drobo

Expanding SMB Virtualization to Include DR

Replication in smaller IT environments using Drobo iSCSI SAN and VMware vCenter Site Recovery Manager™ with vSphere Replication

Customer Challenge

Small and medium businesses have historically been unable to implement disaster recover (DR) with replication. They depended on backup alone, which cannot provide recover time that's fast enough. The fact is that DR is complicated—and even with dedicated experts on staff, small organizations cannot manage the complexity. The cost of duplicate hardware at two sites plus the cost of storage-based replication is another gating factor. Server virtualization initiatives, however, have been implemented in SMBs to reduce costs and to increase service levels. And this in turn creates new opportunity for those SMBs to look at DR.

Server virtualization provides a unique opportunity for greater flexibility and cost reduction. Management and orchestration can be performed from a central place with virtualization, allowing for a repeatable recovery plan that can be tested and demonstrated. Simplicity is key, with no need to rely on complex procedures and operations for recovery. What's more, server CPU and memory are abundant in the virtualization architecture, complemented by software solutions for replication. In summary, virtualization enables cost reductions in hardware and premium-priced storage replication for DR capabilities with dissimilar storage hardware.

The Solution

VMware Site Recovery Manager (SRM) was designed to simplify DR by eliminating complex runbooks and orchestrating the workflow of failover, enabling automation of processes in the workflow. New in VMware SRM version 5 is vSphere replication: a combination of an agent built into vSphere 5 and a replication management server licensed with SRM and running as a VM. With vSphere replication, you can asynchronously replicate VMs from one location to another without the need for storage array-based replication. The offsite location can be a second location or even a cloud provider.

By controlling the replication in software, customers can replicate between sites with dissimilar SAN hardware, which is not possible with array-based replication. Not only is primary storage more affordable, but the cost of storage hardware at the remote site is also more affordable. Since most SMBs cannot afford duplicate hardware at two sites and really want DR only for a select subset of applications while they recover the primary site. Operations such as migration of VMs between sites for maintenance and testing is simplified once SRM is in place, a big benefit for SMBs as these operations certainly occur more frequently than unplanned disasters.

Highlights

- Simple and reliable disaster recovery protection for virtualized applications
- Superior recovery time and recovery point with replication vs. backup alone
- DR for VMs between dissimilar storage devices or across Drobo storage systems
- Simple, centralized management of the recovery and migration processes without runbooks
- Non-disruptive testing of site recovery and planed migrations
- Sophisticated yet affordable disk for recovery and Tier 2 in any environment

vmware® READY

What You Will Need

Comparing SAN solution alternatives for VMware SRM, storage-based replication has higher cost and greater complexity.
Leveraging vSphere replication with Drobo offers similar capabilities at a lower cost with the ease-of-use of Drobo® and BeyondRAID™.

What You Need	SRM with vSphere Replication & Drobo SAN	SRM with Storage-Based Replication
12TB of iSCSI SAN storage for remote site	**40-70% lower cost** by leveraging host-based replication and efficient storage	Requires identical, higher-cost hardware at both sites, as well as storage replication licensing
The Big Difference	**>$20,000 lower to start**, both software & hardware have the best ease of use on the market	Requires understanding and expertise in storage-based replication, no BeyondRAID

Tested DR solution using Drobo iSCSI SAN and VMware vCenter Site Recovery Manager with vSphere Replication.
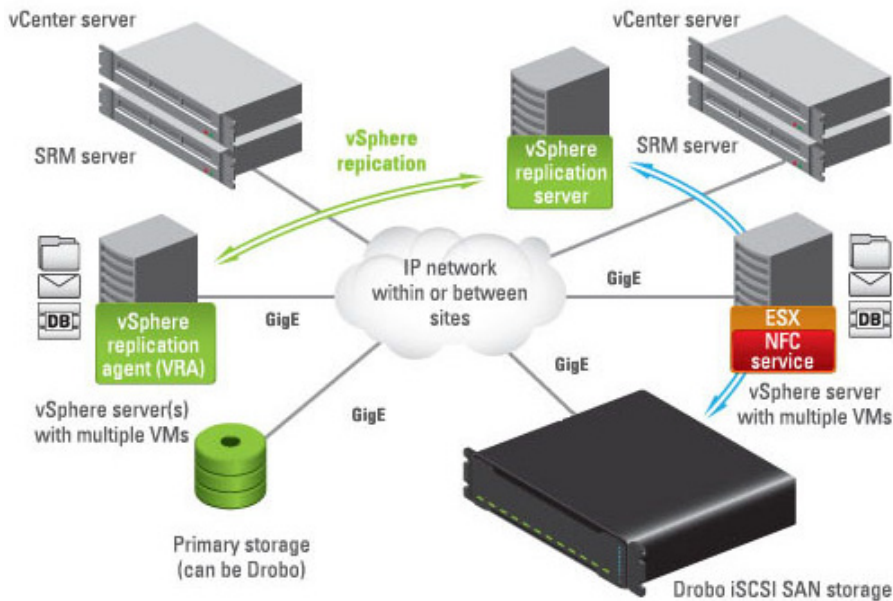
Where Drobo is Different

Protecting data is important, but cost and complexity prevent small companies and departments from deploying DR, because even the lowest-cost iSCSI storage and entry licensing storage replication are expensive by most measures. Backup alone cannot provide for rapid failover or recovery from a disaster, but DR for VMs can now be done affordably across Drobo storage or from other storage to Drobo using vSphere replication and SRM.

Drobo provides superior data protection with BeyondRAID technology in a package that is very affordable. Without the cost burden of built-in features, customers have the freedom to combine best-of-breed technologies that are tailored to their requirements. Combining Drobo as dissimilar storage in a vSphere replication solution means lower procurement cost and even lower cost to grow and manage over time.

Drobo's incredible ease-of-use represents a huge opportunity to save on operating costs. Both VMware SRM and Drobo offer IT managers cost advantages with sophisticated automation for any sized deployment. For smaller organizations that are especially challenged by budget and complexity, Drobo is the perfect storage solution, allowing them to spend time and energy on applications not infrastructure. For larger organizations, Drobo is a great fit for Tier 2 applications and for smaller departments that need onsite or offsite storage.

More Information

Solution materials, including a detailed how-to guide and the webcast replay with an expert guest @
www.drobo.com/solutions/for-business/vmware-srm.php
Want to talk about it? Live experts from Drobo @ **www.drobo.com/live**
Want to buy it? Ask your preferred reseller, or visit **www.drobo.com/where-to-buy/index.php**

How To Build It

To enable migrations, DR testing, and DR failover with automation:

1. Install Drobo Dashboard on management server (can be on management server or a VM).
2. Deploy SAN storage device, easy automatic setup with Drobo, configure smart volumes.
3. Using wizard-driven process, configure connection pairing in Site Recovery Manager.
4. Set up inventory mappings for recovery site resources for folders, networks, resource pools.
   Make placeholder datastore on the Drobo accessible to servers at the recovery site.
5. Set up protection group(s) covering entire datastore and all VMs for desired group.
6. Specify recovery plan and customize recovery for individual VMs.
7. Configure priority groups and dependencies.
8. Test and execute recovery plans, you now have DR that is simple and affordable!