



## VM HA Can Be Easy & Affordable for SMB

### Using affordable yet sophisticated Drobo shared storage to maximize high availability for Microsoft® Hyper-V™

#### Customer Challenge

Businesses of all sizes receive great benefits from virtualizing their servers, and many small businesses have already consolidated servers using virtualization. Depending on the hypervisor, there can still be significant costs when it comes to high availability features such as failover and live migration. In addition to these software costs, dependencies on network and storage infrastructure can be a limiting factor for smaller organizations. When choosing a virtualization strategy, SMBs often consider deploying a SAN for the first time, and they find that networking and storage costs are greater than the savings from lower server costs.

The right infrastructure to support server virtualization enables higher availability, which justifies the investment. With comparable TCO, uptime for

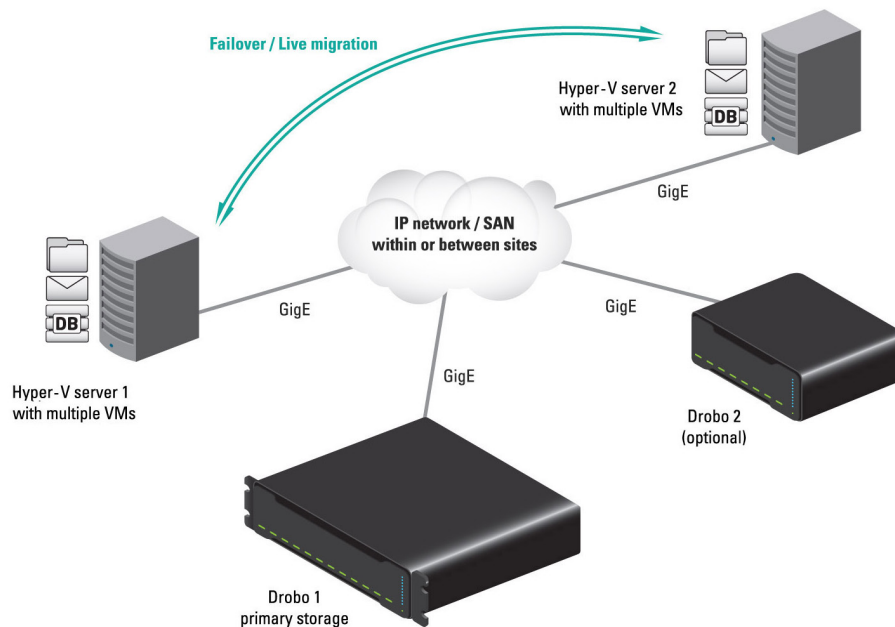
applications is dramatically increased. Every IT manager at a small company can also benefit from the time and effort savings enabled by virtualization. Maintenance and testing are typically performed on weekends and during off-hours (often in the middle of the night!) to avoid affecting application uptime. Planned downtime can be reduced or even eliminated via live migration, allowing IT managers in smaller organizations to do more of their work during working hours without impacting application uptime.

#### The Solution

Shared SAN allows all servers to see the same storage, enabling movement of VMs and applications across redundant server infrastructure. This architecture opens up tremendous flexibility and IT managers can move applications without impacting user access or uptime.

This is a life saver when it comes to maintenance—move a VM and application, perform maintenance, migrate back—without users even noticing. Without a SAN, VMs are limited to one physical server and its direct-attached storage, and are subject to downtime for maintenance or even extended downtime in the event of a failure.

Since Hyper-V is part of Windows Server 2008 R2, it provides great value to SMBs who can continue to leverage their individual skills with a minimal learning curve. Customers can use a single set of tools to manage both their physical and virtual resources. It easily plugs into customer IT infrastructure, because existing patching, provisioning, management, support tools, and processes can all be leveraged. Drobo storage integrates just as easily, with no learning curve required to manage SAN storage.



#### Highlights

- iSCSI SAN to maximize the value of Microsoft Hyper-V server virtualization
- Gives small companies and departments high availability starting at under \$10K
- Storage and virtualization designed for the easiest possible management
- High availability eliminates unplanned downtime via failover clustering
- Enables easy planned live migrations for maintenance or test & development
- Drobo B1200i certified for Windows Server 2008 R2, ready for Hyper-V

Microsoft®  
Hyper-V Server 2008 R2

## What You Will Need

Comparing iSCSI array options an SMB might consider to support their server virtualization environment.

What You Need	Drobo 12-bay SAN Storage for Business	SMB next-gen. GbE iSCSI SAN arrays
SAN storage, min. of 8 or 12TB each with 3-year support	Less than half the cost, aligns with the small configurations used by SMBs	> \$25K for each array in entry configuration, up to 16 servers
The Big Difference	> \$10K lower, with live migration and failover built into the hypervisor	Higher cost to scale storage over time, locked into specific drives

## Where Drobo is Different

SAN storage is a must if you want to maximize mobility and availability for Hyper-V. Fibre Channel SANs have a high entry cost, preventing companies with smaller configurations and budgets from participating. iSCSI can be lower in price, but many iSCSI arrays still cost several tens of thousands of dollars for each system and are considered high-cost by most measures. Vendors claim that iSCSI arrays are easy to use and deploy, but most are built with large enterprises in mind.

Drobo provides superior data protection with BeyondRAID™ technology, in easy-to-use and affordable packages that are especially designed for SMBs. With failover and live migration built into Hyper-V at no additional cost, customers can buy two iSCSI SAN arrays for disaster recovery (DR) for less than half the cost of most midrange iSCSI arrays. With Drobo, there is no reason you cannot reap the benefits of a highly available virtualized environment.

## More Information

Solution materials, including a detailed how-to guide and the webcast replay with an expert guest @ [www.drobo.com/hyperv](http://www.drobo.com/hyperv)

**Want to talk about it?** Live experts from Drobo @ [www.drobo.com/live](http://www.drobo.com/live)

**Ready to buy?** Ask your preferred reseller, or visit [www.drobo.com/where-to-buy/index.php](http://www.drobo.com/where-to-buy/index.php)



Drobo B1200i front (left) and back (bottom)



## How To Build It

To provide HA in a VMware environment in one working day:

1. Install Drobo Dashboard on management server (can be on a VM).
2. Deploy iSCSI SAN storage, easy one-click setup with Drobo, configure SmartVolumes.
3. If not already complete, enable Windows Clustering and Hyper-V
4. Configure the iSCSI Initiator, activate and format Drobo volumes
5. Configure the Microsoft cluster and provision Hyper-V Virtual Machines
6. Test a live migration, you have mobility and HA!

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