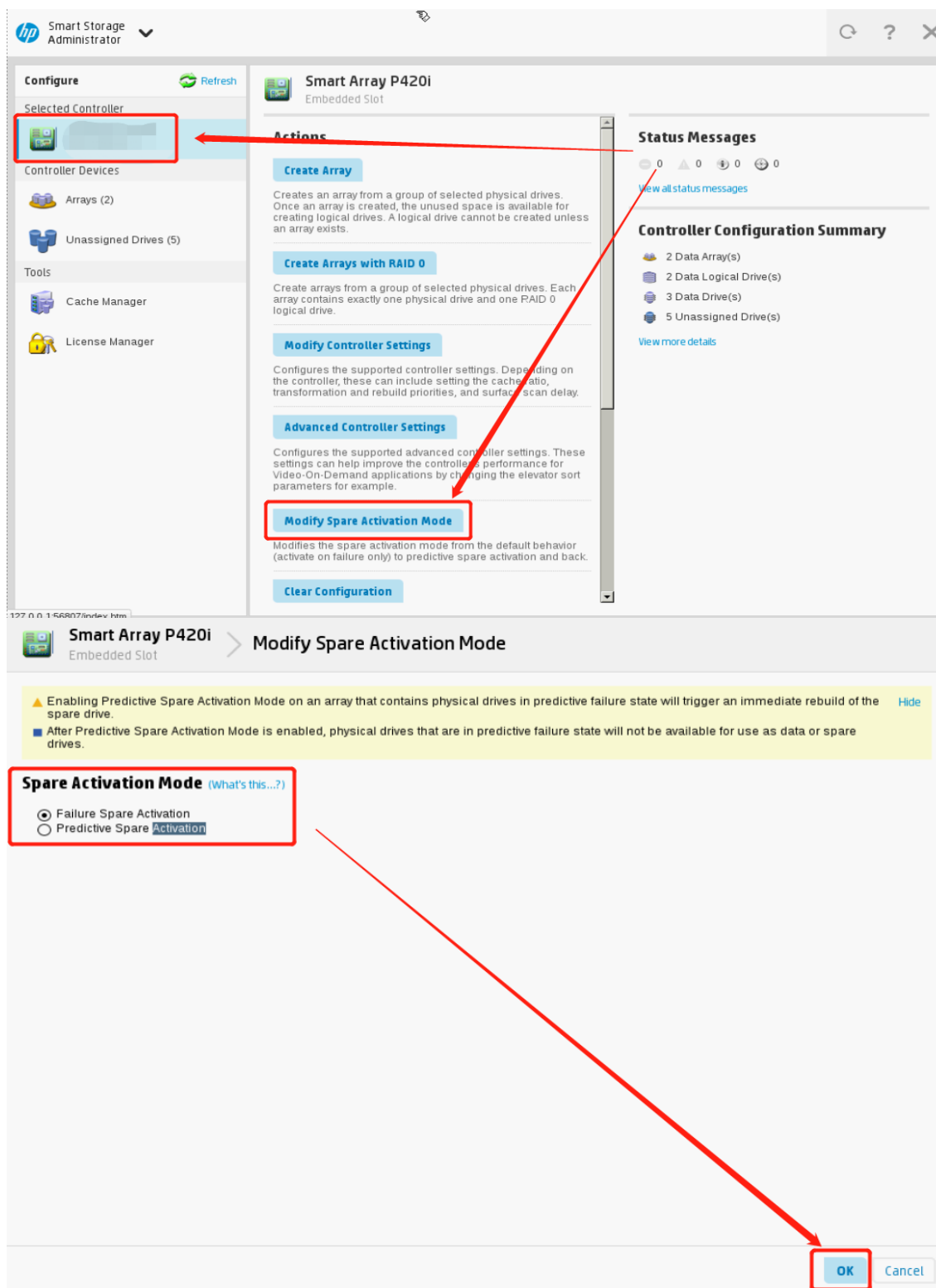


3) 阵列删除成功，点击 **Finish**。



3. 创建与删除热备

- 确认热备盘激活模式，故障时激活或预测故障时激活，其中 raid0 只能选择预测故障时激活。



两种模式热备盘区别：

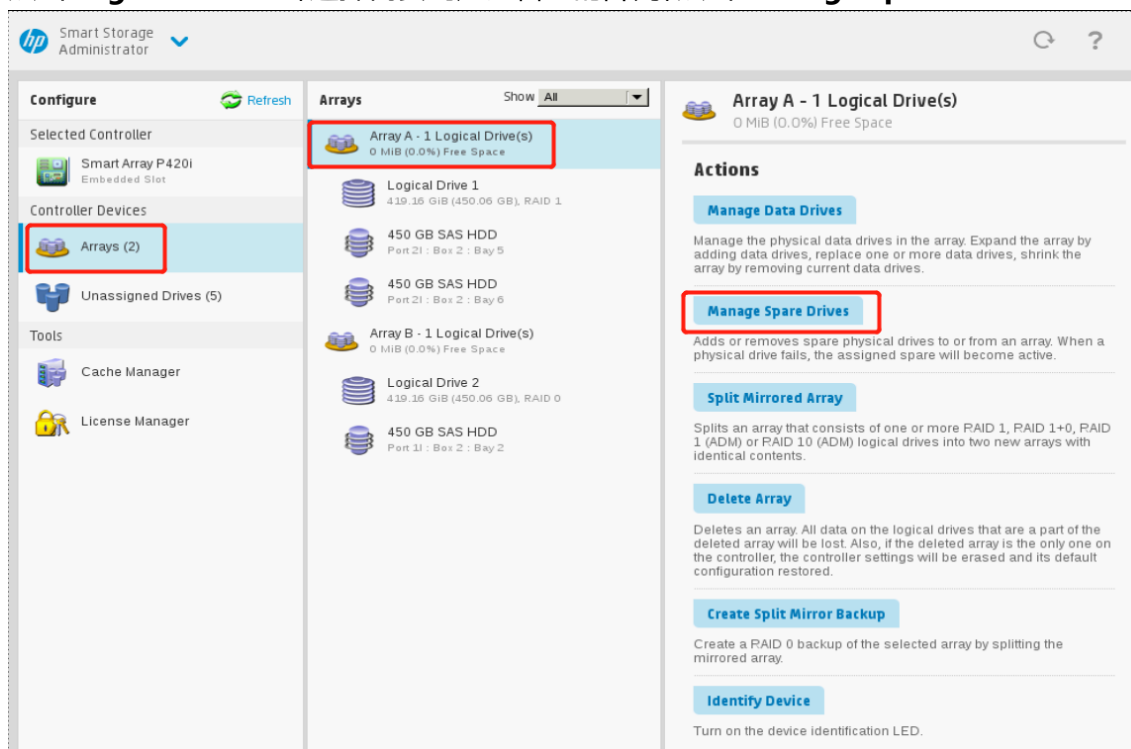
**Dedicated (专用)：**在更换发生故障的数据驱动器时，必须使用备用驱动器上的数据进行重建。在专用模式下，一个备用驱动器可以专用于多个阵列。

**Auto-Replace Drives (自动更换驱动器)**：发生故障的数据驱动器的备用驱动器自动变为更换数据驱动器。当更换备用驱动器时，数据驱动器不需要重建。在自动更换模式下，备用驱动器无法在阵列之间共享。

### 3.1 创建热备

#### 3.1.1 创建专用热备

1) 点击 **Logical Devices**, 选择需要创建热备盘的阵列, 点击 **Manage Spare Drives**。



2) 勾选要配置成热备盘的磁盘，选择 **Dedicated** 热备模式，点击 **Save** 保存。

Array A - 1 Logical Drive(s)  
0 MiB (0.0%) Free Space

Manage Spare Drives

In a dual domain configuration, mixing single and dual ported SAS drives can lead to a loss of redundancy.

To avoid wasting drive capacity, select physical drives that are same size as the existing drives in the array.

Hide

Spare Drive Type (What's this...?)

☒ Dedicated Spare Drives. Drives designated as spares can only be used as spare drives.

☐ Auto Replace Drives. When activated, selected drives will automatically become part of the array.

Add/Remove Spare Drives (What's this...?)

Group By 

Enclosure

Internal Drive Cage at Port 1I : Box 2

☐ Select All (3)

450 GB

SAS HDD

Bay 1

450 GB

SAS HDD

Bay 3

450 GB

SAS HDD

Bay 4

Internal Drive Cage at Port 2I : Box 2

☐ Select All (2)

450 GB

SAS HDD

Bay 7

450 GB

SAS HDD

Bay 8

Status: OK

Size: 419.19 GiB (450.10 GB)

Save

Cancel

3) 点击 **Finish** 退出完成热备。

Array A with Spare - 1 Logical Drive(s)  
0 MiB (0.0%) Free Space

Manage Spare Drives

Spare configuration saved.

Array Details

Status

OK

Used Space

838.3 GiB (100.0%)

Total Usable Space

838.3 GiB

Spare Drive Type

Dedicated Spare Drives. Drives designated as spares can only be used as spare drives.

Acceleration Mode

Independent Caching can be enabled or disabled for each individual logical drive

Logical Drives

Logical Drive 1

419.16 GiB (450.06 GB)

Physical Drives

450 GB SAS HDD at Port 2I : Box 2 : Bay 5

450 GB SAS HDD at Port 2I : Box 2 : Bay 6

Spare Drives

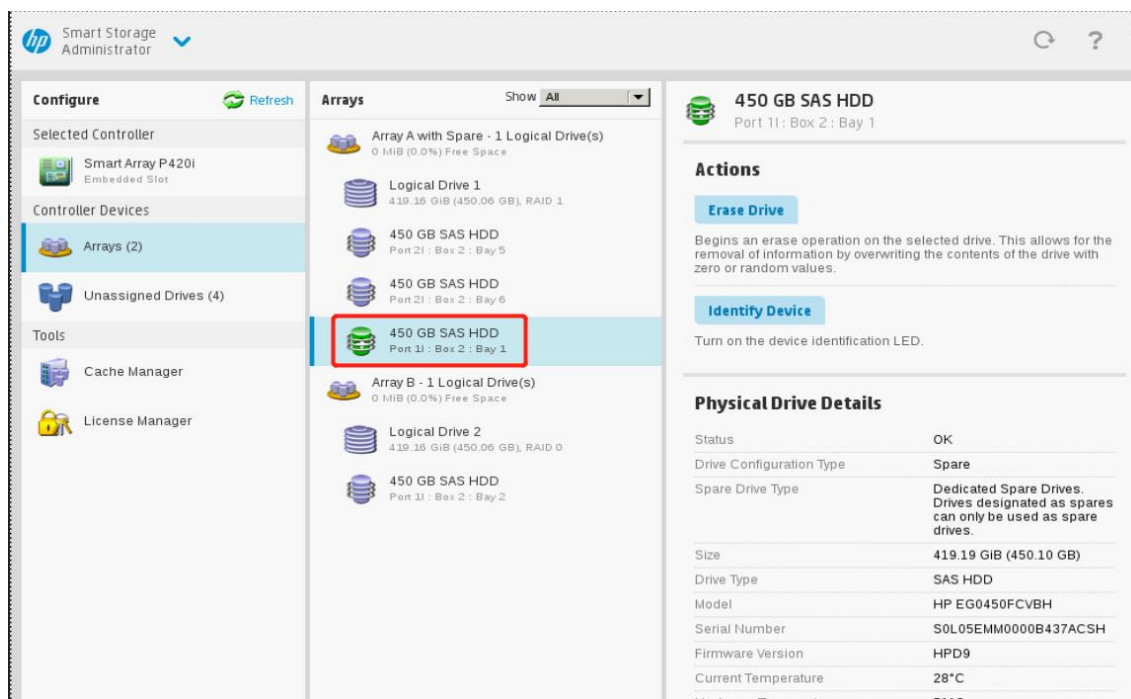
450 GB SAS HDD at Port 1I : Box 2 : Bay 1

Device Path

Smart Array P420i in Embedded Slot

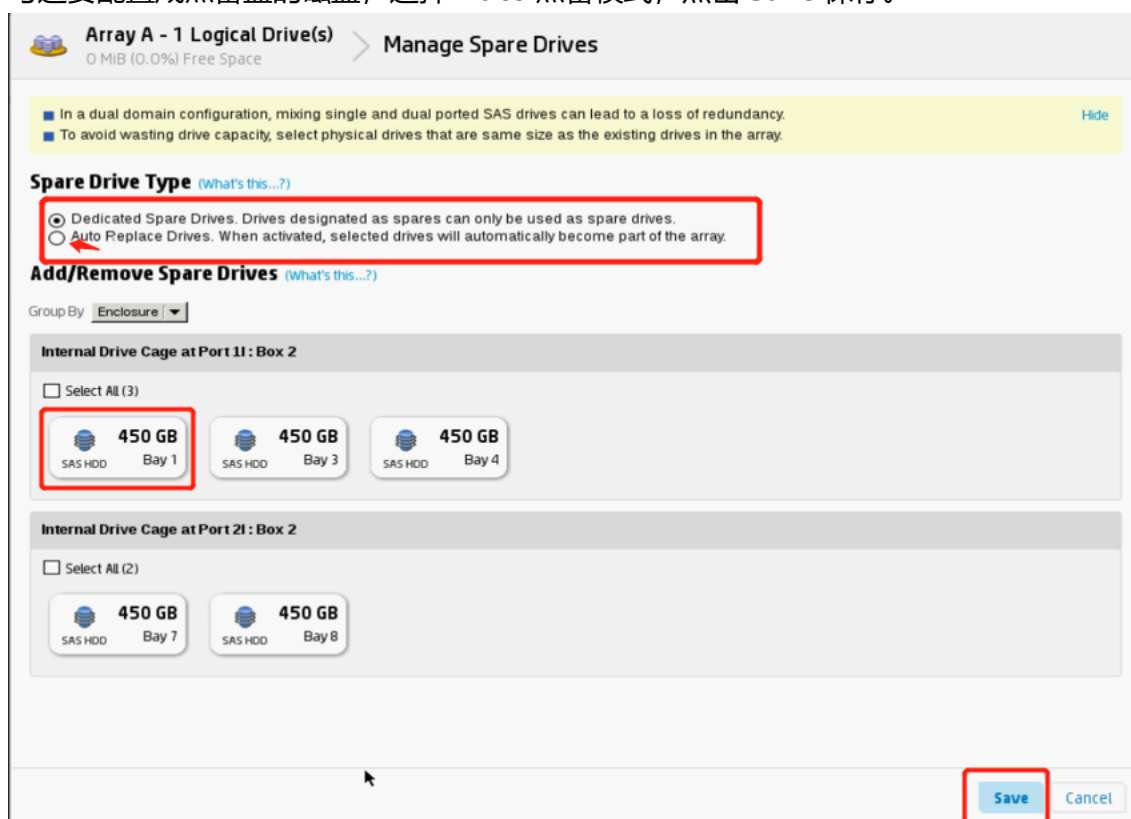
Manage Spare Drives

Finish



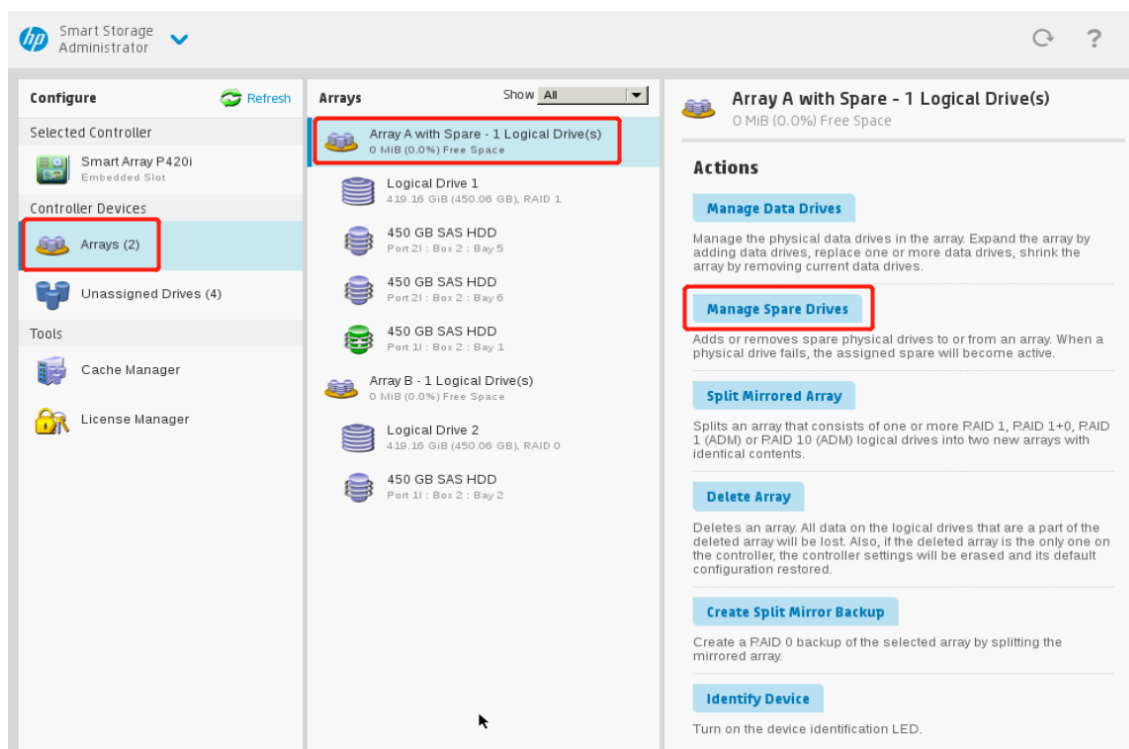
### 3.1.2 创建自动替换热备

- 1) 勾选要配置成热备盘的磁盘，选择 **Auto** 热备模式，点击 **Save** 保存。

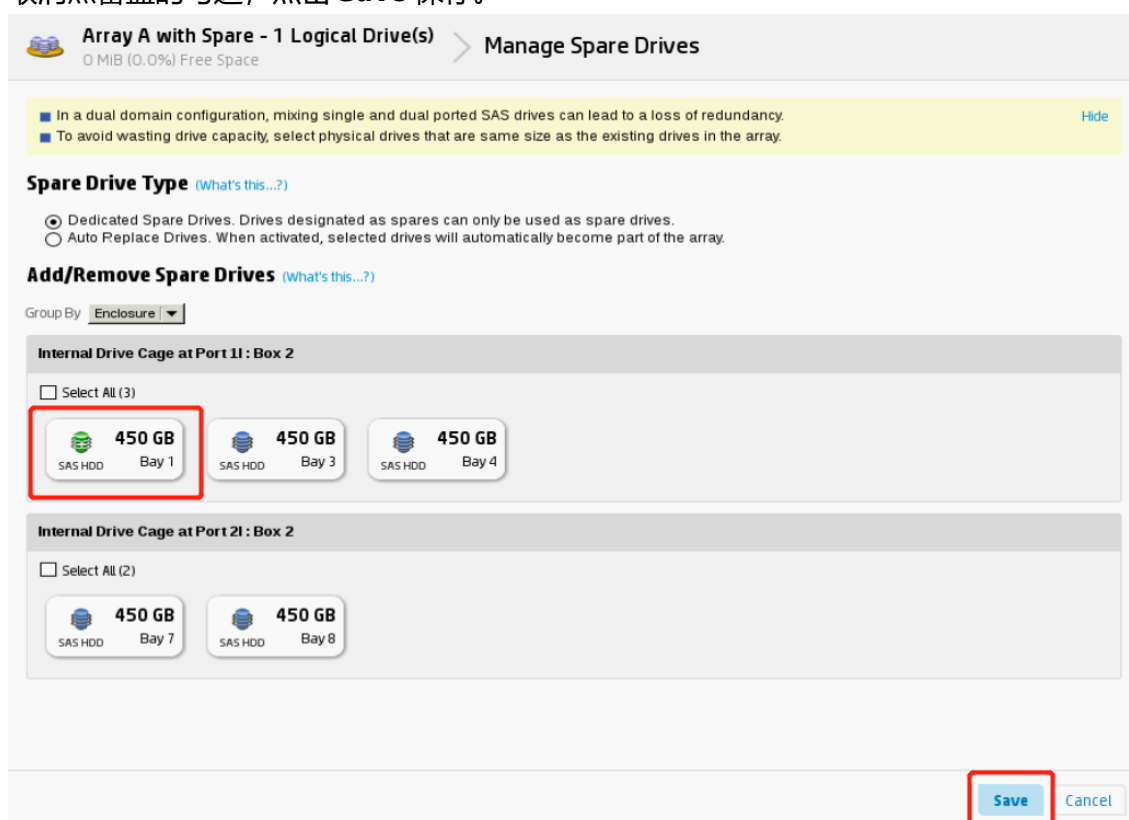


### 3.2 删除热备

- 1) 选择需要删除热备盘的阵列，点击右侧的 **Manage Spare Drives** 选项。




2) 取消热备盘的勾选，点击 **Save** 保存。



3) 点击 **Finish** 完成删除。





Array A - 1 Logical Drive(s)

0 MiB (0.0%) Free Space

Manage Spare Drives

Spare configuration saved.

Array Details

Status	OK
Used Space	838.3 GiB (100.0%)
Total Usable Space	838.3 GiB
Acceleration Mode	Independent: Caching can be enabled or disabled for each individual logical drive

Logical Drives

Logical Drive 1	419.16 GiB (450.06 GB)
-----------------	------------------------

Physical Drives

450 GB SAS HDD at Port 2I : Box 2 : Bay 5
450 GB SAS HDD at Port 2I : Box 2 : Bay 6

Device Path

Smart Array P420i in Embedded Slot

Manage Spare Drives

Finish

## 附录：通过 USB Key Utility 制作可引导 SSA U 盘

1) HPE 官网下载 USB KEY 工具。


[https://support.hpe.com/hpesc/public/swd/detail?swItemId=MTX\\_360731071b404454b454390208](https://support.hpe.com/hpesc/public/swd/detail?swItemId=MTX_360731071b404454b454390208)

### Drivers & software

#### USB Key Utility for Windows

By downloading, you agree to the terms and conditions of the [Hewlett Packard Enterprise Software License Agreement](#).

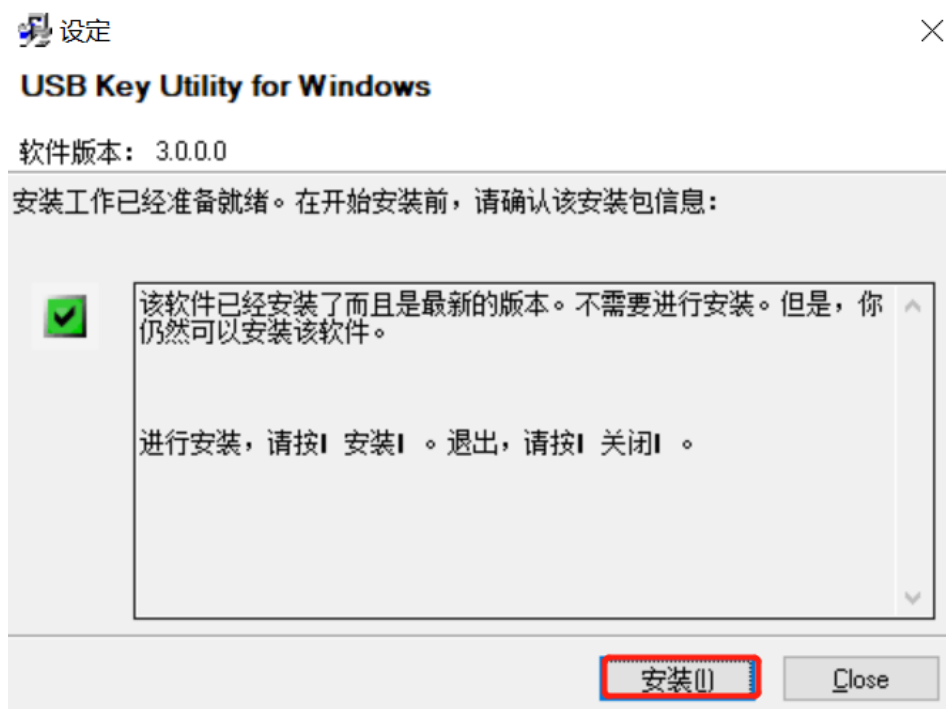
**Note:** Some software requires a valid warranty, current Hewlett Packard Enterprise support contract, or a license fee.

Type:	Utility - Tools
Version:	3.0.0.0 (12 Jul 2017)
Upgrade Requirement:	Optional 
Operating System(s):	Microsoft Windows 10 (64-bit) Microsoft Windows 7 (64-bit) Microsoft Windows 7 Enterprise (64-bit) Microsoft Windows 7 Professional (64-bit) Microsoft Windows 8 (64-bit) Microsoft Windows 8.1 (64-bit) Microsoft Windows HPC Server 2008 R2 Microsoft Windows Server 2008 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2012 Essentials Microsoft Windows Server 2012 R2 Microsoft Windows Server 2016 Microsoft Windows Storage Server 2008 R2 Microsoft Windows Storage Server 2008 x64 Editions Microsoft Windows Storage Server 2012 Microsoft Windows Storage Server 2012 R2
File name:	cp029814.exe (3.1 MB)

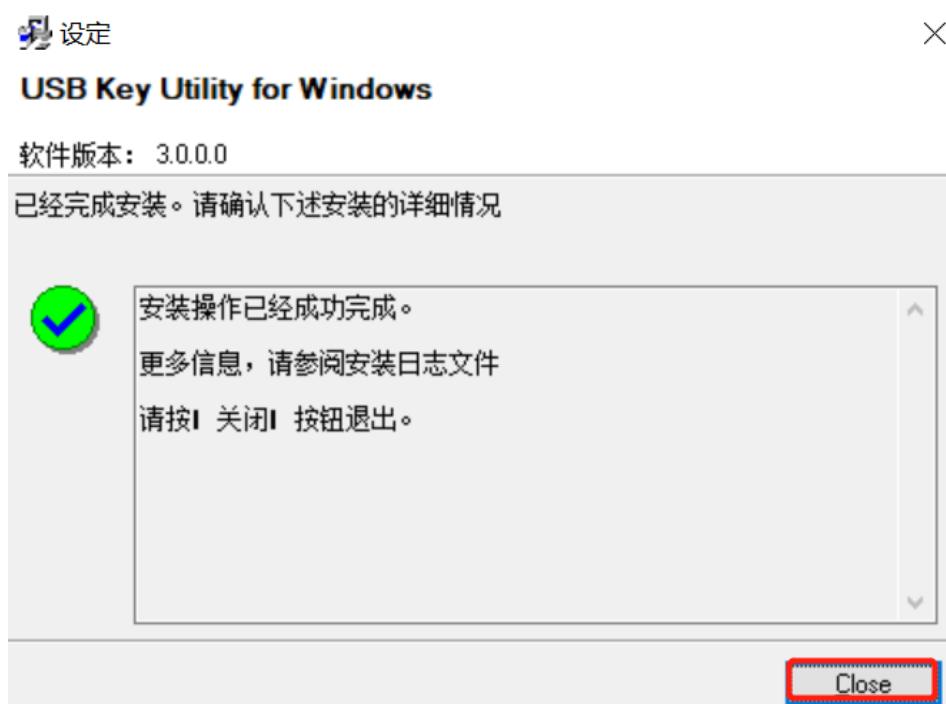
Download

2) 双击.exe 包，点击**安装**。

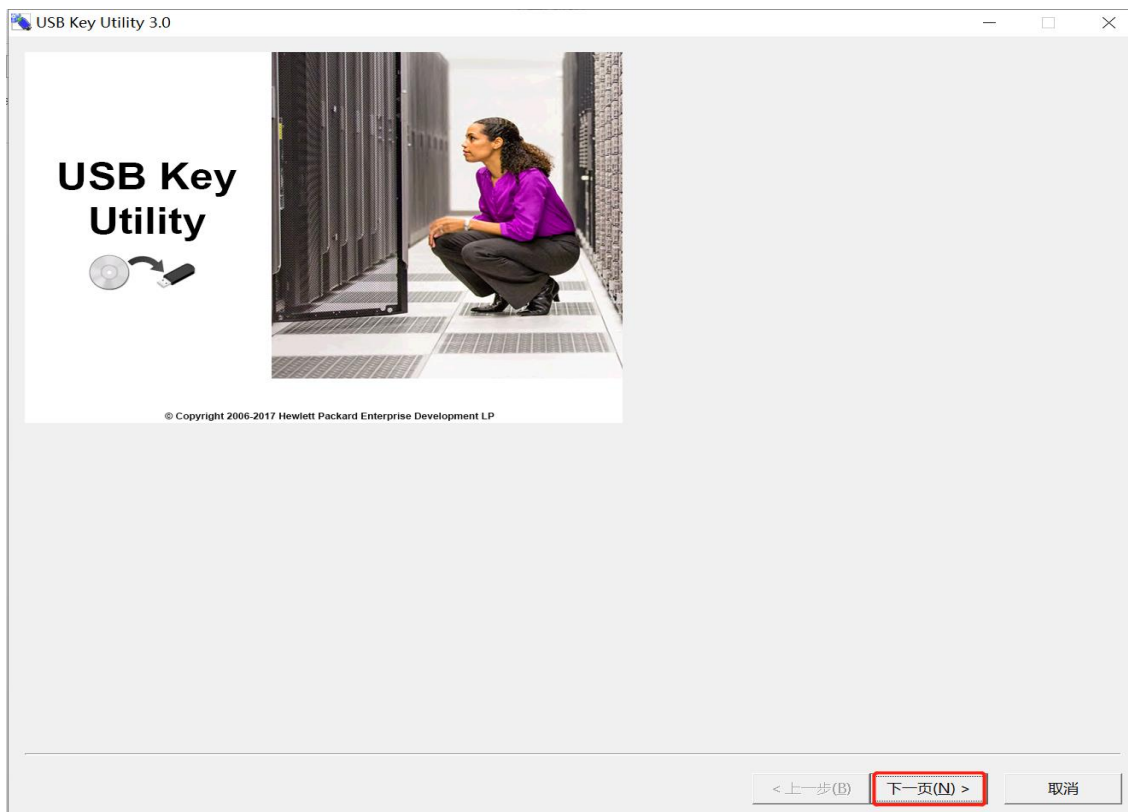




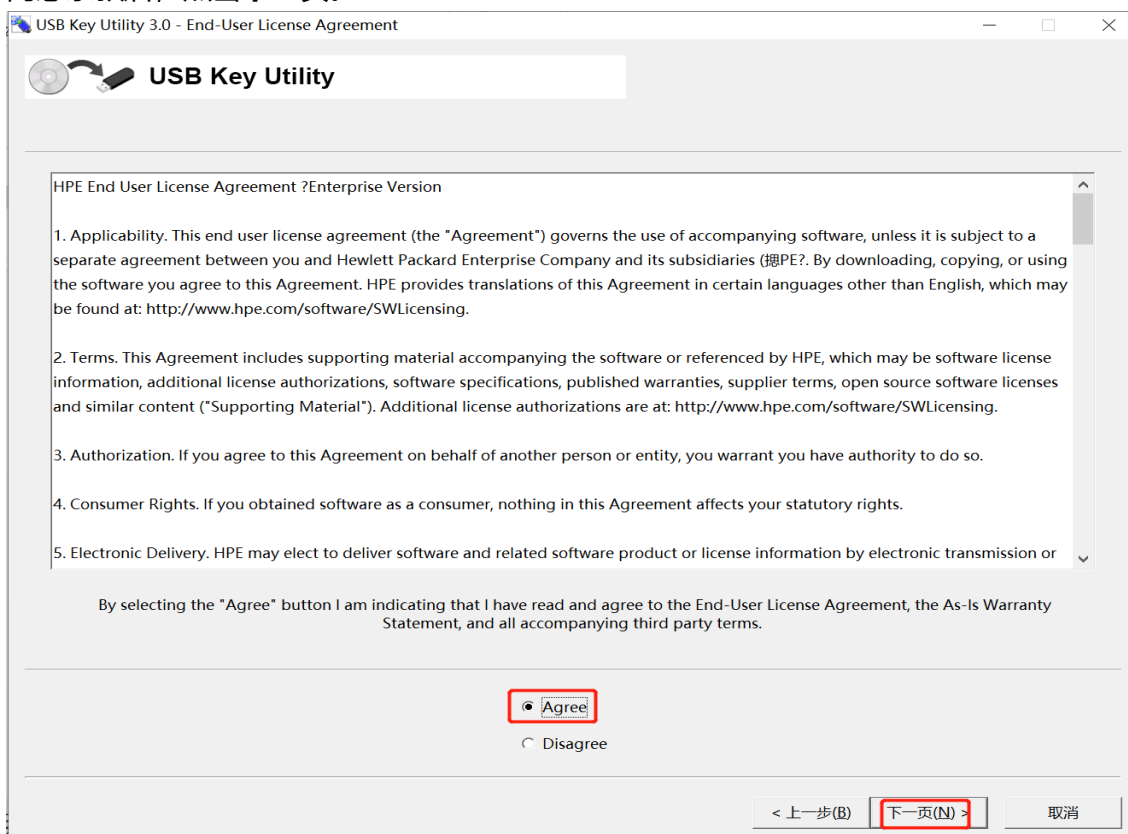
点击 **Close**。



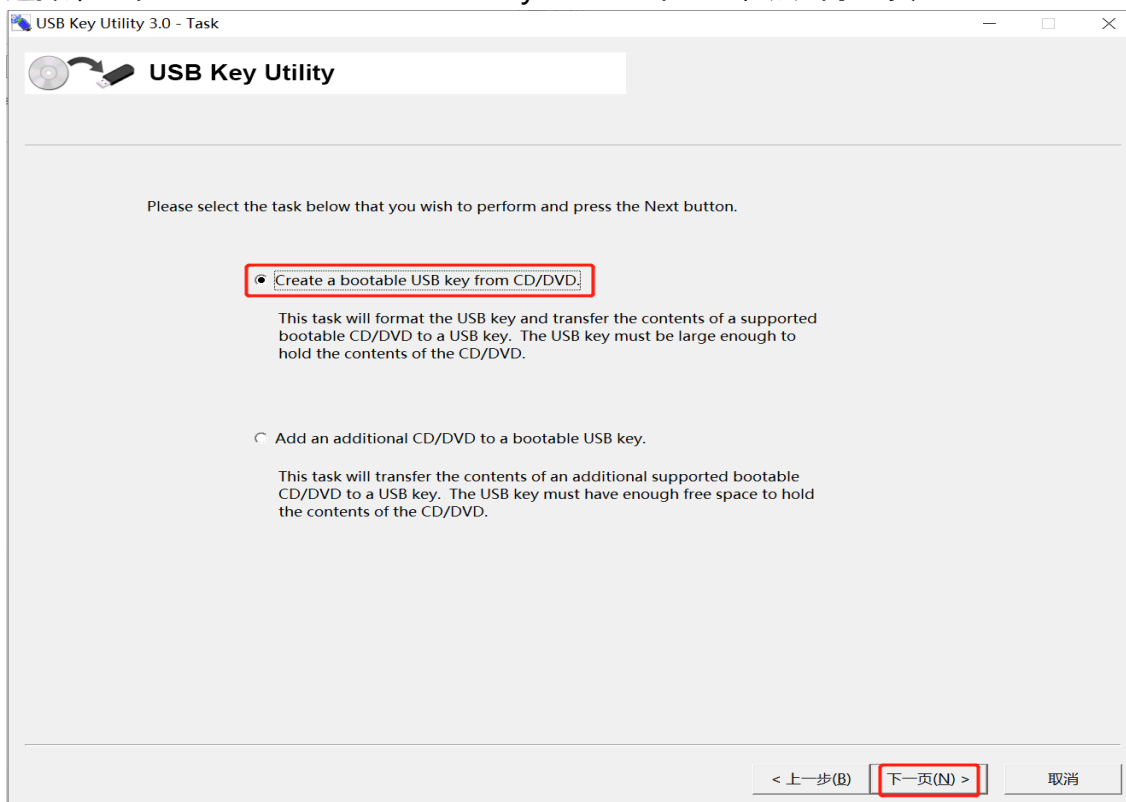
3) 找到下载好的工具，打开点击**下一页**。



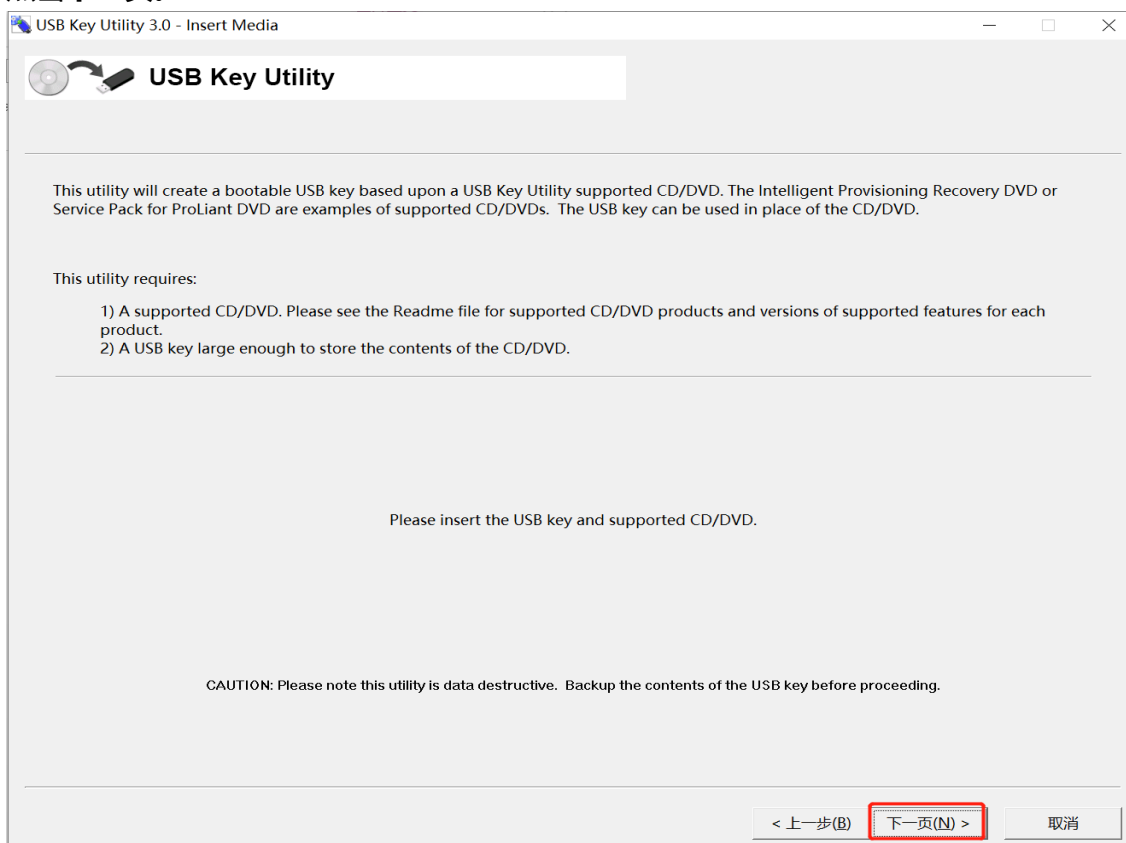
#### 4) 同意条款后，点击下一页。



5) 选择第一个 Create a bootable USB Key from CD/DVD，点击下一页。



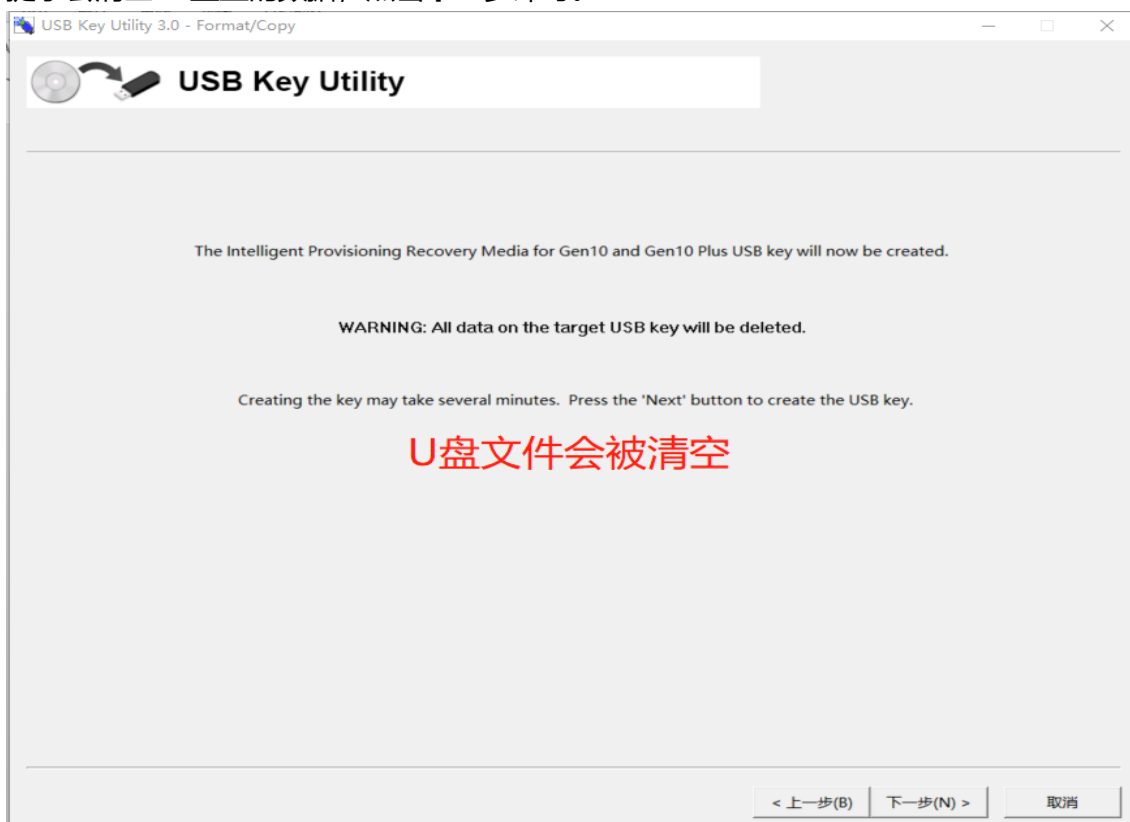
6) 点击下一页。



7) 选择第二个 Browse for ISO file，浏览找到 SPP 镜像文件，选择 U 盘，点击**下一页**。



8) 提示会清空 U 盘里的数据，点击**下一步**即可。



9) 等待一段时间后制作完成。

