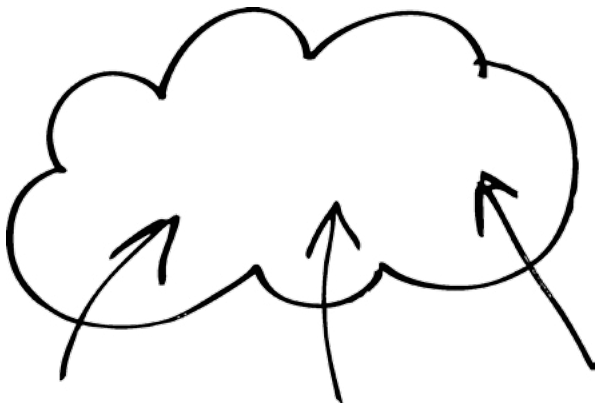


ELECTRIFY YOUR
BUSINESS WITH
THE CLOUD



White Paper

Cloud Up Your Business Day

*How cloud technology can enhance the availability,
continuity and reliability of your business*

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CLOUD UP YOUR BUSINESS DAY

How the cloud can enhance the availability, continuity and reliability of your business

Cloud technology can be a daunting idea to digest, but similar to the monsters you thought were under your bed as a child, there's nothing to be afraid of. The cloud is part of our everyday lives; it can be found in Facebook or LinkedIn, in the e-mail checked on a smartphone, and in an online shopping cart. For example, when shopping online, the password and username are saved along with all of the items in the shopping cart, which can then be accessed through any device that is connected to the Internet. With features such as scalability, rapid provisioning and pay-per-use spending, cloud technology can be just as seamless and effective for corporate use and presents an attractive solution to business owners.

With built-in redundancies and high availability features inherent in most cloud solutions, many forward-thinking companies are learning that cloud technology is capable of more than just anytime, anywhere access to company information and applications. It can also play an integral part in a business continuity plan by delivering effective hosting, backup and disaster recovery.

ONSITE SERVERS VS. THE CLOUD

Possibly the best part of cloud business services is that the complexity of maintaining the technology rests on the shoulders of the cloud provider, allowing users to focus on the hats they wear best. Additionally, a move to the cloud is generally smooth with implementation requiring little to no downtime; and with a short learning curve, the workforce can be up and running quickly. The cloud makes business transactions and information transfers accessible anywhere a user has an Internet connection.

Unlike a corporate onsite data center, a virtual server is hardware independent, the operating system (OS), applications, patches, and data can be transferred without needing to reload each component of the server, saving valuable time. Moreover, if a server fails on the end of the cloud provider, users will most likely never even know an outage happened, allowing them to work seamlessly through the outage. Since many cloud solutions are hosted in regulated data centers, companies who choose to work this way reap the benefits of an enterprise-class infrastructure with features such as failovers, multiple redundancies, power outage protection, climate control and high security elements.

Businesses that rely solely on an onsite server may suffer more headaches in the form of frequent or periodic downtime and stringent upkeep requirements. Servers are expensive pieces of hardware that require maintenance, proper cooling, and electricity. They also must be upgraded every three to five years for maximum profitability. This is neither a cost effective nor logistically sensible way for a small to mid-sized business (SMB) to manage their IT.

SMBs are able to adjust to changing technology because they are not bound by the many protocols that larger companies have. So why is it that some organizations continue to operate by housing all their hardware on premise? Perhaps it's the fear of relying

on technology that they can't see, touch or feel to house their business' precious information? In this case, a hybrid solution can be very attractive.

HYBRID CLOUD SOLUTIONS

Hybrid cloud solutions combine physical onsite hardware with cloud-based services. With this approach, businesses keep some resources onsite while others are provided externally. While onsite devices leverage frequent backups and quicker onsite recovery, these can now also be sent to the cloud, producing a versatile environment capable of greater amounts of recoverability. Recovery points are often customizable to a user's needs and can frequently be made available to within an hour, every hour, from both the local device and the cloud repository.

The hybrid approach allows businesses to take advantage of the scalability and affordability of a cloud-environment while maintaining certain aspects of the organization's infrastructure in-house. According to the Spiceworks survey*, hybrid backup cloud solutions are growing in popularity among SMBs, as more and more they begin to adopt technologies such as replication, snapshot, deduplication and compression.

Numerous cloud options are available to help businesses better manage data loss and disaster recovery. In order to increase efficiencies and improve spending investments, small and mid-sized businesses need to seriously consider cloud solutions, whether purely cloud-based or a hybrid solution to supplement, or even replace, their dusty onsite, hardware-based solutions.

BACKUP AND DISASTER RECOVERY THROUGH THE CLOUD

According to the National Small Business Association's *2013 Small Business Technology Survey*, 43% of small firms were using the cloud at

HOW SMB'S ARE BACKING UP

From Spiceworks survey, "How SMBs are Backing Up: Solutions, Trends & Challenges", March 2013

44% of SMBs surveyed have implemented a cloud or hosted backup solution or will in the next 6-12 months.

46% of SMBs surveyed have opted for a private cloud solution for backing up their data.

31% of SMBs surveyed have opted for a hybrid cloud solution for backing up their data.

23% of SMBs surveyed have opted for a public cloud solution for backing up their data.

42% of SMBs surveyed felt that their current non-cloud DR plan was less than sufficient.

54% of SMBs surveyed did not have a DR plan because they felt there was no budget for it.

45% of survey respondents state they've already experienced a data loss.

54% state data loss stemmed from hardware failure, while 28% claim it was human error.

To learn more, visit:
<http://www.spiceworks.com/voice-of-it>

the time of the survey, compared to just 5% in 2010. Although this statistic shows that more and more small- and mid-sized businesses are using cloud technology in some aspect, 58% of SMBs are still using direct-attached storage (DAS) or an external hard disk as their preferred method for backing up high sensitivity data, whereas just 24% are using a cloud-based or hosted backup service*.

With the right technology and migration plan in place, the cloud can be a very appealing, cost-effective and flexible option for data backups and recovery. Overcoming the fear of the cloud can increase profitability for the SMB when leaning on a backup cloud solution.

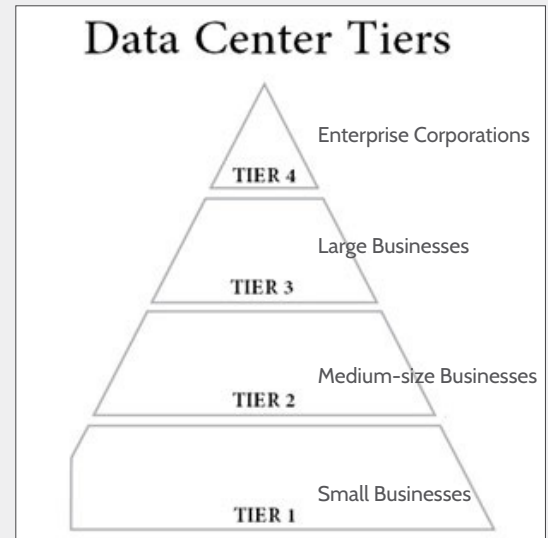
Better Backup through the Cloud

Using the cloud to store data offsite and online via a virtual server is a relatively simple and effective way for businesses to enhance their data backup strategy. The cloud as a backup solution offers industry best practice attributes such as redundancy and diversity. While tape-based backup solutions only take a full backup on a daily or even weekly basis, with the cloud, data snapshots are taken regularly. This improves the point in time recovery and businesses will have access to current information in the event that a data recovery is needed. Furthermore, files that are backed up to the cloud are usually encrypted and stored on redundant disk arrays, which allows for an easier and quicker system recovery. Virtualization and image-based backups (snapshots) combined with hybrid storage create what is considered to be the best disaster recovery system in the industry today.

Another advantage of backups through the cloud is that service providers utilize highly secure data centers to house clients' data. These centers commonly include enterprise-level features such as highly redundant storage, Tier II or greater infrastructure (see the chart for an explanation of data center tiers), SSAE 16 Type II Compliance, 24-hour monitoring, biometrics, fire suppression systems and climate control to name a few. Cloud consumers enjoy the benefits of these data centers through their cloud service provider minus the headaches and hefty price tag.

DATA CENTER TIERS EXPLAINED

You'll often hear techs referring to Tier I, II, III or IV data centers. This helpful graph from Colocation America breaks it down.



TIER 4

- Enterprise Corporations
- 99.995% Uptime
- 26.3 Minutes Downtime Per Year
- 2N+1 Fully Redundant
- 96 Hour Power Outage Protection

TIER 3

- Large Businesses
- 99.982% Uptime
- 1.6 Hours Downtime Per Year
- N+1 Fault Tolerant
- 72 Hour Power Outage Protection

TIER 2

- Medium-size Businesses
- 99.749% Uptime
- 22 Hours Downtime Per Year
- Partial Redundancy in Power and Cooling

TIER 1

- Small Businesses
- 99.671% Uptime
- 28.8 Hours Downtime Per Year
- No Redundancy

SOURCE:
www.colocationamerica.com/data-center/tier-standards-overview

A Different Approach to Disaster Recovery

Through cloud services, smaller companies, or those strapped for IT resources, can now enjoy disaster recovery assets, which in previous years, only companies with deep pockets could afford. Although often used interchangeably and concurrently, data backup is not the same as disaster recovery (DR). A backup is a copy of data that's been stored on a server, while disaster recovery is a system that allows for recovery of services and data.

Cloud computing allows for quick data recovery, high availability and plan individualization at a much lower price point than traditional disaster recovery methods. Additionally, cloud DR users benefit from rapid provisioning of resources, simple scalability, and easy adaptability to changing requirements.

However, cloud users also must consider the geographic diversity of the data center(s) housing their information. Depending exclusively on a corporate onsite data center or a data center that is too close in proximity to one's office may not be highly effective. Chances are both locations would be inoperable in the case of a natural disaster. When deciding what provider is best for incorporating a cloud-based DR plan, geographic diversity should be taken into consideration.

The numerous features of disaster recovery through the cloud sound great, but how does it actually kick in when an outage occurs? In the event of a disaster, the cloud provider would activate the virtual system, install the proper applications, and restore the essential data within a time frame defined by the client. Some providers will even mail a copy of the files on disk to the company as an added level of recovery. To this end, industry experts recommend incorporating several layers of protection in a DR plan. This offers enhanced protection, greater flexibility and greater options in regards to cost and recovery time.

Cloud Disaster Recovery Considerations

Despite the fluidity of DR in the cloud, it is still essential that businesses work closely with their provider to prioritize the critical data needed to resume business operations. The more specific and detailed a DR plan is, the better the chances are that it will meet recovery objectives in the case of an emergency. DR in the cloud is an attractive choice for many organizations; however it's not a perfect solution.

Some important aspects to consider when evaluating cloud disaster recovery include:

- How will the data be securely transferred and stored in the cloud?
- How will users be authenticated?
- Does the provider meet industry mandated regulatory requirements?
- Does the business have the bandwidth and network capacity to redirect users to the cloud in the event of a fail-over?
- How frequently will the data be replicated for backup?
- Are data backups designed for recovery?
- How long will it take for a restore from the cloud to an on-premise infrastructure?
- How much downtime is tolerable before the business will incur major consequences?

IN CONCLUSION

Cloud technology opens the door for SMB's to enjoy world-class IT infrastructures, effective backups, quick disaster recovery, and 24x7 access to data and applications for a price lower than ever before. While offering many benefits, cloud-based hosting, backup and disaster recovery may or may not be a good option for your business depending on a variety of factors. It's crucial that company stakeholders keep the fundamentals of their business goals in mind when determining if cloud-based solutions are a good fit for the company.

ABOUT DP SOLUTIONS

For over 40 years, DP Solutions has helped organizations bring their business to higher levels by taking IT worries off their shoulders. With managed IT, cloud, and professional services all backed by our state-of-the-art data centers, we give our clients high availability and the peace of mind that goes with it.

DP Solutions offers a high tech, high touch experience. We are a different type of IT company—one that not only delivers superior technology solutions to its clients, but also brings personal care, passion, and attention, because WE CARE DEEPLY about our clients' experience!

Our mission is quite simply to provide secure, efficient, reliable, and innovative IT service that delivers outstanding client satisfaction—and gets results. We're your single point of contact for all of your technology needs.

Through our adherence to industry best practices, we're committed to the long-term success of every customer we serve, no matter their size. Today, with over 1,000 satisfied clients locally and nationwide, DP Solutions is the premier IT technology solutions provider in the mid-Atlantic, serving as the IT company of choice throughout Maryland, Pennsylvania, Virginia and beyond. DP Solutions. Problem solved.

Visit www.dpsolutions.com/cloud to learn more or attend one of our upcoming events:

- Tech Breakfast Seminar: The New Face of IT, February 26, Columbia, MD
- Webinar: Discover DP Solutions and WorkSpace, March 12

For additional event information, or to register, visit dpsolutions.com/events.

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 dpsolutions.com/events

REFERENCES

**How SMBs are Backing Up: Solutions, Trends & Challenges*, Spiceworks, March 2013
<http://pages.spiceworks.com/backing-up-the-smb.html?id=701C0000000ORTw2>

2013 Small Business Technology Survey, National Small Business Association (NSBA)
<http://www.nsba.biz/wp-content/uploads/2013/09/Technology-Survey-2013.pdf>

Disaster Recovery in the Cloud Explained, Jacob Gsoedl, August 2011
<http://searchdisasterrecovery.techtarget.com/feature/Disaster-recovery-in-the-cloud-explained>

Tier Standards Overview, Colocation America
www.colocationamerica.com/data-center/tier-standards-overview

Benefits of Disaster Recovery in Cloud Computing, Online Tech
<http://www.onlinetech.com/resources/e-tips/disaster-recovery/benefits-of-disaster-recovery-in-cloud-computing>

Online Backup, Carbonite
<http://www.carbonite.com/online-backup/business/automatic-backup>

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