



HOSTING
TAKING YOU FURTHER

DISASTER RECOVERY

HOSTING & VMware® DELIVER DISASTER RECOVERY FOR ALL

Applications are, for most organizations, mission-critical assets—not just for the ongoing success of IT operations, but in a larger sense, the ongoing success of the business as a whole. That's why protecting applications as comprehensively as possible via a swift and prioritized disaster recovery strategy has become exceptionally important.

However, traditional disaster recovery is very costly, given the expense of deploying a second failover site with dedicated infrastructure, network connectivity between sites, and software licenses. In addition, setting up these plans is highly complex, because they must ensure the recovery of entire business services while also dealing with the many interdependencies between applications, hosts, network, and storage.

Management of recovery processes, for instance, is not entirely automated. The recovery process has a significant, even dominant manual element, making it far too unreliable, since it relies on runbooks, which are often incomplete and out of sync with rapidly evolving deployments.

Testing the recovery plan is also difficult. In fact, recovery plans often go untested, and also remain largely unchanged over time, even

though developments in the infrastructure or business strategies may require changes for the plan to execute properly and meet business goals.

Thus, should disaster of some sort actually strike, applications typically can't be immediately accessed or restored as rapidly, or as comprehensively, as the business demands. The possible consequences range from the relatively benign, like a temporary lack of team productivity, to the catastrophic, such as the extended downtime of revenue-generating services, a direct hit on the business bottom line, a widespread negative customer experience, and diminished brand strength.

For mid-market organizations in a difficult and unpredictable economy, such consequences are simply not acceptable.

Fortunately, with the advent of Cloud computing and public Cloud services, a superior option has emerged—one that offers swift, automatic, replication that was previously only available to the largest and best-funded organizations.

MANY MID-MARKET CUSTOMERS CONTINUE USING BACKUP TO DISK OR TAPE. DOING SO LEADS TO MANY PROBLEMS BEYOND SLOWER PERFORMANCE FOR BACKUP AND RECOVERY.

Today, thanks to a HOSTING solution powered by VMware® technology, a Cloud-based replication and recovery service is available to anyone who'd like to get enterprise-class business continuity with a mid-market price tag. By replicating core applications via HOSTING's Cloud Replication solution, small and mid-sized organizations can easily:

- Ensure fast and highly predictable RPOs and RTOs with automated failover to eliminate the risk inherent in manual processes
- Protect entire production environments
- Dramatically reduce the extent to which IT team members are required to manually supervise disaster recovery steps
- Replace traditional error-prone manual runbooks with automated centralized recovery plans
- Enable frequent non-disruptive testing of recovery plans to measure and document recovery time objectives
- Fulfill compliance requirements with documented recovery plans and test results
- Improve the customer experience for outward-facing services
- Improve employee productivity for internal services



How does Cloud Replication work? It leverages VMware's proven, robust VMware vCenter™ Site Recovery Manager 5 (SRM) solution. IT managers at client sites use HOSTING's intuitive, web-based customer portal to create, modify, and oversee replication and failover processes. Orchestration of these processes then takes place online. Tape is never used at any stage and replication is automated.

WHY IS THIS IMPORTANT?

Consider how it differs from the norm—and the benefits that difference implies.

In a typical mid-market scenario, organizations have a site, such as a data center, at which applications and data are currently backed up to disk or tape by archiving tools at regular intervals (usually in the middle of the night). This approach, though inexpensive in terms of media costs, introduces considerable delays after a disaster because of the time it takes for restoration. Another delay stems from the fact that the backup tapes should physically be moved offsite for safe storage (and, in the event of a disaster, physically moved back for restoration). Whether disk or tape, the entire process of restoring data is a time-consuming and resource-intensive process.

Complete virtual machines—the actual production environments driving key services—are typically not protected in this way. Should they fail, the overall recovery process would be complex, involving multiple stages, many of which would require direct oversight by IT. Re-creation of virtual machines, in particular, would need to happen before the applications and data from retrieved disk or tape could be restored to those machines and services could be brought back online.

All of these factors combine to reduce the total protection available to key IT services, increase the time needed to recover from an outage, and multiply the total negative business impact that such an outage creates.

Through HOSTING's Cloud Replication, the potential errors associated with manual processes are replaced by automated, accelerated processes that are entirely consistent. Data is copied via online replication from the client's site to a HOSTING recovery site or between two HOSTING data centers using VMware's SRM technology.

Furthermore, the data replication process used by Cloud Replication is progressive, meaning that once data is copied, it doesn't need to be copied again. Over time, only changes to the production environment are replicated to the HOSTING recovery site. This reduces the time, storage, and bandwidth required for replication processes and minimizes their effect on the client's IT infrastructure.

The frequency of the replication process is also configurable by the client; it can be set in proportion to business criticality. Data/applications seen as more critical can be replicated more often, resulting in greater protection. At any time, the replication frequency can easily be dialed up or back. And, of course, all of these processes are automatic and business transparent.

Still more compelling is the fact that should a disaster actually occur, IT services can be spun up, at truly incredible speeds. Production systems are quickly back online and the IT team can then determine the issues originating from the failed virtual machines.

Just how fast? The replicated VMs can quickly become a company's primary VMs following modifications to the DNS server. In fact, during disaster recovery testing, HOSTING's average customer sees an RTO of fewer than 15 minutes. Exact transfer rates will vary for different clients based on many technical factors, such as:

- The operating system used by the client's virtual machines
- The current computational load of the targeted virtual recovery server
- The number of such servers used
- The network performance between the client's site and HOSTING's site, particularly its bandwidth and latency

When bandwidth is not a limiting factor, these tests repeatedly show that data transfer involving the initial synchronization of Linux-based hosts can occur at rates up to 11 Mbps (megabits per second) per virtual machine. For Windows-based hosts, transfer rates are even faster—up to a stunning 19 Mbps. And even in the case of ongoing synchronization tasks, which are intrinsically slower, both Linux and Windows transfers happen in the range of 6-9 Mbps.

It also bears pointing out that raw transfer rates represent only part of total disaster recovery performance. There's also the fact that many delays in traditional mid-market, disk- and tape-based disaster recovery strategies stem from their manual execution, including potentially physically retrieving tapes from a secured offsite location.

HOSTING's one-click failover process requires only one decision from client IT team members—whether or not to execute—and even that can be handled by HOSTING if necessary.



HOSTING's storage-agnostic, hypervisor-level service also re-creates the complete production environment, instead of only applications or data. Additionally, because the failover process is completely automatic, it all but eliminates the unwanted, inadvertent errors that often stem from complex manual processes—recovering from which, through painstaking correction, can generate still more delays.

In short, HOSTING's Cloud Replication is, by any metric, far faster, more comprehensive, more procedurally consistent, and more straightforward than any business continuity strategy based on disk or tape backups.

And the implementation of the service is just as impressive as the service itself. Beyond the customer portal, HOSTING offers geographically dispersed, nationwide Cloud super sites for replication, and 24x7 support from 200+ Cloud and technical experts.

All of this shows why HOSTING has twice been cited in Gartner Group's Magic Quadrant for Cloud hosting—one of the most prestigious honors awarded to IT solutions and services. It's also why clients have entrusted HOSTING with protecting nearly 3.9 trillion files and applications.

If the technology of Cloud Replication strikes you as impressive, just consider the way that technology can lead, in very short order, to a range of business benefits. Collectively, these benefits will help you reduce costs and risks, increase revenues, and support key business strategies even as they change over time.

SUPERIOR SERVICE UPTIME, REVENUE, CUSTOMER EXPERIENCE, AND WORKER PRODUCTIVITY

When key IT services are better protected, they are also more available, meaning they generate their intended value a higher percentage of the time. External, customer-facing services, for instance, generate more revenue and a more consistent experience

for your customers—who are more likely to remain your customers as a result. Protected internal services will better support job-specific tasks across the organization, resulting in higher productivity from everyone who uses those services. The total new business value, added up over all contexts, is enormous.

SITE RECOVERY THAT JUST WORKS: FAST, COMPLETE, AND ENTIRELY AUTOMATIC PROTECTION OF APPLICATIONS AND VIRTUAL MACHINES

LOWER OPERATING COSTS AND RISKS THROUGH AUTOMATION

Automation, if applied intelligently to appropriate tasks, reduces the work associated with getting things done—and the costs that work would normally generate. Disaster recovery via Cloud Replication is an outstanding practical example of this idea.

And because IT team members no longer have to oversee complex replication or failover processes, they can instead attend to tasks of higher business priority (such as creating and supporting new services to fulfill emerging customer demand).

BETTER DATA PROTECTION AND SIMPLIFIED COMPLIANCE

Ask yourself this: How productive would your organization be if you were to lose critical data permanently? Via HOSTING Cloud Replication service, the odds of such a catastrophe occurring are much lower because the replication processes are not merely automated, but also easily configured and modified over time to suit changing circumstances.

As data becomes more critical, it can simply be replicated more frequently, thus reducing the maximum possible window of data loss. Compliance with government regulations that require sensitive data to be monitored and managed in particular ways will also often become much more straightforward.

EFFORTLESS TESTING DELIVERS PEACE OF MIND

Since processes are automatic and managed by the intuitive HOSTING interface, creating and modifying recovery strategies is both easy and fast. And testing those strategies in advance, to ensure they will actually work as intended, is as simple and business-transparent as their actual execution would be.

INVESTING IN SUPERIOR DISASTER RECOVERY STRATEGIES GENERATES A WEALTH OF BUSINESS BENEFITS



CUSTOMER SPOTLIGHT

“As a provider of Healthcare SaaS solutions used by managed care organizations and physician groups, we are required to ensure that our customers have uninterrupted access to critical healthcare data. To better serve the mission-critical needs of our customers, we needed a business continuity solution that provides availability, protection, and scalability.

We were challenged with a homegrown disaster recovery solution that was hard to maintain. We were looking for a leading-edge disaster recovery solution that leveraged the Cloud and ensured a high availability experience for our customers. HOSTING architected a solution for us using VMware’s SRM 5-based Cloud Replication capability to replicate our applications between two HOSTING datacenters. This solution provides us the ability to recover in the event of a disaster and have our customers up and running quickly.

In addition to seamless DR, through HOSTING’s testing capabilities we expect to meet our customers’ compliance requirements for testing and auditing disaster plans on a periodic basis—an important improvement in automation, ease of use, and defensible reporting.”

Senior Project Director from a Healthcare SaaS technology provider

SUMMARY

Protecting critical applications, data, and virtual machines—the complete production environment, in short—is more important than ever.

Through HOSTING’s Cloud Replication, mid-market organizations can implement an enterprise-class business continuity solution compatible with an existing VMware infrastructure at an impressively affordable price.

Furthermore, Cloud Replication can evolve in proportion to company needs. As the application and service portfolio becomes more complex, the service can be quickly and easily modified to address those changes.

Finally, it’s worth noting that the SRM technology that powers Cloud Replication is a proven solution that currently protects more than a million virtual machines, for more than 6,000 customers, every day.

By collaborating with HOSTING, you can experience that same protection—creating a fast, efficient business continuity strategy closely tailored to your organization’s specific context, and enjoying all the business benefits that strategy delivers.

ABOUT HOSTING

HOSTING is a leading provider of managed Cloud hosting services for mission-critical applications. With a unique lifecycle approach and the industry’s best team, HOSTING helps organizations design, build, migrate, manage, and protect their Cloud-based environments. Using enterprise-class networking and connectivity technologies, HOSTING provides the highest levels of availability, recovery, security, and performance. HOSTING owns and operates six geographically-dispersed data centers under an ITIL-based control environment independently validated for compliance against the PCI DSS and SOC (formerly SAS 70) frameworks. The company’s 4000 customers around the world represent a variety of industries including healthcare, retail, media-entertainment, financial services technology and government.

ABOUT VMWARE

VMware, the global leader in virtualization and Cloud infrastructure, delivers customer-proven solutions that accelerate IT by reducing complexity and enabling more flexible, agile service delivery. VMware enables enterprises to adopt a Cloud model that addresses their unique business challenges. VMware’s approach accelerates the transition to Cloud computing while preserving existing investments and improving security and control. With more than 300,000 customers and 25,000 partners, VMware solutions help organizations of all sizes lower costs, increase business agility and ensure freedom of choice.