

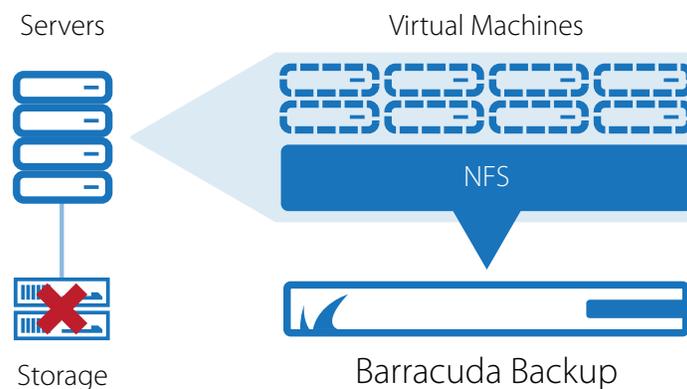
Solutions Brief

Understanding LiveBoot Recovery

The expansion of virtualization has brought reduced costs, power and cooling savings, and simplicity to managing multiple servers, but a significant issue has surfaced in virtual deployments. Storage use in virtual environments tends to be single SAN/NAS devices partitioned for different resources. If the device goes down for any reason the entire virtual environment is rendered useless, leaving the IT department scrambling. Many larger organizations can afford redundant storage and have multiple host servers in case of a hardware or an entire site disaster. However, these items are luxury expenditures for most organizations and are not common for deployment in small and medium businesses. While the issue of hardware storage single-point of failure has not slowed virtualization adoption, it has brought additional complexities to virtual machine protection.

Barracuda Backup with VMware vSphere integration provides an easy way to recover data in case of a disaster with a storage device. With firmware version 5.0 and higher, Barracuda customers benefit from Barracuda's LiveBoot technology. With LiveBoot, customers protecting their VMware environment with Barracuda Backup through a vCenter/ESXi host can use the local Backup appliance as a temporary storage location, while the primary storage device is being fixed, as shown in Figure 1.

Figure 1.



With VMware integration, the local Backup appliance shows as a new datastore and can be viewed in vSphere client, as shown in Figure 2. The local Backup appliance uses network file system (NFS) to act as storage for an ESXi host machine(s). Since the ESXi host will continue to handle incoming connections and resources including CPU, network, and memory, the VM running on the Barracuda datastore will run with little impact to normal backup and restore operations. The LiveBoot operation is available to the end-users accessing the VM after only a few minutes. Barracuda can display needed VM parts without recovering the entire VM at once, reducing recovery time. This allows organizations to be up and running with a “spare tire” while they get their primary storage up.

Figure 2.

Datastores		
Identification	Status	Device
bbs_484205_1_2014-02-24.15:06:03	✓ Normal	10.66.32.250:/ma...
secondary (raid10)	✓ Normal	Local Adaptec Disk..
vm-storage-SE	✓ Normal	Local Adaptec Disk..

Once the production storage is fixed, it is extremely easy to get the updates and changes since the outage back to production. Organizations with VMware vMotion licenses can migrate the VMs LiveBooted on the local appliance to other storage. With a few clicks in vSphere, the VM can move between datastores without shutting them down while running vSphere version 5.0+, as shown in Figure 3. Organizations without VMware vMotion licenses in their environment can migrate the VM images from Barracuda Backup by shutting down the VM and migrating the VM between datastores.

Figure 3.

Recent Tasks			
Name	Target	Status	Details
Relocate virtual machine	Liveboot	40%	Migrating the active state of Virtual Machine

Organizations replicating between two Barracuda Backup appliances can run VMs in LiveBoot from either location. This provides an affordable method to securely replicate VMware backups between sites to recover in case a site goes down, as shown in Figure 4.

Figure 4.

