Last fall, businesses of all sizes received a stark reminder of what can happen when a natural disaster strikes a highly populated, business-centric region. Superstorm Sandy did enormous damage, leaving countless companies without electricity for days and, in some cases, weeks.

Many of the businesses affected by the storm and its aftermath were small companies, caught unprepared for the lengthy power outages and system downtime. The result: inconvenienced customers and lost revenue.

Events such as Hurricane Sandy demonstrate why it’s so critical for small and medium-sized businesses (SMBs) to have a business continuity (BC) and data backup strategy in place. Given how much companies rely on systems and access to information, an inability to quickly recover from a natural or man-made disaster can lead to huge losses.

That means businesses need to plan not just for the big weather-related events that generate headlines because of the large number of people they affect. Most disasters, in fact, are caused by human error, computer viruses, server crashes and other factors.

So what can SMBs do to prepare for unexpected events that could bring down their systems for long or short periods of time? For many, the answer is in the cloud. More specifically, hybrid cloud services offer an ideal delivery mechanism for BC and data backup capabilities.
This white paper describes why hybrid cloud computing makes sense, and how it can help smaller businesses ensure that they have the resources in place to keep operations going and customers satisfied, even when the unforeseen happens.

Cloud Is Good; Hybrid Is Better

In most cases, SMBs do not have the same level of IT resources as larger enterprises. Oftentimes, they have to run their technology operations with limited staff and budgets. But smaller businesses do have something in common with enterprises: a critical need to protect technology resources and ensure that they can bounce back quickly from an event that interrupts operations.

Business continuity and data backup provided via the cloud can reduce the overall costs of protecting systems, relieving the financial burden on SMBs. Having easily accessible, off-site systems on hand gives SMBs assurances that many basic business operations can continue in the event that main servers go down due to a power outage, flood or other scenarios at headquarters or the central data center.

Improved virtualization technology and the cloud have made remote data backup and recovery a more feasible option for many businesses, with the virtualization of servers and workstations allowing for continuous uptime. The virtualized servers, or virtual machines (VMs), are basically copies of servers or workstations that run on the hardware of a cloud server, rather than on the hardware of the original production machine.

The VM is booted from a production machine’s backup file that is housed in cloud servers. Once it is booted, every aspect of the VM (including the operating system, applications and files) will run exactly like the original machine did.

How Data is Secured in the Hybrid Cloud
As Forrester Research noted in a recent report, there are clear financial implications for using the cloud for BC, data backup and disaster recovery. “Today, cloud-based [recovery] is poised to shake up legacy approaches and offer frustrated infrastructure and operations professionals a great alternative,” Forrester reported. “Instead of enterprises buying resources in case of a disaster, cloud computing and its pay-per-use pricing model allows them to pay for long-term data storage while only paying for servers if they have a need to spin them up for testing or in the event of a disaster.”

According to the firm, such an approach can reduce costs for companies while allowing a faster time to recovery than what is possible with tape backup.

Within the cloud computing realm, hybrid models combining private and public cloud deployment are particularly well suited for BC and data backup capabilities.

The reason for this is that building an internal private cloud and relying solely on that for business continuity would be extremely expensive to implement and maintain, and would also require skilled engineers to manage the network. Public cloud services, on the other hand, are more affordable but also present potential drawbacks, such as a lack of control over data center resources, monthly fees and increased support costs.

With a hybrid cloud, parts of both cloud models are combined to create a single, unified platform, so a company can own some local hardware that is integrated with resources owned by a third party. Initial investments are low with hybrid clouds, and businesses don’t need to own all of the essential pieces of the platform. There is no costly maintenance, and power, cooling and physical maintenance costs are lower.

**An Effective BC Solution**

There are solutions available that enable SMBs to provide affordable BC and data backup, so they can quickly and seamlessly gain access to critical data in the midst of a business interruption, such as loss of power.

For example, Datto Inc. offers Datto SIRIS, the only product on the market that provides instant on-site and off-site virtualization, screenshot verification of backups and business continuity from a single management interface.

When a company’s servers go down for any reason, Datto SIRIS can have systems operating within seconds with Instant Virtualization. The system safeguards against data loss and costly downtime using an innovative technology that simplifies the backup and recovery process.

By employing proprietary Inverse Chain Technology™, Datto SIRIS eliminates the inherent inefficiency of traditional backup solutions. It takes data directly from a server and converts it into VM readable files that can be booted instantly from a Web interface, or by using any common hypervisor. This allows for instant on-site and off-site recovery and can prevent businesses from having to experience downtime in the event of a disaster.

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With the Datto SIRIS system, the most recent backup image is always the base image. Since each backup is a fully bootable VM, there’s no need for a conversion to occur before performing a restore.

With no complicated rollup or restore processes, data is always available immediately both on-site and off-site. Backups can be virtualized either locally on a Datto SIRIS device or remotely, in Datto’s secure cloud. Even if a company’s local Datto SIRIS hardware is destroyed, Datto SIRIS can provide instant VMs from the cloud.

Datto solutions are designed around a hybrid cloud platform, the most reliable and efficient way for users to back up their data securely and ensure that it is recoverable, regardless of the reason for the downtime.

**Weathering the Storm**

Datto’s solution proved invaluable in helping the company’s partners during Hurricane Sandy. With its headquarters located in the storm’s path, Datto first ensured that it was prepared to support partners by informing companies of the steps they needed to take in advance of the storm.

Datto advised businesses to make sure that their systems were ready to be virtualized off-site in case their infrastructures became unavailable during and after the storm. Next, a full crew of Datto employees was assembled to staff its Cloud Operations Center in Reading, Pa., and its Technical Support Staff.

By Oct. 29, when Sandy made landfall, Datto was ready with a full team that ensured that operations were never interrupted throughout the storm and that partners always had assistance available.

During the storm, through Datto’s newly launched Direct to Tech™ initiative, partners were able to have direct contact with technical support representatives. Due to the large number of trained employees available, virtualizations were handled as fast as they came in.

Using Datto SIRIS, ACE IT Solutions, a partner with operations in northern New Jersey and New York City, was able to bring up a financial services client in lower Manhattan. Datto’s team created 15 virtual private network logins into the Datto cloud, which ACE was able to provide to the clients’ employees for access.

Another partner, Greenwire Solutions in Scarsdale, N.Y., has a client in New York that assists adults with special needs. The client’s server room was under five feet of water due to storm surge, and its VMware server and other network equipment were destroyed. After coordinating with Datto technical support to NAT the VMs to a public IP address, Greenwire was able to instantly virtualize the client’s server through Datto’s portal, and the server was ready for production. The next morning, the client was running its business in the cloud while its servers still sat under water.

The challenges of protecting systems and data have become far more complex for companies as IT infrastructures have expanded, and the risks of not having adequate business continuity and data backup strategies have increased dramatically.
For many SMBs, traditional BC and backup solutions might have been sufficient in the past, but they no longer provide the assurances businesses need in today's environment. With the availability of hybrid cloud-based services and the latest virtualization technology, companies can launch an intelligent BC and data backup plan that fits within the IT budget of a smaller business and takes the risks out of data protection. For more information on Datto's hybrid cloud-based backup and BC services, visit www.datto.com.

About Datto

Datto Inc. is an award-winning vendor of backup and disaster recovery (BDR) and intelligent business continuity (IBC) solutions, providing best-in-class technology and support to its 5,000-plus channel partners throughout North America and Europe. Datto is the only hybrid-cloud BDR/IBC vendor that provides instant on-site and off-site virtualization and screenshot backup verification, serving the needs of small to medium-sized businesses.