



VMware and Coraid Solutions for Businesses

Business Challenges Today

Businesses of all sizes face many IT challenges and place great emphasis on cost savings and on protecting business critical data. With shrinking IT budgets and a “do more with less” mantra it is more important than ever to invest in new technologies to improve efficiencies and reduce cost.

- **Leveraging IT Assets.** Today’s datacenter managers typically do not have a lot of discretionary cash to outlay—they need cost-effective solutions that can better leverage their existing storage, network, and server resources.
- **Increasing the efficiency of IT Professionals.** Most enterprises have limited IT headcount and spend too much of their time on monotonous IT management activities. IT departments need easy-to-use solutions that can simplify their IT environments and reduce the amount of time they spend managing and maintain them.
- **Improving Availability/Ensuring Business Continuity.** Companies of all sizes need efficient ways to back up and restore production systems while minimizing downtime. While most companies employ some level of back up strategy, very few actually test it for recovery capabilities. Given that 60-90% of companies without a disaster recovery plan fail within 24 months of a disaster occurring, companies need to consider a full business continuity plan to ensure recovery of business-critical systems at all times—or risk losing their businesses.
- **Testing Applications before Production.** Industry analysts suggest that a large portion of unplanned downtime is caused by application and production errors, costing significant amounts of lost productivity and IT staff time to correct. Unfortunately, there is often little time or staging infrastructure for thorough patch testing, migration, or upgrade projects. Organizations need to create pre-production or testing environments to test solutions before deployment to avoid costly problems after they go live.
- **Deploying Applications in a Secure Environment.** After these business applications have been thoroughly tested, they need to be deployed into secure environments to protect the business from costly disruptions.

Benefits of VMware Virtualization

VMware equips companies of all sizes with technology solutions that allow them to cost effectively optimize the use of their existing IT assets and resources as well as

protect the systems, data, and applications that run the business, ensuring Always On IT. With analysts predicting the adoption of virtualization to double in the next 24 months, these benefits are making this compelling technology a mainstream mandate. Through the use of virtualization, companies are able to:

- **Slash capital costs.** Through consolidating servers and containing additional hardware spend, VMware virtualization delivers improved utilization of their servers, resulting in fewer resources to manage, power, store, and buy. This enables companies to increase utilization rates for x86 servers from 5–15 percent up to 60–80 percent.
- **Increase IT staff productivity.** VMware vSphere solutions are easy to deploy, use, and manage. They provide IT professionals with the freedom to be released from menial tasks, enabling them to take a more strategic role in the enterprise.
- **Deliver affordable business continuity.** VMware solutions offer complete data protection, truly continuous application availability and automated disaster recovery across physical sites—capabilities previously too costly and complex for many businesses to consider.
- **Improve application quality and deployment.** With VMware virtualization, businesses can test more applications by optimizing pre-production staging environments, resulting in less downtime for the applications that run and drive the business.
- **Strengthen security.** VMware virtualization enables automated patch management of server hosts and virtual machines and an integrated firewall that maintains security policies across the mobile, flexible environment and decreases operational costs of managing them.

Learn More

To learn more about VMware solutions and products, visit:

- VMware home page: <http://www.vmware.com/>
- VMware User Groups: <http://communities.vmware.com/community/vmug/>
- VMware Store: <http://www.vmware.com/vmwarestore/>



CORAIID, Inc.
www.coraid.com

Overview

Coraid provides innovative, affordably fast Ethernet SAN storage appliances based on the open ATA-over-Ethernet (AoE) lightweight storage area network protocol.

Key Business Needs

Server virtualization requires block-level storage with low capital and operational expense that is affordable, fast, easily scalable, easy to deploy, use and manage.

- Block-level network storage
- Low CapEx and OpEx
- Fast
- Scalable
- Easy to deploy, use and manage

Key Business Benefits

Coraid EtherDrive Ethernet SAN effectively leverages VMware infrastructure solving the increased storage demands of virtualization, and providing businesses with affordably fast SAN.

- More affordable than iSCSI
- Faster than Fibre Channel
- Easily scalable
- Low CapEx and OpEx

Business Results

Coraid EtherDrive Ethernet SAN enables businesses of all sizes with fast, reliable block-level storage to affordably leverage the virtualization environment. EtherDrive SAN leverages key features of vSphere including thin provisioning, snapshots, DR, volume management and storage motion without replication and provides affordably fast SAN with an exceptionally low TCO and impressive ROI.

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Coraid EtherDrive Ethernet SAN provides the datacenter with fast affordable storage solutions to leverage vSphere infrastructure delivering Fibre Channel speeds at Ethernet prices.

Products

Providing high-performance shared storage, EtherDrive SAN maximizes vSphere technologies including vMotion, View virtual desktop management, and VMFS clustered file system.

Coraid Products

Coraid provides a complete line of high performance SAN appliances, volume management appliances, and fault tolerant mirroring appliances.

Coraid EtherDrive Delivers Fast Affordable SAN to the Datacenter

Fibre Channel speeds at Ethernet prices

Industry Overview

Historically, the only block-level network storage available to VMware users has been expensive solutions based on Fibre Channel or iSCSI storage protocols. Traditionally, Fibre Channel is deployed in large tier-1 datacenters while iSCSI is deployed in smaller datacenters or remote offices. In response to increased demands from VMware users and a definitive emerging market need for fast and affordable network storage, EtherDrive storage gives VMware® vSphere™ users immediate access to a fast affordable SAN storage choice. Coraid's high performance EtherDrive SAN products support the vSphere features in a uniquely affordable way.

Solution Overview

Coraid EtherDrive Ethernet SAN storage running on Layer 2 Ethernet delivers an affordably fast SAN that satisfies the storage demands of enterprises looking to control costs in their virtualized environments. Scaling efficiently, quickly and affordably to provide ESX users with SAN, EtherDrive SAN solutions are easily scalable from a 4TB single storage appliance to a multi-petabyte system by simply adding more storage appliances. EtherDrive storage appliances can be configured with SSD, SAS or SATA Coraid-certified enterprise class disk drives. Simple, easy to understand and easy to use, Coraid EtherDrive SAN delivers fast, affordable storage area network solutions that are budget friendly and maximize ROI.

Providing high-performance shared storage, EtherDrive SAN maximizes VMware's Infrastructure technologies including VMware VMotion™ technology, View virtual desktop management, and VMFS clustered file system. The encapsulated state of a virtual machine is stored on the EtherDrive SAN shared storage with VMFS cluster file system, allowing both the source and the target ESX server to access virtual machine

files concurrently during VMotion operations. Effectively leveraging existing VMware infrastructure features, simple block-level storage EtherDrive Ethernet SAN delivers enterprise-class storage for thin provisioning, data duplication, snapshots and cloning without additional costs or unnecessary duplication of functionality.

Solution Benefits

EtherDrive SAN is the most cost effective way to leverage VMware virtualization to solve the increased storage demands of virtualization, providing customers of all sizes with an affordably fast Ethernet SAN that is reliable, scalable and easy to deploy. Using the existing Ethernet infrastructure available, EtherDrive SAN is easily configured and deployed. Coraid technology provides even greater added value to vSphere virtualization deployments allowing the customer to focus on streamlining, consolidation, and efficiency. EtherDrive SAN extends cost saving and provides significant business benefits beyond VMware virtualization's benefits including lowered capital and operating expenses, business continuity and strengthened storage security.

VMware and Coraid

Coraid EtherDrive Ethernet SAN is a simple, easy to deploy, highly scalable and reliable block-level storage that uniquely serves the vSphere server virtualization environment. Running on Layer 2 Ethernet, EtherDrive SAN leverages key features of vSphere from thin provisioning to snapshots, DR, volume management and storage motion without duplication of these functions in the storage array. Faster than iSCSI and Fibre Channel, the Coraid EtherDrive storage appliance delivers sustained access speeds that exceed 1800 Mbytes/second for less than \$0.60/GB. EtherDrive provides affordably fast SAN with an exceptionally low TCO and impressive ROI.