Drivers for change

Cloud Backup – A Birds eye view

Data Protection in the context of cloud

Implementation – Consideration and Challenges

References
Paradigm Shift

Digital Data Growth

Exabytes

[Graph showing the growth of digital data from 2008 to 2020]

Mindteck
Growth trend of data

Structured Data
- Information with a high degree of organization
- Readily searchable by simple, straightforward search engine algorithms or other search operations

Unstructured Data
- It doesn’t fit nicely into relational databases like SQL,
- Searching it based on the old algorithms ranges from difficult to completely impossible.
- Examples include emails, text documents (Word docs, PDFs, etc.), social media posts, videos, audio files, and images.
Cloud Storage

- Intended as an extra storage medium
- Easier to access and edit files from different devices (PC, mobile devices, etc.)
- Share files with others
- Files uploaded to cloud storage services are usually selected specifically by the user and make up a subset of the total collection of files on the computers and mobile devices belonging to that user
- Files may be uploaded on a one-off basis to the cloud and downloaded as needed.
- May have limits on the size of individual files or the amount of data you can transfer daily, weekly, or monthly
- Data security may not be as stringent as it is for backup providers
Cloud Backup

- Also known as online backup
- Involves sending a copy of the data over a proprietary or public network to an off-site server
- Designed to store a large amount of data
- Cloud backup are not intended to be accessed regularly
- Provides an easy way to restore all your files in the event of data loss or corruption
Cloud backup - Under the hood

On-Prem

Service Provider

Cloud Gateway
- on-premises device, usually a hardware or software appliance that connects local applications to cloud-based storage.
Benefits

- Efficiency and reliability
  - Storage efficiency technologies like Compression, Encryption, Data De-duplication, Virtualization, application-specific protection
  - Certified data centers for data security
  - Ease of monitoring via a single dashboard

- Scalability
  - Organizations can leverage the unlimited scalability of a third-party cloud provider without the upfront capital expenditure
  - the pay-as-you-go model significantly reduces the procurement and provisioning headaches for backup
  - Allows for predictable management of capacity growth and operational costs

- Improves recovery time
  - Secure access to data retrieval enables faster data recovery

- Accessibility
  - Any time access (over internet) from anywhere
Cloud Backup - Considerations

- **Cloud Provider**

- **RTO and RPO requirements**
  - Slower network speeds might cause backups to come back a day or more

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**Recovery Point Objective**
The amount of data your organization/you are willing to lose in case of an event

**Recovery Time Objective**
The amount of time an organization/you are willing to accept for system recovery

The tighter the RPO and RTO, the more money you will spend on your infrastructure.
Cloud Backup - Considerations

What to Backup
• Total capacity of data
• Time for first full backup/ full recovery of site data

Size limitations.
• Bandwidth availability
• Reasonable capacity of data that can be transferred daily to the cloud

Exit Criteria
• Termination or early-withdrawal fees, cancellation notification, and data extraction

Service Agreements (SLA)
• The performance of the service and the "guarantees"
Cloud Backup providers

- ADrive
- BACKBLAZE
- OpenDrive
- zoolz
- Acronis
- CrashPlan
- SugarSync
- CARBONITE
- IDrive
- mozy
- memoPal
- mi
- elephant drive
- SOS
- Norton by Symantec
- TOTAL DEFENSE
- Mindteck
References

• TechTarget

• https://www.lifewire.com/online-backup-services-reviewed-2624712
Thank You