# Automated Backups

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## PostgreSQL Automated Backups

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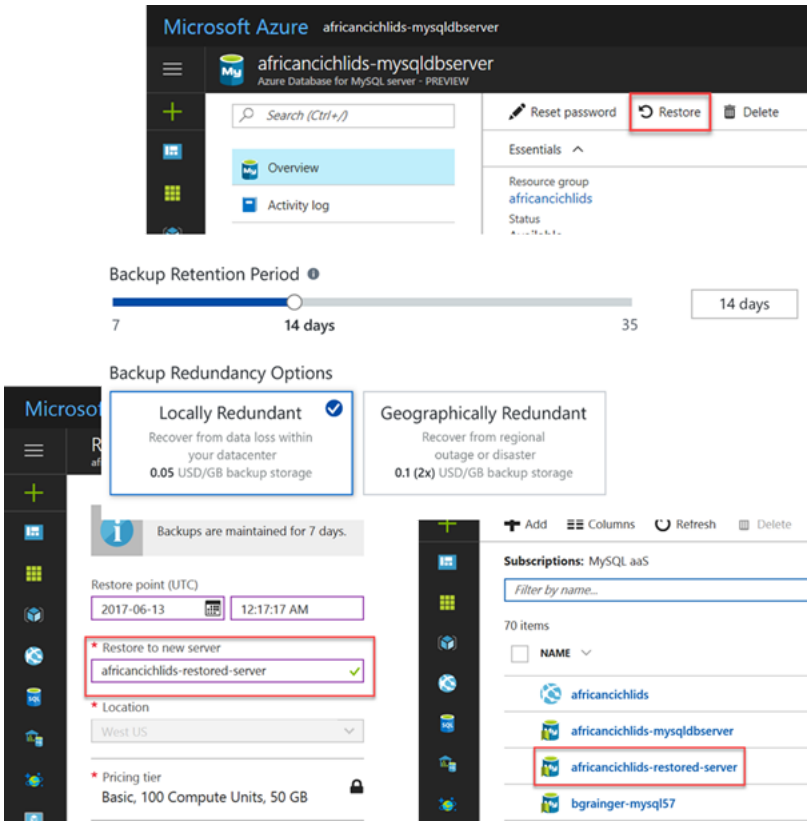


Azure Database for PostgreSQL automatically creates server backups and stores them in user configured locally redundant or geo-redundant storage. Backups can be used to restore your server to a point-in-time. Backup and restore are an essential part of any business continuity strategy because they protect your data from accidental corruption or deletion.

### Backups

Azure Database for PostgreSQL takes backups of the data files and the transaction log. Depending on the supported maximum storage size, we either take full and differential backups (4 TE max storage servers) or snapshot backups (up to 16 TB max storage servers). These backups allow you to restore a server to any point-in-time within your configured backup retention peric The default backup retention period is seven days. You can optionally configure it up to 35 days. All backups are encrypted using AES 256-bit encryption.

### Backup frequency

Generally, full backups occur weekly, differential backups occur twice a day for servers with a max supported storage of 4 TB. Snapshot backups happen at least once a day for servers that support up to 16 TB of storage. Transaction log backups in both cases occur every five minutes. The first snapshot of full backup is scheduled immediately after a server is created. The initi backup can take longer on a large restored server. The earliest point in time that a new server can be restored to is the time at which the initial full backup is complete. As snapshots are instantaneous, servers with support up to 16 TB of storage can be restored all the way back to the create time.

### Backup redundancy options

Azure Database for PostgreSQL provides the flexibility to choose between locally redundant or geo-redundant backup storage in the General Purpose and Memory Optimized tiers. When t backups are stored in geo-redundant backup storage, they are not only stored within the region in which your server is hosted, but are also replicated to a paired data center. This provides better protection and ability to restore your server in a different region in the event of a disaster. The Basic tier only offers locally redundant backup storage.

### Backup storage cost

Azure Database for PostgreSQL provides up to 100% of your provisioned server storage as backup storage at no additional cost. Typically, this is suitable for a backup retention of seven day Any additional backup storage used is charged in GB-month.

For example, if you have provisioned a server with 250 GB, you have 250 GB of backup storage at no additional charge. Storage in excess of 250 GB is charged.

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As you develop your business continuity plan, you need to understand the following objectives:

## Recovery Time Objective (RTO)

Your RTO is the maximum acceptable time before the application fully recovers after the disruptive event - this is your Recovery Time Objective (RTO).

## Recovery Point Objective (RPO)

Your RPO is the maximum amount of recent data updates (time interval) the application can tolerate losing when recovering after the disruptive event

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