

transfer data from on-premise to Azure.

* Azure Databox

- ↳ is a service offered by Microsoft Azure that lets us transfer terabytes of data to Azure in a quick, inexpensive and reliable way.
- ↳ Data transfer takes place by shipping us a proprietary Data Box Storage device.
- ↳ The device is transported to our data centre through a regional carrier and has a rugged casing to protect and secure the data during the transit.

Use Cases:-

- 01) On-time migration :- Large amounts of on-prem data is moved to Azure at once.
- 02) Initial Bulk Transfer :- with the used Data Box followed by incremental transfers over time.
- 03) Periodic Upload :- Data that is generated periodically is moved to Azure.

* Azure Storage Replication (ASR)

↳ why? - Storage Replication ensures that you always have access to your data stored on Azure Storage even in the face of failures.

Replication is how Azure Storage guarantees durability and availability.

What is ASR?

- ① The data in your Microsoft Azure Storage account is always replicated to ensure durability and high availability.
- ② Azure Storage copies your data so that it is protected from planned and unplanned events, including hardware failures, network or power outages, and massive natural disasters.
- ③ You can choose to replicate your data within the same data center, across zonal data centers within the same region, or across geographically separated regions.

* Data Replication Options *

1. Locally - Redundant Storage (LRS) :-

↳ Replicates three copies of your data within the same data center in which you have your data

2. Zone Redundant Storage (ZRS) :-

↳ Replicates your data synchronously across three storage cluster in a single region.

3. Geo-redundant Storage (GRS) :-

↳ Replicates your data to a secondary region that is hundreds of miles away from primary region.

4. Read-access geo-redundant Storage (RA-GRS)

↳ provides read-only access to the data in the secondary location.

* Azure Import/Export Service (IES)

Why? ↪ Transferring the data over the internet can take days, weeks or even months.

To avoid this issue Microsoft provides the Import/Export service where you ship your physical disk directly to Azure and they will upload them for you.

What is IES?

- * - It is used to securely import large amounts of data to Azure Blob Storage and Azure Files by shipping disk drives to an Azure datacenter.
- * - This service can also be used to transfer data from Azure Blob Storage to disk drives and ship to your on-prem sites.
- * - Data from one or more disk drives can be imported either to Azure Blob Storage or Azure Files.
- * - You can supply your own disk drives and transfer data with the Azure Import/Export service. You can also use disk drives supplied by Microsoft.

* We Case :-

1. Data Migration to the cloud :-

↳ Move large amounts of data to Azure quickly and cost effectively

2. Content distribution :-

↳ To quickly send data to your customer sites.

3. Backup :- Take backups of your on-prem data to store in Azure Storage

4. Data Recovery :-

↳ Recover large amount of data stored in storage and have it delivered to your on-prem location.

Import Export Job Flow (Slide).

1. creating
1. Hard drive & write bit locker.
 2. create an import export job using Azure Portal.
- Shipping drive to datacenter.

Transferring data from drive to storage account

Packaging Hard drive for return

Completed
Shipped back to customer.

