



## Product Brief

### VDS-X

## Scalable High-Performance Virtual Disk Subsystem

Create complete virtual disk solutions for your customers – cost effectively

The VDS-X Virtual Disk Subsystem is a scalable OEM/VAR solution you can use to meet your customers' needs for high-performance data protection and storage management. Instead of spending years developing a disk appliance solution for your customers, use VDS-X software to get your solution to market in record time — and deliver it under your own brand for a wide range of niche markets. VDS-X eliminates the typical integration headaches.

With a VDS-X virtual disk solution, you can deliver powerful functionality to your customers cost effectively, using commodity, off-the-shelf hardware. Along with ultra-high performance, your customers get the scalability and flexibility they need, at speeds up to 10 times faster than traditional physical disk systems (for example, JBOD). In addition, VDS-X supports multi-path access to virtual disks to provide scalable performance and fail-over management by the host computer.

The VDS-X product supports both Fibre Channel and iSCSI interfaces, as well as any block storage technology, including the new high-speed SATA RAID disk storage. Combining BSI's ultra-high-performance disk emulation technology and the latest high-speed SATA RAID disk storage allows you to deliver a powerful product with ground-breaking price/performance to your customers.

### Real Business Benefits

- **Achieves Recovery Point Objectives via Rapid Recovery** - Protects data from soft errors such as accidental deletions,

corruptions, and viruses, and ensure transactional integrity/consistency of databases.

- **Offers Continuous Data Protection for Direct Attached Storage** - Provides continuous replication of data from a remote or satellite office to a centralized Storage Server over a LAN or WAN connection. This unique solution is perfect for centralized data protection and management.
- **Delivers Improved Disaster Recovery Capabilities via Replication Solution** - Reliably replicates database or messaging system's mission-critical data from a primary site to a secondary site over IP, to ensure immediate, granular recovery from primary disk and site failures and achieve continuous business operations in the event of a disaster.

### Xtreme Performance

- Delivers aggregated speeds up to 380 MB/s per 4Gbs FC port; 95 MB/s per gigabit iSCSI port
- Supports multiple storage networking interfaces for multi-path performance and failover configurations

### Xtreme Scalability

- Configure as a single large or multiple smaller disks
- Flexible mapping of virtual disks to physical block storage
- VDS-X configurations available from single disk drive through enterprise level, 1000+ disks (expandable to limits of hardware components)
- Virtual disk volumes map to partial or to multiple physical disk devices or systems
- Software runs on “off-the-shelf” rack-mount or blade server hardware platforms
- Adaptable to OEM custom hardware platform for high-volume products

- Maximum performance configurations scale linearly with actual hardware configuration up to large enterprise-class systems utilizing multiple hardware platforms
- Virtual disk drives can be created/deleted dynamically on demand
- Configurable LUN mapping to control visibility of virtual disks to different initiators

### **Xtreme Reliability**

- Media emulation can select appropriate level of data protection for the virtual disk volumes (VDV): RAID level, remote replication, etc.
- Wide range of qualified high-availability hardware platforms are supported with hot-swappable components and redundant cooling and power from IBM, Dell and other major commodity hardware vendors
- Enclosure services and operating environment monitoring

### **Xtreme Extensibility**

- BSI device configuration management and operational control management GUI or API for custom GUI
- Unified data representation model can integrate and bridge between SAN and NAS environments in a single appliance
- Customizable “plug-in” interface for various block-level services such as encryption, compression, heterogeneous replication, etc.
- OEM/VAR application specific plug-ins for niche market
- OEM/VAR branding

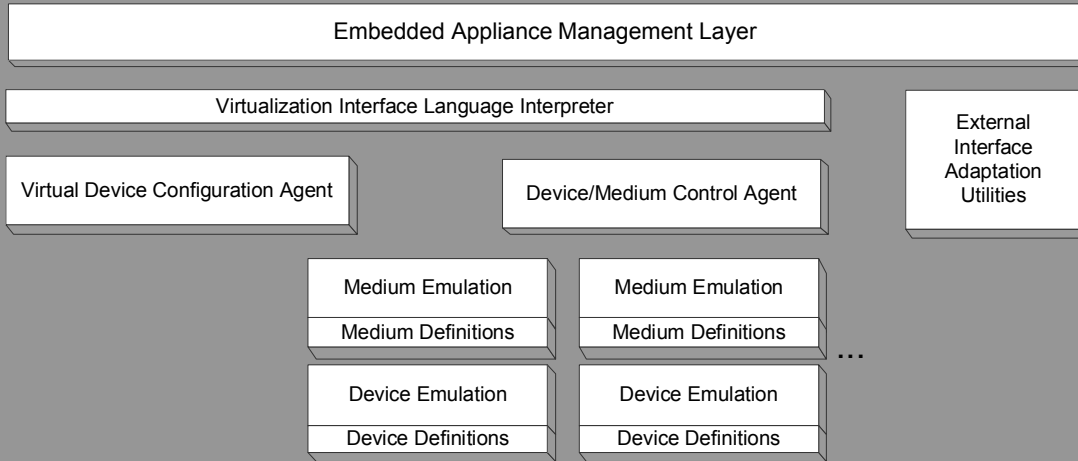
### **Xtreme Emulation**

- Full SCSI disk device command set implementation
- Interface support for standard disk fault monitoring protocols (e.g. S.M.A.R.T.)
- Full emulation of plug-and-play device discovery

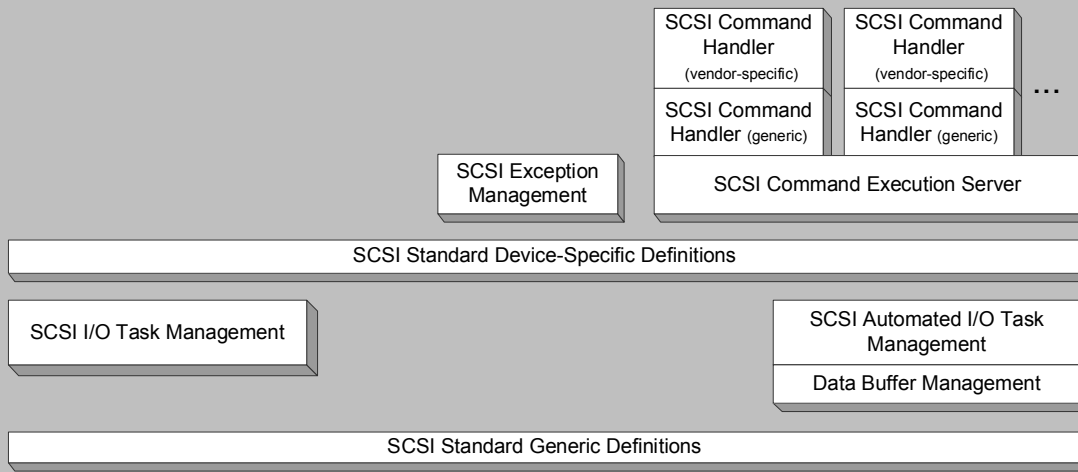
<b>Supported Emulations</b>	
<u>Storage Networking Interfaces</u> Qlogic	Fibre Channel 1GB Fibre Channel 2GB Fibre Channel 4GB iSCSI 1-Gbs Multiple port FC iSCSI interface configs

# Firmware Foundry Meta Code Tiers

**Tier 3**  
products  
Storage  
Appliances



**Tier 2**  
products  
Storage  
Devices



**Tier 1**  
products  
Target  
Mode  
Drivers

