Implementing High Performance Computing Networks with SFS

HPCSFS

Delivery Type: Classroom
Duration: 4 days

Overview

This course provides hands-on training for implementation of high-performance computing (HPC) networks with the Cisco® Server Fabric Switch (SFS) platform.

The course begins with an overview of server fabrics, high-performance computing networks, and the InfiniBand protocol. Through a series of structured lecture and hands-on lab work, you will then learn how to install, cable, configure, and manage the InfiniBand fabric. You will also learn the basics of HPC performance tuning. For those students who are implementing multi-fabric I/O (MFIO) with the SFS platform, the course also covers implementation of the SFS Ethernet and Fibre Channel gateway modules, and remote server boot over InfiniBand.

Pre-Requisites

The Knowledge and skills required for a delegates to sit this course are as follows:

- ✓ Ethernet and TCP/IP data networks
- ✓ Fibre Channel storage network
- ✓ Linux and/or Microsoft Windows system administration
- ✓ Server hardware maintenance
- ✓ Familiarity with network management and troubleshooting.

Objectives

At the end of this course delegates will be able to:

- ✓ Describe server fabric, InfiniBand and HPC basic architecture, applications and components
- ✓ Install HCAs on hosts, rack and cable the fabric components
- ✓ Configure and verify the InfiniBand fabric
- ✓ Use switch management interfaces and identify recommended management practices for images and users
- ✓ Describe the subnet manager and IB addressing
- ✓ Monitor port and card statistics and view logs
- ✓ Configure InfiniBand partitions
- ✓ Describe what comprises a unified fabric and how it functions
- ✓ Install and configure the Ethernet and Fibre Channel Gateways
- ✓ Configure remote server boot over InfiniBand

Target Audience

This course is designed for field engineers who are implementing the Cisco Server Fabric Switch in HPC environments.