

# Data recovery and Backup concepts - IBPS SO

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Hi Folks,

We will take up another important topic for specialist officer's exam today i.e data recovery and back up. We will briefly learn about the terms, concepts and utilities used for that purpose. Doubts can be raised in comments section.

## Full Backup

In this, you back up full copy of your data set. Though they provide best protection but they are very time consuming and required a large no. of tapes or disks.

## Incremental Backup

In this, you backup the data that has changed since previous back up. Obviously it takes less time than full back up.

## Differential Backup

It starts with a full backup and subsequent backups contain data that has changed. So it contains all the data that has changed since last FULL BACKUP.

## Flat Backup

It is a method for using snapshots to protect data without using traditional backup software. Advantages of flat backup are simplicity and low cost since no backup servers are required. Storage Snapshots is a set of reference markers for data at a particular point in time. Snapshots provide easier and quicker access to data.

## Backup Site

Backup site is a place where the business can continue after a data loss event.

## Backup Window

It is the period of time for which a system is available to perform a backup operation. To mitigate the effects of system failure in an emergency situation, backup windows are provided to users.

## Disaster Recovery

The process of recovering and restoring data after a business disaster. 3 important recovery phases are as below:

Phase 1 - Move operations to a backup site or emergency operations center.

Phase 2 - Recover critical business functions, applications and network connectivity.

Phase 3 - Move operations back to primary facility

### **Disk Cloning**

It is the process of copying the contents of one hard disk to another or to an image file.

### **Hot Backup**

It's a backup of database that is still running. Due to that changes may be made to the data while it is being backed up.

### **Cold Backup**

It's a backup when the database is offline i.e. not accessible to update. Some of the unix utilities that can be used for a cold backup are cpio, tar, dd, fbackup.

### **Multiplexing**

It is a process of combining multiple data backup streams into a single stream that is written to a single storage device. E.g. Backup of 3 PCs to a single tape.

### **Multistreaming**

It is a process of creating multiple data backup streams from a single stream to be stored into multiple storage devices. E.g. Backup data of a single database into 4 tapes.

### **Backup as a service (BaaS)**

It's an approach where you purchase backup and recovery services from an online data backup provider. Similar to cloud approaches (SaaS, IaaS, PaaS) where you purchase services from a cloud vendor for your work.

### **Failback**

Failback is a process where you restore operations to the primary facility after they had been shifted to a secondary facility during failover.

### **Hot Site**

A hot site is an alternative disaster recovery service that allows a business to continue operations in the event of a disaster. It has all the infrastructure needed for company to continue operations including office space, furniture, telecommunication lines and computer equipment.

### **Cold Site**

It is also a disaster recovery service that provides office space but the customer has

### Storage Virtualization

It is a process of pooling physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console.

### Tiered Storage

It is the assignment of different categories of data to various types of storage media to reduce total storage cost. These tiers can also have different levels of data protection based on if data is sensitive or not.