

Transforming Business Continuity with VMware Infrastructure

Current Business Continuity Challenges

Implementing plans to ensure business continuity for key IT services and business critical applications is an essential requirement for organizations today. Downtime of important applications is a costly proposition and extended downtime can even be fatal—industry research finds that a significant number of companies that experience extended interruption to IT services soon go out of business.

While most organizations recognize the importance of business continuity, their ability to provide high availability and disaster recovery for key applications in a physical (non-virtualized) environment is often constrained by the following challenges:

- **High costs.**

Many solutions require significant investment in additional hardware, software and services. Disaster recovery plans in particular often require duplicating data center infrastructure, resulting in a proliferation of underutilized servers.

- **High complexity.**

Most traditional business continuity solutions add significant complexity to data center environments. Acquiring and managing additional servers, use of complex cluster tools implementing and maintaining specialized software and processes all contribute to this complexity.

- **Failure to meet recovery time and availability goals.**

Due to the cost and complexity of business continuity solutions, organizations are often forced to compromise on solutions that are unlikely to meet goals for availability and recovery time objectives.

- **Insufficient reliability.**

Testing existing complex business continuity solutions is challenging and requires significant equipment, expertise and personnel resources. The complexity of these specialized solutions also makes them difficult to maintain.

Higher Availability with VMware Infrastructure

Industry-leading VMware® VMotion™ technology allows IT administrators to move running virtual machines from one physical server to another without downtime. This capability makes it possible to conduct zero-downtime hardware maintenance by simply using VMotion to move running applications to other physical servers as needed.

VMware Distributed Resource Scheduler (DRS) can reduce unplanned downtime by automating the process of using VMotion to migrate running applications away from servers that

cross utilization thresholds or moving virtual machines non-disruptively to servers that have the needed compute resources.

VMware High Availability (HA) provides easy to use, cost effective high availability for applications running in virtual machines. In the event of server failure, affected virtual machines are automatically restarted on other physical servers that have spare capacity.

Better Disaster Recovery with VMware Infrastructure

VMware virtual machines are hardware-independent so any physical server can serve as a recovery target for any virtual machine. Organizations can significantly reduce the cost of hardware for disaster recovery by repurposing underutilized existing servers for recovery targets and disaster recovery testing.

VMware Infrastructure also simplifies and accelerates recovery, helping IT organizations meet their time-to-recovery targets. Complex multi-step procedures using specialized software for baremetal recovery and operating system recovery can be simplified to single-step file recovery because virtual machines are completely encapsulated in a small number of files and can be restored to any hardware.

Finally, VMware Infrastructure simplifies testing of disaster recovery plans and makes training personnel in disaster recovery procedures easier.

Benefits of VMware Business Continuity Solutions

Customers who use VMware Infrastructure to improve their business continuity plans experience numerous benefits, including:

Downtime reduction by eliminating planned downtime due to maintenance, or reducing un-planned downtime through economical sharing of fault-tolerant hardware features, and automated rapid restart of virtual machines.

Lower costs by implementing better business continuity at a lower cost, eliminating the need for additional hardware and specialized software.

Simplified processes by removing the complexity of maintaining duplicate physical systems for disaster recovery.

Learn More

To learn more about VMware solutions and products, visit <http://www.vmware.com> or call 1-877-4VMWARE.

Partner Solution Profile



PARTNER PROFILE

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ISV Overview

Coraid is redefining the fundamental economics of storage with Ethernet SAN solutions that provide enterprises of all sizes with flexible, scale-out, high-performance storage. Using innovative software with commodity, industry standard hardware and Ethernet, Coraid EtherDrive® storage arrays enable a scale-out Ethernet SAN architecture that is ideally suited to dynamic, high-performance computing, video, virtualization and cloud environments.

Key Business Needs

Virtualization has transformed the data center and is changing all aspects of IT operations — including greater demands on storage and availability, and unexpected bottlenecks in performance. Current SAN technologies (Fibre Channel, iSCSI) are too expensive, too complex, and poorly adapted for dynamic virtualization workloads.

Key Business Benefits

Coraid's EtherDrive Ethernet SAN storage is a fast and simple alternative to iSCSI and Fibre Channel SAN technologies. It provides enterprises of all sizes with flexible, scale-out, high-performance storage. Using innovative software with commodity, industry standard hardware and Ethernet, Coraid EtherDrive storage arrays enable a scale-out Ethernet SAN architecture that is ideally suited to dynamic, high-performance virtualization environments.

Ethernet SAN Benefits:

- 5-8x price performance advantage
- Flexible, scale-out architecture
- Operational simplicity

Business Results

Coraid EtherDrive SAN solutions enables the datacenter with fast, reliable storage to affordably leverage the virtualization environment. EtherDrive storage appliances leverage key features of vSphere including thin provisioning, snapshots, DR, volume management and storage motion providing affordably fast Ethernet SAN with an exceptionally low TCO and impressive ROI.

VMware and Coraid

Coraid EtherDrive Ethernet SAN solutions provide the datacenter with fast, affordable storage solutions to leverage vSphere infrastructure. They provide high-performance shared storage to maximize vSphere technologies including vMotion, View virtual desktop management, and VMFS clustered file system.

Coraid Products

Coraid's EtherDrive storage solutions deliver flexible, high-performance, scale-out storage designed from the ground up for simplicity and virtualization. EtherDrive® storage enables lower OPEX and 5-8x price performance advantage over legacy Fibre Channel systems.

Industry Overview

Historically, the only block-level network storage available to VMware users has been solutions based on Fibre Channel or iSCSI storage protocols. Traditionally, Fibre Channel is deployed in large datacenters while iSCSI is deployed in smaller datacenters or remote offices. In response to increased demand 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.

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 and easy to understand, Coraid EtherDrive SAN delivers fast, easy-to-use storage area network solutions that are budget friendly and maximize ROI.

Solution Benefits

EtherDrive SAN is the most cost-effective way to leverage VMware virtualization, solving the increased storage demands of virtualization and 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 savings 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 MB/second for less than \$0.60/GB. EtherDrive provides affordably fast SAN with an exceptionally low TCO and impressive ROI.

