



EtherDrive SAN HBA

2-Gigabit PCI-E HBA

SUMMARY

- Connects VMware ESX server to affordably fast EtherDrive SAN
- 10% the cost of comparable iSCSI HBA
- 2-Gigabits of full-duplex bandwidth on single low profile PCI-E slot
- High performance shared storage for VMFS & RDM
- Presents LUN as local SCSI device
- Scalable bandwidth and path redundancy
- Fault tolerant provisions
- Powered by ATA-over-Ethernet (AoE)
- Uses inexpensive Ethernet switches for SAN
- Compatible with VMware ESX 3.5+ and ESXi



EtherDrive Host Bus Adapter (HBA)

The EtherDrive® 2-Gigabit Host Bus Adapter and driver for VMware® ESX/ESXi enable your server with AoE technology to deliver affordably fast EtherDrive SAN solutions for your virtualization environment. Enabling ESX hosts to work natively with EtherDrive storage is an highly effective way to take full advantage of VMware Infrastructure features including VMotion and VMFS. CORAIID EtherDrive SAN products deliver Fibre Channel speeds at Ethernet prices in an easily scalable, reliable, and simply elegant solution.

EtherDrive SAN is comprised of one or more LUNs providing shared storage for VMFS and RDM. Installed in the ESX server, the EtherDrive HBA presents the LUN on the EtherDrive SAN as a locally attached standard SCSI device to ESX. The software driver and HBA perform the translation of the SCSI disk requests to AoE requests and transmit them to the EtherDrive SAN. As responses return from the EtherDrive SAN, the reverse translation occurs in the HBA software driver.

Finally, affordably fast SAN for VMware

At a fraction of the cost of a comparable iSCSI adapter, the EtherDrive HBA installed in the ESX server coupled with EtherDrive SAN delivers the promise of affordably fast SAN to satisfy the increasing storage demands for the virtualized environment. Dual RJ45 Ethernet connections provide 2-Gigabits of bandwidth on a single low profile PCI-E slot. The PCI Express interface provides dedicated I/O bandwidth for I/O-intensive applications common to the virtualized environment. Installing multiple HBAs in an ESX

server provides scalable bandwidth and path redundancy. EtherDrive SAN scales efficiently, quietly and affordably providing ESX users with the promise of SAN.

Fault Tolerance

CORAIID EtherDrive products facilitate building fault tolerant SAN solutions that complement the virtualization environment of ESX. With dual interfaces on the HBA, automatically aggregated bandwidth provides maximum performance. If either path to either port fails, the LUN is still useable. Adding multiple HBAs to each ESX server provides HBA redundancy as well as aggregated bandwidth performance. The EtherDrive EM22 Mirror appliance added to the SAN in conjunction with VMware VMFS cluster file system maximizes storage flexibility and provides data protection.

Maximize the Virtualization Environment

Providing high-performance shared storage, EtherDrive SAN maximizes VMware's Infrastructure technologies including VMotion technology, View virtual desktop management, and VMFS clustered file system. The encapsulated state of a virtual machine stored on EtherDrive SAN shared storage with VMFS cluster file system allows both the source and the target ESX server to access virtual machine files concurrently during VMotion operations. EtherDrive SAN delivers enterprise-class storage for thin provisioning, data duplication, snap shots and cloning.



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Powered by ATA-over-Ethernet (AoE)

The CORAIID EtherDrive family of SAN products is built upon ATA-over-Ethernet (AoE), an open lightweight storage area network protocol. Designed for simple, high-performance access of SATA storage devices over Ethernet networks, AoE gives the possibility to build SANs with low-cost, standard technologies. AoE is a thin protocol layer directly on top of Ethernet. Packets are addressed to devices using their MAC address. Since AoE is a non-routed protocol it does not require TCP or IP layers, eliminating unnecessary processing. The simplest possible way of sharing a disk drive through a network, AoE is simple and direct. With fencing and reservation capabilities, AoE is the perfect technology for building affordably fast SAN solutions for the virtualization environment. EtherDrive SAN powered by AoE - a simply elegant solution.

Simply No Need For ...

Unlike iSCSI implementations, EtherDrive SAN is built on the open AoE protocol so there is simply no need for IP addresses, complex IQN naming schemes, or Extended Unique Identifiers (EUI). Unlike Fibre Channel implementations, EtherDrive SAN is built upon today's

affordably fast and reliable Ethernet technology so there is simply no need for costly FC fabric infrastructure with associated configuration complexities and WWPN management. As an un-routed protocol, AoE is inherently secure so there is simply no need for CHAP authentication and zoning complexities. Based on a datagram protocol, the EtherDrive HBA ports are automatically aggregated by the ESX driver so there is simply no need for configuring port bonding on the Ethernet switch. Since the EtherDrive HBA software seamlessly aggregates multiple ports across multiple HBAs, there is simply no need for wrestling the complexities associated with multipath IO configuration. Affordably fast EtherDrive SAN – easy to buy, easy to install, easy to run.

SPECIFICATIONS

Product Code	CHBA-D1G-PCIE
Bus Interface	PCI-e x4 interface
Card Type	Low-profile, half-length PCI-e x4 standard card
Connectors	Dual Gigabit RJ45
Frames	Jumbo frame support up to 9.5KB packets
Certifications	RoHS 6/6

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