## Installing the Virtual Fabric Adapter

The Virtual Fabric Adapter (VFA) has two modes of operation:

- 10Gb Virtual Ethernet mode (vNIC)
- 10Gb Physical Dual Port Ethernet mode (pNIC)

The default VFA mode is vNIC.

The vNIC mode is configured by the Operating System or Hypervisor as eight separate Ethernet devices, four for each physical port. The default setting of each vNIC supports up to 2.5 Gb of throughput.

The pNIC mode is selected using the **F1** boot option of the Unified Extensible Firmware Interface (UEFI) for HS22, HS22v, and HX5 blade servers. When the blade server restarts, the UEFI System Settings screen provides an **Emulex NIC Configuration Utility** option for this purpose. See the *Emulex Virtual Fabric Adapter Installation and User's Guide* for additional information and instructions.

Two 10 Gb Ethernet switch environments are supported, depending on the VFA mode that is selected:

1. vNIC mode (default):
   The VFA must be paired with an IBM BladeCenter Virtual Fabric Switch (VFS) to operate. The VFS must be configured at initial startup to enable VFA Ethernet connections. The VFS configuration parameters control the speed of the individual vNIC links, in increments of 100 Mbps, and assign a collection vNIC links to common communication groups. Unused vNIC links can also be disabled. The VFS installation and configuration documentation provides the steps required to enable or customize the VFA settings and create VF port groups.

2. pNIC mode:
   The VFA acts as a 10 Gb dual-port Ethernet device and can be paired with any high speed IBM BladeCenter 10Gb Ethernet or Converged Enhanced Ethernet (CEE) high-speed switch module. This includes both VFS and non-VFS 10Gb Ethernet switches. No additional high-speed switch module configuration is required when the VFA is set to 10Gb dual-port Ethernet pNIC mode.