



WHITEPAPER

Consumer vs Professional Cloud Storage: What You Need to Know

MSP360 doesn't support backup to consumer-grade cloud storage in its products and doesn't recommend backing up mission-critical data to this type of cloud.

[See the full list of supported cloud storage options](#)

Intro

Whether at work or at home, storing your digital assets is necessary, whether you need to save family photos or work documents. In response to these digital requirements, cloud data storage has become a popular option as it ensures the data is available when needed, regardless of location. There are dozens of cloud storage vendors providing cloud storage, but what are the real differences between consumer and professional-focused cloud storage options.

You may already use Google Drive for storing and sharing your data. You may even consider it as a form of backup, but is it substantial? There are two types of cloud storage solutions that are commonly used for preserving essential data:

Consumer solutions These solutions target consumers and provide a low-cost means for storing personal information like your images, documents, and music. Examples include: Amazon Cloud Drive, Google Drive, and Microsoft OneDrive. These solutions are quite handy and easy to use.

Professional solutions These solutions primarily have more advanced functionality with features that make them a good fit for businesses (but consumers can use them too). Examples include: Amazon S3, Microsoft Azure Storage, and Google Cloud Storage. All are flexible and secure, yet they can be complicated.

In this whitepaper we will provide an overview of the most popular solutions, discuss the pros and cons, and help you decide which solutions best suit your needs.



Consumer Cloud Storage Solution

Consumer cloud storage is generally straightforward to use. Simply drag and drop or point to an existing folder in the included cloud software or web site and your files are safely in the cloud, ready to be accessed from anywhere. You can even work on documents inside the cloud and make revisions as needed without loading your device with unneeded data.



Consumer Cloud Benefits

Ease of use

Endpoint software is installed on your desktop or mobile device and allows you to sync data with with the cloud. This can usually be done both bi-directionally: Downloading new and changed data from and uploading new and changed data to the cloud.

Collaboration and integration

These tools are designed for collaboration. Microsoft OneDrive is integral to Office 365, and makes document editing and management a seamless and fast process. Google Drive has designed its own solutions to work with documents. They are fully compatible with Microsoft Office documents. An Excel sheet, for example, can be converted to Google Sheets in a couple of clicks. Both of these solutions allow collaborative effort on documents, so you can work with your colleagues in real time. Amazon Drive can be synced with an Amazon Kindle for unlimited storage of photos (for Amazon Prime members). Of the three, Amazon Drive is the least feature-rich, but is oriented towards basic data storage.

Out-of-the-box cross-platform

Every consumer storage solution from the big three providers is cross-platform. Say, for example, that your home environment is on macOS and you use an iPhone, but your work machine uses Windows and your work mobile is Android. No worries. You can transfer and download files as needed. But what if you don't want or can't install certain applications? If that's the case, basic features are easily reachable via the web interface of the solution you choose.

Simple pricing and lifetime free tiers

Most storage solutions have a free tier. Microsoft OneDrive offers 5GB free and Google Drive offers 15GB of free storage. Amazon Drive also offers a 5GB free tier.

Pricing for additional storage among the different providers varies, but is consistent and affordable - Office 365 subscribers, for example, can receive up to 1TB of OneDrive storage free of charge. For Google customers who need additional storage, as of this writing, an additional 100 GB from Google Drive costs just \$1.99 per month. Amazon's pricing and options update regularly, and Amazon Prime membership is a factor. No matter what storage solution you choose, be aware that any and all storage options are subject to change.

What Are the Concerns?

User agreements are frequently changed

As previously mentioned above, consumer-grade cloud storage solutions are subject to changes in pricing or storage limits. Sometimes the changes benefit the consumer (such as Google's decision to lower their storage pricing), but often the consumer may be forced to look elsewhere when faced with decreased storage and increasing prices.



Service and data availability are not defined

None of the big three consumer-oriented cloud storage solutions state the number of data centers that are available to store your data, the type of geographical redundancy for your files, or the number of copies of your files. There is also no information on the replication between different nodes across different data centers

Additionally, there is no specific data regarding service or data availability—and the service providers don't have any obligation to provide it.

Lack of security controls

As soon as your data is in storage, it's encrypted. However, none of the consumer solutions discussed here allow you to control the encryption keys. Thus, you are protected only against a data breach from the data center side. In the event of a successful attack on your storage or email account, the malefactor instantly gets full access to your files.

Built-in solutions with limited functionality

After all files and folders are selected, instant upload into storage starts. But built-in software is only good for on-the-go synchronization. These solutions also do not provide additional features, like: scheduling, file retention, email notifications, compression, encryption.

Consumer Cloud Storage: Best of the Breed

Google Drive

Google Drive is easily the most popular storage solution on the market, allowing synchronization, sharing and collaboration. For all new subscriptions, Google provides 15GB of storage for free.

Other storage plans include:

- 100GB for \$1.99 / month
- 1TB for \$9.99 / month
- 10TB for \$99.99 / month

Google Drive's software can be installed on all major platforms, including Windows, macOS, Android and iOS. A web-based user interface is also available. The solutions integrate with Google's Gmail.

Microsoft OneDrive

Microsoft has developed OneDrive storage to go hand-in-hand with its Office 365 cloud platform. Unlike Google Drive, OneDrive's storage plans are less flexible and include:

- OneDrive Basic with 5GB of free storage
- OneDrive 50GB with 50GB of storage for \$1.99/month
- Office 365 Personal for \$69.99/year (comes with 1TB of storage and Office 365 for 1 PC or Mac)
- Office 365 Home for \$99.99/year (provides the same storage as the previous plan, but for 5 PCs or Macs with 1TB of storage/machine).



Amazon Drive

Amazon Drive lacks the collaborative features of Microsoft OneDrive or Google Drive. It was designed to work with Amazon's existing infrastructure. With a Prime subscription, you get unlimited storage for your photos, access to Amazon Prime Video service with movies and various shows, and faster/cheaper delivery of goods ordered from Amazon. This subscription will cost you \$12.99/month. The pricing plans (for storage only) are:

- 5GB of free storage
- 100GB for \$11.99/year
- 1TB for \$59.99/year
- Each consecutive TB goes for an additional \$59.99/year.

[Read more](#)[What is Best for a Backup? Amazon Drive vs. Google Drive vs. Microsoft OneDrive](#)

Professional Cloud Storage

Professional cloud storage solutions may seem overly complicated. There are several storage classes designed for different needs. Each class differs in price and features. Storage pricing alone can be complex, and you need to keep in mind data storage per month, read/write/list operations, data egress and data transfers. Additionally, you get full control over storage security settings, which may seem overwhelming.

Professional Cloud Storage Benefits

On-the-go pricing

All popular professional storage solutions use a pay-as-you-go model—in other words, you only pay for what you use. Though pricing is complex, it covers all operations you perform. Each storage solution has a free pricing calculator with which you can estimate your expenses over the needed period of time

Security management

With professional solutions, you can create and manage granular permissions, based on user roles or other predefined settings. If you need to give access to your storage to someone else, but don't want to give full access, simply configure the specific role for that person or a group of users. This way, you can create differentiated storage inside one account. In addition to identity and access management, you can encrypt data on the server using your own password, thus preventing unauthorized access and possible data breaches.

Storage classes

Needs and pricing may vary for storage for daily use or long-term archiving. As a result, customers can choose from different **storage classes**. There are typically three of them:

- **Hot Storage Class.** The most expensive to store, the least expensive to retrieve from. Designed for data you might need on a daily basis.
- **Cool Storage Class.** This has median pricing in terms of both storage and retrieval.
- **Cold Storage Class.** The cheapest for storage and the most expensive for retrieval.

Typically, cool and cold storage classes have a so-called “early deletion fee.” It’s charged if you delete or change your data in 30 days for cool storage, and 90 or 180 days for cold. Early deletion fees define the minimum retention that these classes were designed for.

You can set custom retention policy to move files from one class to another and delete unneeded data automatically. This requires some planning, but when all elements are set, your data will move between storage classes without any additional actions from your side.

Data availability and replication

No storage providers will tell you that your data is indestructible or 100% safe. Professional services, however, are coming extremely close to that objective. Amazon S3 has “eleven nines” data availability and Microsoft allows you to choose several options for data replication. At any point in time your data is stored across several nodes or different geographically redundant data centers.

Flexible API

Professional storage providers typically don’t provide proprietary software, nor do they allow uploading data of data from the web interface. This means that the typical professional API should be oriented towards third-party developers. It should be easy to work with, understandable and flexible.

In short, a feature-rich API lets software developers implement effective data management solutions, allowing you, as an end user, to automate more operations and leverage more features, including:

- block-level incremental backup
- deduplication
- synthetic backup
- access and identity management
- server-side and endpoint encryption

Integrations

Consumer-grade solutions may offer great sharing and collaboration, but professional cloud storage solutions are integral to IT environments and the creation of versatile applications and solutions.

Amazon Web Services has a couple of dozen services fully compatible with Amazon S3 storage. You can host and run a solution or website using nothing more than AWS, bringing the need for on-prem infrastructure to a minimum. For example, you can host your website on Amazon Route 53, upload all its resources to S3, and enable CloudFront for different geographical regions to increase the speed of content delivery across the globe. If you need to send emails to customers, simply use Amazon’s Simple Email Service. If you want more muscle for your application, spin an Amazon EC2 cloud server.

Microsoft and Google have both created versatile, feature-rich environments which complement their storage solutions so that you can achieve experiences similar to Amazon Web Services (though not exactly the same).

What Are the Concerns?

No proprietary software

A lack of proprietary software implies that you need a third-party solution for data storage and management. The typical evaluation process involves searching for, trying out, buying and implementing the right software instead of just downloading and installing the application from the vendor’s website.

Some solutions are free or open source, which can mean limited functionality, bugs, a lack of a user interface, or missing documentation or features.

Difficult configuration

We have already mentioned how feature-rich and flexible professional storage solutions are, but what if you don’t have experience in data management? In that case, the learning curve becomes quite steep.

Wrongly chosen options can become pricey, so even if you are fluent in cloud services, the initial configuration will be time-consuming.

Complex pricing

You pay for the **actions you complete** on cloud storage. These actions include:

- Data storage
- Any API requests
- Data transfers

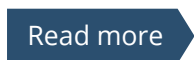
Besides, when leveraging cold storage, it’s easy to forget about data deletion fees and setting the wrong retention policy. Your data will be deleted from storage after 30 to 90 days, resulting in a surprisingly huge bill at the end of the month.

General Comparison

Below you will find a comparison table, that shows the difference between professional cloud storage and consumer cloud storage solutions. We do not put any exact solution to the table, only the information, that is applicable to the given categories.

	Consumer Storage Solution	Professional Storage Solution
Pricing	Tiered pricing, free storage available	On-the-go complex pricing
Security	Server-side encryption	Server-side encryption Server-side encryption with user’s password Group policies IAM
Features	Instant sharing Collaboration in documents	Wide range of additional integrated solutions
Data management	Out-of-the-box cross-platform solutions web user interface	Wide range of third-party solutions No proprietary software No web interfaceearline
Availability and redundancy	Availability is not specified Redundancy is not specified	Availability specified Different redundancy options

Are you choosing cloud storage for your clients?



[MSP’s Guide To Providing BaaS with MSP360 Managed Backup and AWS](#)

Professional Cloud Storage: New Arrivals

In the last couple of years, the dominance of the Big Three has been disrupted by newcomers playing by a different set of rules.

These new companies mix features of hot storage classes like retrieval speed with the storage price of cold classes.

The most significant companies making changes are:

- BackBlaze B2
- Wasabi Hot Storage



On paper, the options they provide may seem like a perfect, easy choice, but there are details worth considering.

Smaller infrastructure

AWS, Microsoft and Google have literally dozens of data centers in every part of the world. Both BackBlaze and Wasabi have far less. These data centers are in the US only, making data redundancy an issue for global corporate usage, especially if your files are under some form of compliance.

Less elaborated ecosystem

As mentioned previously, you can run a complete IT infrastructure using nothing more than Amazon Web Services. Neither BackBlaze nor Wasabi have similar integrated solutions. BackBlaze has a partner in cloud computing, but that is not enough to create a rivalry.

Conclusion

If you need to share your data, work with it on a daily basis, and synchronize it between different devices, then you need to go with consumer cloud solutions. If you need flexible and diverse data backup and storage solutions for corporate usage, especially for compliant data, then you should check out one of the Big Three's offerings.

If you need solid personal backup, or storage for data that does not fall under compliance rules, you'd probably be quite happy with one of the storage solutions available from companies outside the Big Three.



About MSP360

MSP360 is a leading cross-platform cloud backup and disaster recovery solution. MSP360 is integrated with major public cloud services, such as Amazon Web Services, Microsoft Azure, and Google Cloud Platform. MSP360 Backup comes with powerful, easy-to-use backup and disaster recovery capabilities, including file-level and image-based backups, disaster recovery to virtual machines in the cloud, data compression and military-grade encryption using customer-controlled keys. Customers can run MSP360 Backup on Windows, Mac and Linux operating systems.

MSP360 also provides a turnkey, white-label data protection service to thousands of VARs and MSPs to help them build their brand in the cloud backup market.

Since 2012, MSP360 has been an Amazon Web Services Advanced Technology Partner. MSP360 has also achieved Storage Competency Partner status in the AWS Partner Network.

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