



Configuring SR-IOV Using CCM with BIOS-based Boot on HPE® ProLiant® Server

Products Affected

Product Name
HPE CN1100R Converged Network Adapters
HPE 53X Series Flexible Network Adapters

Introduction

This application note provides instructions for enabling and configuring single-root I/O virtualization (SR-IOV) on the HPE 53X Series Flexible Network Adapters and HPE CN1100R Converged Network Adapters using the Marvell Comprehensive Configuration Management (CCM) tool on the HPE ProLiant® server platform. CCM is integrated into the BIOS on each adapter.

Prerequisites

To configure SR-IOV, you need:

- One or more HPE 53X Series Flexible Network Adapters and/or HPE CN1100R Converged Network Adapters
- An HPE ProLiant server

Configuring SR-IOV

To enable and configure SR-IOV:

1. Start CCM, and then select an adapter and port to manage.
The Main Menu opens.
2. Select **Device Hardware Configuration**.
The Device Hardware Configuration menu opens.
3. Select **SR-IOV**.

4. Press the RIGHT ARROW key to change the value to **Enabled** (see [Figure 1](#)).

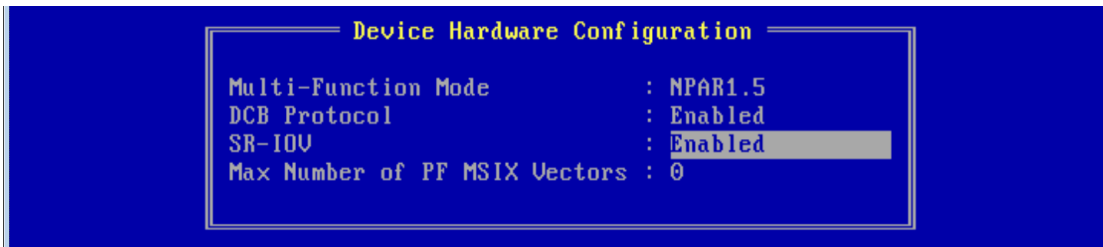


Figure 1. Device Hardware Configuration Menu—SR-IOV Enabled

SR-IOV mode is enabled per physical port; that is, on the same adapter, one physical port can be in SR-IOV mode, while another physical port has SR-IOV disabled.

5. Press ESC.
6. Configure the number of virtual functions that the adapter can support by doing one of the following:
 - If the **Multi-Function Mode** option is **SF** (single function), then the **Number of VFs per PF** option displays. The **Multi-Function Mode** option applies to the entire adapter; that is, all physical ports on the same adapter will be in that mode.
 - a. Select the **Number of VFs per PF** option to enter the desired value (see [Figure 2](#)).

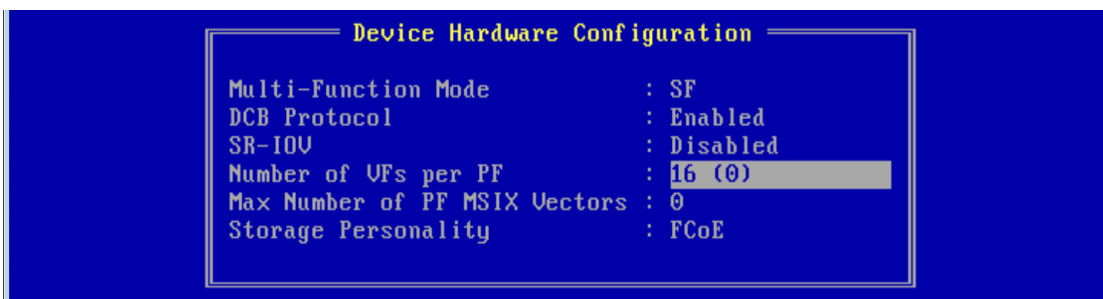


Figure 2. Number of VFs per PF in SF Mode

This option can be set from 0 to 64 in increments of 8 (the default is 16).

- If the **Multi-Function Mode** option is **NPAR1.5**:
 - a. Press ESC to return to the Main Menu.
 - b. Select **NIC Partition Configuration**.
 - c. Select the NPAR physical function (**PF#**) to configure.

- d. Select the **Number of VFs per PF** option to enter the desired value (see [Figure 3](#)).

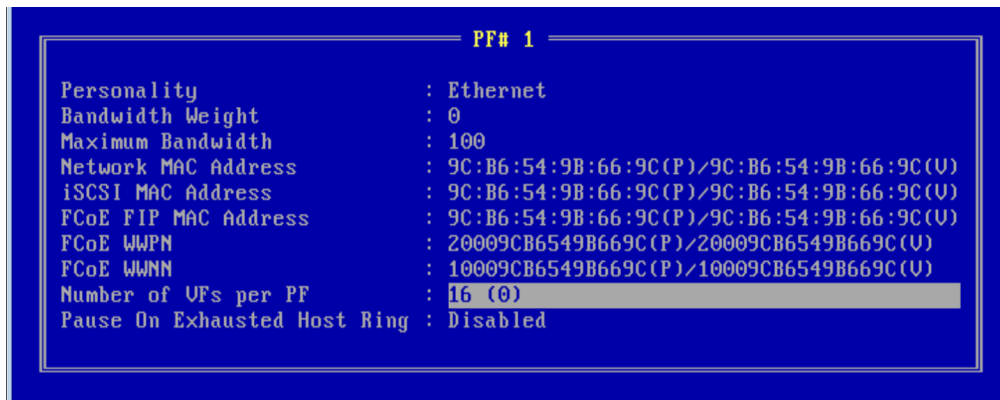


Figure 3. Number of VFs per PF in NPAR Mode

This option can be set from 0 to 64 in increments of 8 (the default is 16). Therefore, the combined VFs of all four NPAR partitions cannot exceed 64.

No VFs can be enabled on or assigned to an NPAR1.5 or FlexFabric® partition that also has FCoE-Offload or iSCSI-Offload enabled. No VFs are lost; they are reassignable and usable on the other Ethernet-only partitions of the same physical port.

- e. Press ESC to return to the NIC Partition Configuration menu and repeat these steps to configure another **PF#**.

See your hypervisor software for instructions on using an SR-IOV-enabled adapter.

Document Revision History

Revision A, January 26, 2015

Revision B, July 31, 2019

Revision C [canceled]

Revision D, February 23, 2021

Changes

Removed StoreFabric® nomenclature.

Removed references to *Starting CCM with BIOS-Based Boot on HPE ProLiant Servers Application Note*, part number BC0051406-00.

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