



Why the Cloud - Five things Plus to consider when looking at a cloud migration

If you haven't already considered migrating your data storage to the cloud, you are probably in the minority of businesses. While it may seem intuitive that somehow your data is safer if it is stored “at home,” on location at the site of your business, that probably is not correct. Given the ability of skilled cloud service providers to provide redundancy and a level of security unattainable by a small business, storing all your crucial business data on site using in-house support is probably akin to keeping your money under the mattress instead of a bank.

In this e-guide, we'll explain what cloud data storage means, and some reasons why it may be a good business decision. In addition, we'll quickly note a few reasons some people get nervous about the security of cloud storage.

What is cloud data storage?

In an earlier time, a business would store all of its data on-site. Individual employees might keep all of their Word and Excel documents stored on their PC. The business might store all of its customer data, financial and accounting information, clients lists, etc., on individual “secure” PCs and then back up to a server located in the equipment room. In this scenario, there are several concerns

1. Individual PCs may fail, losing all the data stored there.
2. Backups generally only happen periodically, thus anything created between backups when something goes wrong is...lost
3. Backups can fail
4. Backups require labor from an IT individual

5. Backups on a server in the equipment room 100 feet from the rest of the office isn't a secure storage site in case there is an on location disaster. Fire, flood, etc.
6. All of that data is vulnerable to cyber attacks and in-house IT professionals probably don't have the resources necessary to provide the most up-to-date tools to defend against cyber crime
7. All of that back up infrastructure is expensive.
8. All of the labor necessary to support it is expensive.

The cloud functions as your off-site storage location where you get some particular benefits. Cloud providers can generally provide the latest, most secure storage available. They also don't store it on one machine in one location. Top cloud providers offer redundancy not only on one storage site; your data will be mirrored in a geographically diverse location. A complete natural disaster affecting one server farm will be irrelevant to the safety of your data. Other copies may be across the continent.

So let's get to specifics.

1. **The Cloud offers economies of scale** - If you want to store and protect your own data, you need to purchase all of the hardware and software, all of the servers and backup servers, the uninterruptible power supply in case of a power outage, and hire 24/7 support. In the cloud model, you share all of those expensive fixed costs with hundreds and thousands of other users.
2. **Focus on your business** - As a smaller business, you may not have the technical expertise to manage a staff of IT specialists. More importantly, do you have the time to focus your energies on managing IT? You have the job of running your business and bringing in revenues.
3. **Scalability** - Does your business peak in summer and winter? To handle your storage needs you need to ramp up hardware bandwidth, labor etc, to meet peak demands. The rest of the year, that equipment may lie fallow. This creates high fixed costs that businesses, especially smaller ones, may not have the ready capital to build out. Cloud providers generally permit you to ramp usage up and down as needed. They have the available resources.

4. **Data Redundancy and Disaster Recovery**

While absolutely nothing is 100 percent foolproof, cloud storage dramatically cuts the risk of data loss through its built-in redundancy. As noted in our introduction, cloud data is not solely stored in one location on one set of servers. Instead, stored data is replicated across multiple servers and geographically diverse locations. This means a major natural disaster in one location is invisible to you. This also makes cloud storage an invaluable tool for disaster recovery and business continuity planning. All businesses have plans to continue operations in the event of a disaster. Cloud storage can mean your business may be able to function even if an entire physical location becomes inaccessible due to fire, flood or extreme emergency.

Also, if you use the SaaS model for the bulk of your software, that means employees can access the cloud to use software applications, and not rely on licensed applications resident on individual PCs. This is fantastic in the event of a disaster that limits access to your location

(Eg: A: PANDEMIC) and also allows for greater collaboration

5. Data Security and Compliance

Finally, cloud providers invest heavily in some of the strongest security measures available to protect data stored in their infrastructure. They implement encryption, access controls, and advanced monitoring systems to safeguard sensitive information. Most of these go far beyond what an individual organization, even a large one, can hope to provide. Additionally, many of these security protocols meet various regulatory compliance requirements, as cloud providers often adhere to industry best practices and certifications.

So, anything else to look at? There are a few worries you might have about migrating to a cloud solution.

Isn't my data safer at home?

While cloud storage offers enhanced security measures, organizations may still have reservations regarding the privacy and protection of their data. Somehow keeping it in your own location sounds safer. To overcome this concern, an MSP can help you fully understand the security measures implemented by most cloud providers, including encryption methods, access controls, and data isolation. Also, they can help determine that your cloud provider's protocols meet any regulatory standards you are required to meet, such as federal, state or international data security laws.

Network Connectivity and Bandwidth

Reliance on internet connectivity is inherent in cloud storage. The cloud isn't useful if you cannot access it. Organizations need a stable and robust internet connection to ensure access to their data. In situations with limited bandwidth or intermittent internet connectivity, accessing and transferring large files can become a challenge. However, if reliable internet access and bandwidth provisioning is an issue for your business site, that is a problem you need to address no matter how you plan to store your data. Few businesses can function reliably without solid high speed bandwidth. An MSP can provide guidance on how to handle this issue, if reliability in your location is a problem .

Vendor Lock-In and Data Portability

Are you worried about what to do if you change your mind or want to change cloud providers? In other words, “Can I pull all my data back in-house or choose another cloud provider without creating a headache?” Transferring data between cloud providers or migrating back to an on-premises infrastructure can be challenging. Be sure to discuss this with all vendors bidding for your business. Again, an MSP can help navigate the complexities of proposed contractual language.

Some last thoughts

The cloud isn't a total cure all. You still need a robust and secure in-house infrastructure to support your everyday operations. And this infrastructure needs to be defended against cyber criminals, on top of everything else. An MSP can be the solution for smaller firms who don't have the resources, time, or inclination to manage their in-house IT needs.

Three possible areas where an MSP can help are...

- **Continuous Monitoring and Support**

Once the transition is complete, MSPs provide ongoing monitoring and support for the cloud storage environment and your internal operations. MSPs can handle routine maintenance tasks, such as updates, freeing up internal resources and allowing businesses to focus on their core operations. They can also offer 24/7 monitoring on the remaining in-house IT infrastructure.

- **Security and Compliance Management**

You may have regulatory compliance concerns, as well as internal security requirements. An MSP has the experience to guide you in developing plans to meet those requirements.

- **Cost Optimization**

MSPs assist organizations in optimizing their cloud storage costs by monitoring resource utilization, identifying areas for improvement, and recommending cost-saving measures. Through regular analysis and optimization, MSPs help businesses maintain a complete IT infrastructure that includes a cost-effective cloud storage solution.



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