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The Essentials Series: Managed Application
Failover for the SMB

Implementing Business Continuity Services for SMB

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by David Chernicoff

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Implementing Business Continuity Services for the SMB

Business continuity is a topic that is often discussed but rarely acted on in any meaningful way in the SMB space. Traditionally viewed as a large-scale enterprise task, business continuity and disaster recovery services are in some ways considered the pinnacle of IT tasks, with their goal of allowing a company to continue to operate after problems that would have brought down a lesser business entity.

What Is Business Continuity?

Business continuity is the process of keeping your business processes up and running in the face of situations that would otherwise shut down the business. Preventing the shut down of operations in the event of unforeseen disruptions requires several currently-available technologies. None of these technologies are simple to implement or inexpensive to support, requiring specific hardware and expertise in their use:

- Mirroring
- Clustering
- Replication

By utilizing these technologies, it is possible to build a computing environment that has a high level of durability and is unlikely to suffer a disruption sufficiently serious to bring down business operations.

Why Business Continuity and Disaster Recovery Are Important in the SMB Space

Both the IT and business management sides of a business are well aware that they cannot afford to have line-of-business and mission-critical applications and services unavailable due to an unforeseen circumstance, be it the failure of a piece of equipment or a natural disaster. How to deal with these potential problems is the crux of the matter.

In a large enterprise data center, there is usually a multi-tier data center protection process in place to provide disaster recovery, high-availability, and business continuity capabilities to the enterprise. Making use of the variety of technologies available, these data centers have the internal technical expertise as well as the physical infrastructure setup to allow for everything from a planned server shut down for maintenance to an unforeseen natural disaster, while providing as close to 100% availability as possible. Most SMB-sized businesses want this capability, but few can actually afford the expense it entails.

Making Business Continuity Affordable

In the SMB space, the closest most businesses come to disaster recovery or business continuity planning is putting in place a regular and reliable backup process. This may even include managed backup to an offsite location, providing a higher level of data protection than a single site provides, but still doing nothing about the actual availability of the applications that produce or use that data.

In an enterprise data center, the likely solution is an off-site data center that makes use of replication and failover technology to provide a high-availability solution to the business continuity problem. But this is a complex and expensive proposition that requires significant capital investment and the acquisition of pricey IT personnel necessary to successfully implement a failover solution for servers and applications.

For many small and medium-sized businesses, the cost of implementing a replicated failover/high-availability solution may exceed the budget, as it is necessary to invest in the hardware you plan to replicate, additional licenses for servers and application software, the communications infrastructure, and the expertise to design, install, and maintain the environment. All these costs are in addition to the operational costs of maintaining a physical failover site.

The Alternative: Implementing Business Continuity/High-Availability as a Managed Service

Fortunately, it is possible for the SMB customer to enjoy a business continuity solution by selecting a Managed Service Provider (MSP) to deliver a remote failover/high-availability solution to their IT department. This method can give the SMB-sized business all the benefits of an enterprise-class disaster recovery/business continuity solution delivered as a service, typically using an affordable monthly subscription model, similar to your phone and electric services. Thus, there is no upfront investment in building the infrastructure necessary to deliver these capabilities to the business, a financial hurdle that is difficult to overcome in the SMB space. In addition, the ongoing fixed-price service is an operational, and not capital, expense, which makes budgeting even easier, as all costs are known up front and do not change unless the service is changed.

There are a number of MSP solutions that offer pieces of this puzzle: offsite storage and backup services that use agents on your clients and servers to back up data from your site to theirs. Although this model offers a modicum of disaster recovery capability, it does nothing for availability and business continuity services. You need to ask yourself, can my business afford the downtime it will take to recover from an offsite backup? If the answer is no, search for MSPs that offer full-fledged business continuity/high-availability services as their primary business.

The MSP that you select should be able to offer you high-availability data centers, in the best case, replicated themselves, as well as a history of providing these services internally and externally. Reliable software with support for your common operating systems (OSs) and applications is absolutely essential.

Understanding Your Business Model

The MSP that you select needs to be able to fit into your current IT environment. A quality MSP will be able to offer support for major file server, database, and email applications and servers as well as applications built on top of those services. This includes being able to support virtualized environments, with virtual servers becoming such a large part of the data center.

The MSP will offer a solution that enables file and application data replication, typically over the WAN using a Virtual Private Network (VPN) solution for security, from your existing network to their hosted backend servers, which are similarly configured to your production servers. Their data centers will effectively become yours to use when needed, for a monthly fee, and offer you a level of disaster recovery and/or high-availability services that would otherwise be prohibitively expensive.

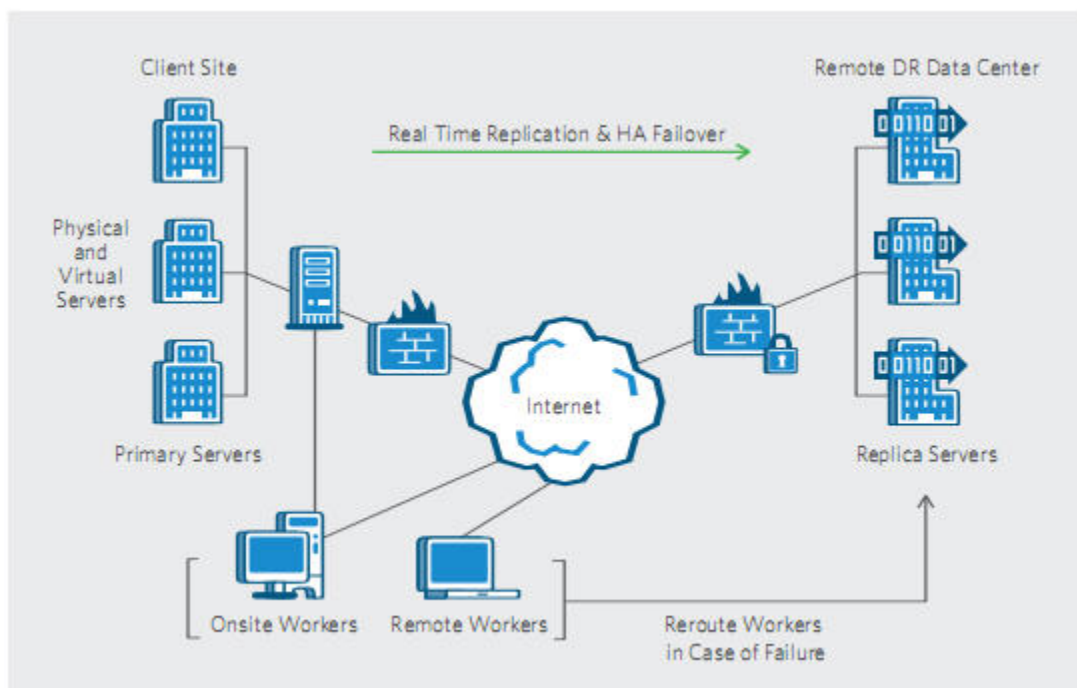


Figure 1: Overview of an MSP-provided business continuity/high-availability solution.

The MSP needs to be able to fit into your business process as seamlessly and transparently as possible, adding their services as a benefit to your existing IT environment. Thus, you should look for the following key features for a business continuity/disaster recovery MSP:

- Complete site survey prior to installation—The MSP should be able to work with you either remotely or onsite to determine exactly what services and level of service needs to be provided to meet your requirements as well as to evaluate your current infrastructure as a suitable candidate for their services: having sufficient network bandwidth available to the Internet and any other conditions that must be met for their solution to work
- Automated testing of your failover environment that doesn't impact your work environment or disrupt the continuous replication protection. Being able to periodically test your failover environment is an important part of this hosted service.
- Zero reboot installation—You should not need to shut down your servers to install their replication software
- Automatic updating—The MSP-provided software should automatically be updated and patched when new versions are released without impacting your operations
- Custom scripting—The MSP service can be tailored to your environment, preventing your business model from being squeezed into a “one size fits all” service offering
- Easy access to MSP support—Support from the MSP should be easily available and matched to your business operational needs; if you run 24/7, so should your MSP's support

Conclusion

Consider the cost of lost opportunity to your business: How much does it cost your business or organization to be down for an hour? A day? A week? What impact does being down have on your workforce and your customer base?

A simple backup plan will protect your business from simple problems. It is not, of itself, a solution for business continuity or high-availability of services on a day-to-day basis. SMBs can now benefit from the same fully-replicated, high-availability solution that large enterprise organizations use to protect their business, in a manner that meets their budget and resource constraints. In the SMB space, the business that plans for the future and knows that keeping their services available to their workforce and customers is the one that will have the greatest chance to survive and grow, especially in economic and competitive times like these.