

## Application Note

# Configuring SR-IOV Using CCM with BIOS-based Boot on HP ProLiant Servers

### Products Affected

Product Name
HP® StoreFabric® CN1100R Converged Network Adapters
HP 53X Series Flexible Network Adapters

## Introduction

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

## Prerequisites

To configure SR-IOV, you need:

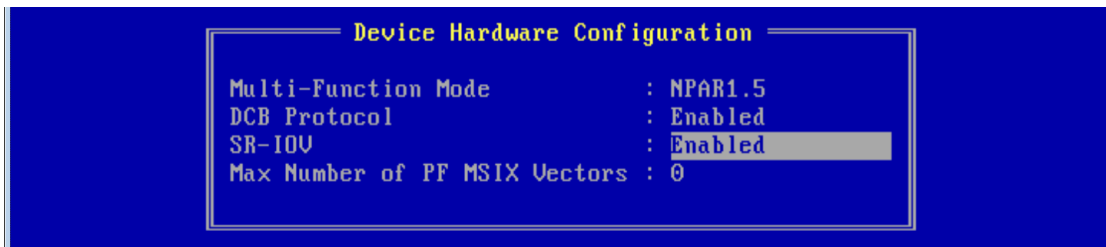
- One or more HP 53X Series Flexible Network Adapters and/or HP StoreFabric CN1100R Converged Network Adapters
- An HP ProLiant server

## Configuring SR-IOV

**To enable and configure SR-IOV:**

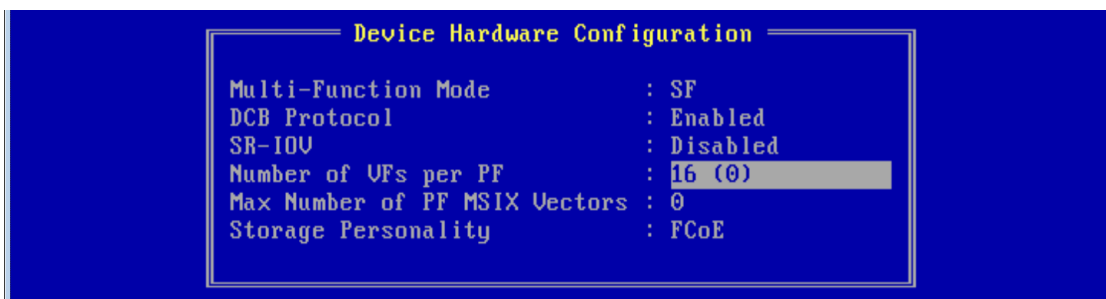
1. Start CCM (see the QLogic *Starting CCM with BIOS-Based Boot on HP ProLiant Servers Application Note*, part number BC0051406-00), and then select an adapter and port to manage.  
The Main Menu opens.
2. Select **Device Hardware Configuration**.  
The Device Hardware Configuration menu opens.
3. Select **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**

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.
    - 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](#)).

```
PF# 1
Personality           : Ethernet
Bandwidth Weight     : 0
Maximum Bandwidth    : 100
Network MAC Address  : 9C:B6:54:9B:66:9C(P)/9C:B6:54:9B:66:9C(U)
iSCSI MAC Address    : 9C:B6:54:9B:66:9C(P)/9C:B6:54:9B:66:9C(U)
FCoE FIP MAC Address : 9C:B6:54:9B:66:9C(P)/9C:B6:54:9B:66:9C(U)
FCoE WWPN            : 20009CB6549B669C(P)/20009CB6549B669C(U)
FCoE WWNN            : 10009CB6549B669C(P)/10009CB6549B669C(U)
Number of VFs per PF : 16 (0)
Pause On Exhausted Host Ring : Disabled
```

**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.

- 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.

## References

For more information, see the following:

- QLogic *Starting CCM with BIOS-Based Boot on HP ProLiant Servers Application Note*, part number BC0051406-00
- HP *Broadcom Comprehensive Configuration Management for HP FlexFabric Adapters User Guide*, part number 746499-001



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