

Installing the Windows driver for HPE Smart Array S100i Software RAID

The HPE Smart Array S100i Gen10 SW RAID driver is not currently loaded in Intelligent Provisioning and HPE Smart Storage Administrator (SSA). Therefore, if you launch HPE SSA offline through Intelligent Provisioning or Service Pack for ProLiant, the S100i Gen10 SW RAID is not available, and you are not able to configure arrays and logical drives.

NOTE:

The information in this document applies to HPE ProLiant Gen10 servers only, Intelligent Provisioning version 3.00 and later, and SPP 2017.07.x and 2017.10.1.

Use the following steps to install the driver:

Procedure

1. **Enable Smart Array software RAID** in UEFI Boot Mode.
2. **Create array** using the UEFI System Utilities or by launching HPE SSA from an ISO image.
3. **Manually inject the Smart Array S100i driver during OS installation.**

Enabling Smart Array SW RAID

Prerequisites

Server boot mode must be set to UEFI Mode.

Only SATA drives are supported.

Procedure

1. Reboot the server.
2. Start UEFI System Utilities by pressing **F9 (System Utilities)** during POST.
3. Select **System Configuration > BIOS/Platform Configuration (RBSU) > Storage Options > SATA Controller Options > Embedded SATA Configuration > Smart Array SW RAID Support** and press the **Enter** key.
4. In the SATA Controller Options screen, for the Embedded SATA configuration option, select **Smart Array SW RAID Support** from the drop-down menu and click **OK**.

If you see the warning "Important: Smart Array SW RAID is not supported when the Boot Mode is configured in Legacy BIOS Mode", click **OK**.

5. Press **F12: Save and Exit**.



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6. Save changes by clicking **Yes-Save Changes**.

7. Click **Reboot**.

Creating an array

To create an array, perform either task:

- Use UEFI System Utilities.
- Use HPE Smart Storage Administrator version 3.1.0 or later launched from an ISO image.

Creating an array using UEFI System Utilities

When you create an array, you can select drives, specify RAID level, and configure array settings, including strip size and logical drive size.

Procedure

1. From the UEFI System Utilities screen, select **System Configuration > Embedded Storage : HPE Smart Array S100i SR Gen10 > Array Configuration > Create Array**.
2. In the Create Array screen, select each drive that you want to include in the array and click **Proceed to next Form**.

NOTE:

SAS drives are not supported on the S100i SW RAID.

3. In the Set RAID Level screen, select the RAID Level from the drop-down menu and click **Proceed to next Form**.
4. In the Set Logical Drive Configuration screen, specify the configuration settings or use the default selection.

Setting	Description
Logical Drive Label	Use the default selection for the drive label or enter a new label. The characters in the label can be alphanumeric or spaces.
Strip Size/Full Stripe Size	<p>Strip size is the amount of data that is stored on each physical drive in the array. The full stripe size is the amount of data that the controller can read or write simultaneously on all the drives in the array. For RAID levels that support fault tolerance through parity, the parity information is calculated one full strip size at a time.</p> <p>For hardware RAID, you can specify from 16KiB up to 1024KiB, depending on the number of disks and RAID level. The default value is all available space.</p> <p>For Smart Array S100i SW RAID, the minimum size is 16KiB and the maximum size is up to 256KiB, depending on RAID level and device type.</p>

Table Continued

Setting	Description
Sectors Per Track	Number of sectors per track that are presented to the operating system as part of the legacy disk geometry (C/H/S) information.
Size	Values in decimal; minimum RAID size is 16 MiB.
Unit Size	Logical drive unit size (MiB/GiB/TiB)
Acceleration Method	Logical drive acceleration method (controller cache or none)

5. Click **Submit Changes**.
6. Return to the main menu.
7. Press **F12: Save and Exit**.
8. Click **OK** when prompted to save your changes.
9. Reboot the server.

Creating an array using the offline HPE Smart Storage Administrator

Procedure

1. Launch offline HPE Smart Storage Administrator version 3.10 or later.

For more information, see "Launching HPE SSA from an ISO image" in *HPE Smart Array SR Gen10 Configuration Guide* at <http://www.hpe.com/info/SmartArrayGen10-docs>.

NOTE:

Launching SSA with Intelligent Provisioning or during POST will not allow you to configure the array.

2. Create an array.

For more information, see *HPE Smart Array SR Gen10 Configuration Guide* at <http://www.hpe.com/info/SmartArrayGen10-docs>.

Manually injecting the device driver during OS installation

Procedure

1. Obtain the drivers and extract them to a USB drive.

The drivers for the S100i SR SW RAID solution can be obtained from either Service Pack for ProLiant or the **Hewlett Packard Enterprise website**. The option to extract the files is presented when running the driver installation component.

2. Insert the USB drive containing the driver, and click **Browse**.

For installations using a SATA optical drive to load the Windows installation media, Windows provides an early prompt for the optical device driver to continue installation. When the USB is inserted and the driver is loaded, the driver loads for the SATA optical device and for the SATA drives or SATA SSDs connected to the S100i SR SW RAID solution.

For installations that do not use the SATA optical drive to load the Windows installation media, the **Where Do You Want to Install Windows** window displays.

3. Click **Load driver** and point to the extracted Smart Array SW RAID solution driver folder.