



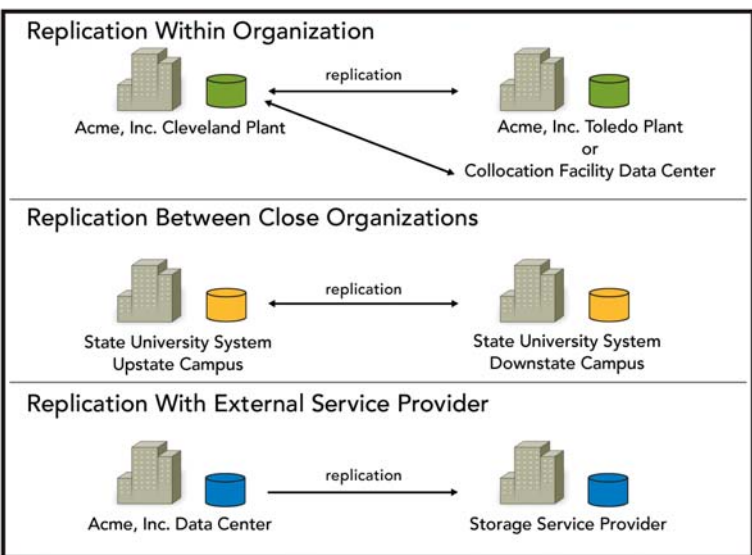
## HOSTED ENVIRONMENTS: TODAY'S STORAGE SERVICE PROVIDER ENABLES AFFORDABLE DISASTER RECOVERY

Today's interoperable, easy-to-use, replication-included SANs make DR much more affordable by enabling organizations to leverage existing relationships instead of completely duplicating data center infrastructure.

Whether within an organization or with a service provider, organizations can implement affordable DR solutions easily.

Many enterprises have been prohibited from implementing a disaster recovery (DR) plan by high costs. Regardless of organization or department size, creating a remote infrastructure can be expensive – especially if it requires completely duplicating your primary application environment. Virtualization has eased the expense for servers, but storage (a critical component of any DR plan) has remained a challenge. Advanced DR environments require storage replication – but some vendors charge for replication per device, driving up costs regardless of whether you replicate few applications or many. In addition, DR implementations have historically been difficult to set up and operate – as a result, many DR plans are not implemented due to cost and complexity.

But today there is a new generation of SAN storage arrays whose features make disaster recovery broadly available. This new generation is affordable, scalable, and provides data replication as a standard product feature, with no licenses or keys to buy and manage. And to accompany affordable replication, this new generation of arrays provides broad interoperability and robust security mechanisms that allow sharing and delegation of control while ensuring security and privacy. The result is a new deployment model for IT departments – replication service providers.



### NOT YOUR FATHER'S STORAGE SERVICE PROVIDER

The concept of providing storage services originated in the 1990s with the proliferation of fiber channel SANs. Storage service providers expected companies to outsource core IT infrastructure to reduce complexity and management burden. But the market never grew as expected, mostly because few companies were willing to put their critical assets in someone else's hands.

Today, a much more natural storage service provider model has emerged. A new generation of interoperable, affordable, replication-included storage arrays has enabled many companies to initiate disaster recovery simply by taking advantage of existing relationships. Using these arrays, organizations can replicate between internal divisions or locations; for example, Acme Company might replicate between arrays at its Cleveland headquarters and Toledo manufacturing plant. Some companies will set up replication between their data

center and a collocation facility, using company-owned equipment at both sites. Others maintain a primary SAN in their data center and replicate to a service provider's compatible storage in the service provider's data center. These service providers have full suites of management and services specifically built around facilitating all three of these methods with EqualLogic PS Series storage.

This affordable and interoperable storage supports many types of business relationships. Replication partners may consist of two departments within a company, or sister organizations such as two colleges in a state university system, or two companies that have an existing relationship, or even a company and an outside partner. These are mutually beneficial situations – if I have an EqualLogic SAN and so do you, with little effort, no added expense, and effective security, we can act as disaster recovery sites for each other.

This implementation is practical because EqualLogic arrays enable you to share capacity while retaining your isolation, privacy, and security. With the PS Series' delegated management model, it is simple to configure your SAN to share some areas while keeping others completely walled off. A PS Series SAN administrator can provide disk space for a remote replication site without having to provide management access or privileges on their SAN. The local administrator retains full control of the SAN while making disk space available for remote site DR data copies.

## TRY IT, YOU'LL LIKE IT

One benefit of this method is that it can be started slowly. You can set up a replication relationship with another department and see how it works without a big investment. Other vendors might charge \$50,000 to add replication capability to each of your SANs – that's a lot of money if you initial needs are small. Instead, EqualLogic lets organizations start sharing with a replication partner based on current needs, evaluate the situation, and then expand. Because growing your primary or replication sites is not a painful and disruptive process, the ability to start slowly makes DR a viable option for all organizations – whether for better data protection or a new revenue stream.

Disaster recovery has become an imperative for protecting business operations. Cost effective replication solutions make DR possible for both traditional and virtualized data centers by reducing costs and complexity. Affordable, scalable storage arrays like the PS Series that interoperate securely and include replication functionality have re-defined the service provider model, bringing it closer to home while making it safer and easier to implement.

## DISASTER RECOVERY IN SAN ENVIRONMENTS

	Traditional SAN	Virtualized iSCSI SAN
Dedicated remote SAN, identical to primary data center	Required	Not required
Additional software licenses	Required and expensive	Features included – no licenses needed
Ability to service multiple clients on same remote SAN	Not supported	Supported with delegated management
Additional network infrastructure	Required for Fibre Channel	Can use existing WAN links
Able to expand/upgrade each site independently	Limited, if any, independent upgrades	Yes – easy and affordable



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