

## Better Business Continuity with VMware Virtual Infrastructure and Double-Take



### Business Continuity Challenges

Implementing plans to ensure business continuity for key IT services is a 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 is often constrained by the following challenges:

- **High costs.** Many business continuity 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 costly, underutilized servers.
- **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.
- **Overly complex and unreliable solutions.** Requiring significant equipment and personnel resources, the complexity of specialized solutions make them difficult to maintain and harder to ensure that sufficient staff are trained and available when needed.

### Higher Availability with VMware Virtual Infrastructure

VMware's groundbreaking VMotion technology allows IT administrators to move running virtual machines (software containers that hold a complete operating system and applications) 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.

Support for redundant network and storage interface cards is built into VMware® ESX Server, allowing network and storage interface cards to be shared by multiple virtual machines on a server.

### Better Disaster Recovery with Virtual Infrastructure

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

With VMware virtual infrastructure, complex multi-step procedures using specialized software for bare-metal 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, they can be restored to any hardware. This encapsulation property also makes it possible to use third-party replication software to replicate entire virtual machines to a recovery site, reducing recovery time to just a few hours.

Virtual infrastructure enables a more reliable disaster recovery plan. Because it simplifies disaster recovery processes, the ability to meet time-to-recovery targets is improved, testing of disaster recovery plans is simpler, and training personnel in disaster recovery procedures is easier.

### Benefits of Business Continuity Solutions with Virtual Infrastructure

Customers who have used VMware virtual infrastructure to improve their business continuity plans have realized benefits including the following:

- **Reduced downtime.** Customers can eliminate much of their planned downtime with a virtual infrastructure solution. They can also prevent and reduce unplanned downtime, including dramatic reductions in time to recovery for disaster scenarios.
- **Lower costs.** Virtual infrastructure makes it possible for companies to implement better business continuity at a lower cost by slashing the need for additional hardware and specialized software.
- **Simplified processes.** Virtual infrastructure removes the complexity of maintaining duplicate physical systems for disaster recovery. It also eliminates and streamlines much of the recovery process.

### Learn More

To learn more about VMware solutions and products, visit our Web site at <http://www.vmware.com> or contact us at us at 1-877-4VMWARE.



## Key Highlights

Double-Take Software, Inc.  
www.doubletake.com

## Partner Overview

Double-Take® Software provides the world's most relied upon solution for accessible and affordable data protection for Microsoft® Windows® servers and applications.

## Key Business Needs

Server uptime and accessibility is paramount for any IT organization. Businesses today rely on their data and server infrastructure and need to be sure that these vital components are protected and available.

## Key Business Benefits

Double-Take enables customers to replicate and protect mission-critical data that resides throughout the environment - combining continuous real-time data protection and automatic failover capabilities for disaster recovery, high availability and centralized backup. It is more flexible than typical hardware solutions yet at a fraction of the cost.

## Business Results

The joint solutions from VMware and Double-Take deliver server availability and recovery to IT managers that are both affordable and scalable. These solutions provide lower overall costs, employee productivity and improved application service levels.

## VMware and Double-Take Software

Double-Take Software and VMware technology provide the highest levels of data protection and availability while simplifying management and reducing costs of the IT infrastructure.

## Products

- VMware Infrastructure 3
- VMware ESX Server
- VMware Server
- VMware Virtual Center
- VMware Virtual Machine Importer

## Partner Products

Double-Take®  
Double-Take for Virtual Systems®  
GeoCluster®

## Disaster Recovery from Double-Take and VMware

Leading-edge solutions to protect your business and reduce costs

### Industry Overview

It's no easy task for IT managers to manage hundreds of servers running various applications, especially when there are servers at remote office locations supported by staff with limited or no technical expertise. Trying to protect all of this information is a burden that often requires more hardware, more space, and more headaches. However, the need to reduce server and application downtime is an increasingly critical requirement for IT organizations. In today's ever-demanding business environment, companies must be certain that their computing infrastructure is reliable, scalable and protected in real time.

### Solution Overview

Joint solutions from Double-Take Software and VMware provide for the highest levels of data protection and availability while simplifying management and reducing costs of the IT infrastructure - providing some of the most innovative and cost effective business continuity solutions available.

### Virtual Machine Protection

Virtual machines offer many great benefits including reduced costs and simplified IT management. With a single server running multiple applications, loss of that server or even a component within it will result in having to recover all of the application data.

The implementation of an enterprise-class data and application protection solution becomes even more crucial. With Double-Take and VMware Infrastructure 3 users can have robust disaster recovery protection for each virtual machine in the event of a local or regional failure. Double-Take allows the data from each virtualized production server to be replicated in real-time to a target virtual or physical server. Should recovery be necessary, for one or multiple of the virtual servers, all data will be readily available on the target server.

### Physical to Virtual Recovery

Applications typically require their own dedicated server, as they are not able to run with other applications on the same hardware. Providing high availability (HA) failover solutions to these applications, therefore, requires a dedicated target server for each one to act as the failover server. However, by creating VMware virtual machines on a single target server, Double-Take is able to allow multiple application servers to be monitored by a single physical target server. Using Double-Take, the application data from each production server is replicated in real-time to the appropriate virtual machine on the target server. Should one or more of the production servers fail, their virtual complement on the target server can assume its identity (name and IP address) and immediately begin processing production requests.

These disaster recovery scenarios can be accomplished equally well over WAN and LAN environments, providing superior flexibility and protection for the critical servers and data within the IT infrastructure.

### Solution Benefits

- Physical server to virtual machine (P2V) disaster recovery
- Complete virtual machine (V2V) disaster recovery
- Easily implemented in a WAN environment
- Simplified server management
- No application conflicts
- Single server provides high availability for multiple physical servers
- Protect multiple applications with a single server
- Lower TCO by reducing hardware requirements
- Supports all VMware Infrastructure 3 platforms