



VMware Business Continuity and Disaster Recovery Professional Services

Introduction

Today's businesses depend on information plus continuous, reliable access to information through technology. IT professionals must meet ever increasing demands to keeping systems up and running in spite of events such as power outages and other sources of downtime. The business continuity\disaster recovery practice at VMware® Professional Services is dedicated to providing cost-effective ways to safeguard your virtual server infrastructure.

Using the features and benefits provided by VMware Infrastructure, your datacenters and server clusters can be configured and operated to provide highly available operations, and to be successfully brought back to service after unexpected downtime. This brief describes best practices and offerings available from VMware Professional Services that enable virtualized servers to run reliably, failover smoothly, and recover rapidly.

Business Continuity and Disaster Recovery (BCDR)

Business continuity is the comprehensive strategy to prioritize key business processes, identify risks that threaten normal operations, and provide effective recovery responses to those challenges. Disaster recovery includes all the tactical efforts by an organization to minimize any loss brought on by unforeseen outages, including established processes used to recover from an unforeseen event.

Virtualization enables us to encapsulate existing physical servers into virtual machines. A single host computer can operate many virtual machines simultaneously, while the OS and applications within each virtual machine continue to run independently. After datacenters and servers are virtualized, the approaches IT uses for business continuity and disaster recovery evolve to become more cost effective, adaptable, and quicker to implement.

Benefits of Virtualization for BCDR

IT Professionals in General

- Focus more on business needs and priorities, as opposed to hardware constraints and requirements
- Flexibly allocate recovery site resources to the business areas and applications that need them most
- Increase standardization and control over recovery processes for your applications
- Reduce need for manual or script-based processes for recovery
- Replicate entire virtual machines for recovery faster and save administrative costs
- Save time and reduce errors with more cost effective, automated testing processes
- Reduce need for parallel upgrades and patch application

Enterprises and Commercial

- Safely manage planned and unplanned service disruptions
- Flexibly invest incrementally in a disaster recovery solution based on business need
- Invest in a technology that scales from departmental-level server clusters to larger datacenters
- Reduce hardware infrastructure required for recovery sites and protected servers
- Purchase the most available, affordable, robust server technology for recovery, regardless of the original servers being protected

Small and Mid-Size Businesses (SMB)

- Affordable entry-point and one of the simpler full solutions for commercial and small to mid-size businesses (SMB)
- Ease of use through increased standardization for process and technology
- Affordably own and control infrastructure for recovery

Our Approach on BCDR

When you engage VMware Professional Services for business continuity and disaster recovery, you rely on industry-leading experts who will help you build a reliable, cost effective recovery system for your virtual environment. It is the goal of VMware Professional Services to provide knowledge transfer, best practices, planning and implementation that minimizes recovery time and enables recovery of the largest quantity of most current data from outages.

Evaluation and Assessment

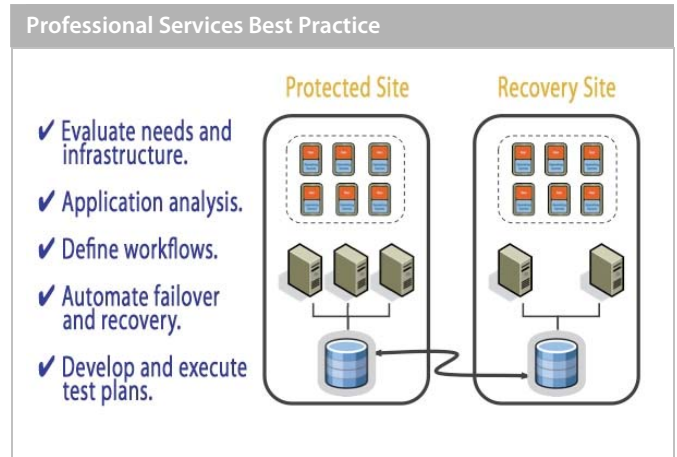
BCDR engagements typically start by gathering requirements needed to develop continuity and recovery plans as well as structure the virtual environments at primary and failover sites. The other key aspect of this initial engagement phase is knowledge transfer on BCDR within the context of virtualization. This helps prepare IT staff, equipment, and processes required for implementation. As part of a typical evaluation, the following areas are addressed:

- Identify your business continuity objectives and requirements
- Examine any customer-specific issues and considerations for disaster recovery
- Assess available disaster recovery alternatives with respect to the customer's technology infrastructure, business objectives and budget
- Evaluate the different workflow options, application dependencies, workflows requiring human intervention, and forms of testing
- Establish customer understanding on the benefits of VMware technologies such as VMware Site Recovery Manager (SRM) within the larger disaster recovery system for the virtual environment

Expertise in Plan and Design

The majority of hands-on work for BCDR engagements takes place in plan, design, and implementation phases where the infrastructure, processes and information required for continuity and recovery are developed and deployed. In this phase, VMware Professional Services typically addressed the following areas:

- Provide operational risk analysis to determine scope of implementation required
- Confirm plans are in alignment with any existing, comprehensive business continuity strategy
- Define failover and failback workflows to manage virtual machine startup sequences, application dependencies, and any storage or network failures



- Define virtual machine resource requirements, and identify any additional third-party resource required for the system
- Test workflows and revise based on gap analysis
- Develop user acceptance tests for applications, and test for disaster recovery workflow
- Establish maintenance procedures for review, refinement, re-testing and retraining for workflows

Operational Management

The testing phase for business continuity and disaster recovery infrastructure is typically one of the most important and costly steps. VMware PSO has the knowledge and expertise in virtualization to conduct testing in ways that are more cost-effective and less complex than those used in the physical world.

Special equipment, such as physical switches are not needed for virtualized resources. Instead, virtual switches and resources pools of virtual machines can be used to simulate failover and recovery. Virtual machines can also be cloned and deleted afterwards.

As part of a larger VMware Professional Services engagement, knowledge transfer and training will be conducted on operational management to assure existing IT staff that they can also conduct required tests, and manage failovers and recoveries.

Conclusion

The market for business continuity and disaster recovery has seen changing customer needs that are driven by data growth, regulatory issues and the growing importance to access data quickly. At the same time, customers face an ever-shrinking time frame for backing up data, which is burdening conventional tape backup technologies and leading to an increase in disk-based backup, data mirroring and high-availability systems.

By engaging VMware Professional Services, you rely on experts who can best design and implement virtual infrastructures that can be restored and managed after outages. Customers not only realize cost savings and time reduction for recovery through virtualization, they also gain additional assurance by designing the right infrastructure and gaining the appropriate knowledge with industry leading experts.