

Backup and Restoration Policy

Contents

Overview	1
Scope	1
Definitions.....	2
Backup.....	2
Replication	2
Backup & Replication Schedules	2
Point in Time recovery	2
Daily Backups	2
Weekly Backups	2
Monthly Backups	2
Continuous Replication.....	2
Data integrity testing	3
Backup & Replication Retention.....	4

Overview

This document defines the procedures put in place for Backup & Restoration of all data of all components of the MENU Service, operating in the main AWS Frankfurt, AWS Virginia, and AWS Sao Paulo Regions (MENU EU/US/LAC Regions) using the AWS Ireland Region (MENU EU2) as Backup & Disaster Recovery location.

Scope

MENU AWS Services:

- RDS MySQL Database,
- S3 file storage,
- EC2 instances,
- EB configurations.

Definitions

Backup

These refer to backup of MENU AWS Group of services: RDS MySQL Databases, S3 file storage, EC2 instances, and EB configurations, Snapshots are pointers to changes occurring within the RDS MySQL Database, S3 file storage, EC2 instances, and EB configurations, since the last scheduled snapshot.

Replication

This process refers to the continuous copying/synchronizing of S3 storage file data and RDS MySQL database from the primary, main operating location in the AWS Frankfurt, AWS Virginia, and AWS Sao Paulo Regions (MENU EU/US/LAC Regions) to the secondary backup AWS Ireland Region. The mirror copy at the AWS Ireland Region will be used for offsite backup capability if a disaster or other issues occur in the main AWS Frankfurt, AWS Virginia, and AWS Sao Paulo Regions.

Backup & Replication Schedules

Scheduled backups and replications are performed by the MENU IT Department on the following schedule:

Point in Time recovery

- Continuously - 5 min RDS MySQL Database Point in Time Recovery available.

Daily Backups

- 7:00 am
- Every day - Snapshot of RDS MySQL database and ElasticCache Redis.

Weekly Backups

- 7:00 am
- Every Sunday - Snapshot of EC2 instances, EB configurations, and RDS MySQL databases.

Monthly Backups

- 07:00 am
- First day of the next calendar month – Snapshot of EC2 instances, EB configurations, and RDS MySQL databases.

Continuous Replication

- Continuously (as changes happen).
 - RDS MySQL Database
 - S3 storage buckets with versioning enabled

- Replication of all data from S3 storage and RDS MySQL Database is done from the AWS Frankfurt Region to the AWS Ireland Region.

All backups are clearly labelled the following information is provided for each backup:

- Time (CET) – e.g. 12:00:00 AM or 12:34:59 PM
- Date – e.g., 31122019
- Backup Type – e.g., Daily/Weekly/Monthly

Data integrity testing

Data integrity testing is performed in regular 2 months scheduled intervals on the backup location but may also be completed manually at random times to verify the validity, accuracy, and authenticity of the backup.

Testing schedule:

- T1 – January 1-7
- T2 – March 1-7
- T3 – May 1-7
- T4 – July 1-7
- T5 – September 1-7
- T6 – November 1-7

Testing consists of the following methods of data validation and verification of accuracy and authenticity:

- **File Restoration:**

Recovery of a 5 to 10 actual random files located on the backup region.

Backups are performing correctly, and file contents and locations are being appropriately updated if files are successfully recovered.

- **Database Restoration:**

Recovery of RDS MySQL snapshot located on the backup region, by creating a new RDS MySQL instance and comparison of data between the production and recovered RDS MySQL Instances

Backups are performing correctly if the new database is performing properly and the compared data are the same.

- **Miscellaneous:**

Different tests may be used by the MENU IT Department with only one restriction: they may not cause any data loss on the backup location.

If a scheduled backup process is incomplete or missing due to a service malfunction, then the backup will be completed ASAP. If a AWS service backup test results with serious issues, then a

replacement for the faulty AWS service would be done ASAP to prevent such problems to occur in the future.

If these issues prevent backups from occurring, then the second backup in the AWS Ireland Region will be transferred to primary backup duties.

All processes of restoration will follow, one of the following methods:

- Rerouting primary traffic from the backup AWS Ireland Region to the main AWS Frankfurt Region and vice - versa
- By the testing process described in this document
- Using the Disaster Recovery Plan

Backup & Replication Retention

The maximum number of backups and replications that the MENU IT Department will retain at any one time. Once these backups or replications reach the maximum count, the oldest will be recycled so that the newest may be retained.

Daily Backup

- 35 days snapshots of data at daily intervals

Weekly Backup

- 12 weeks (approx. 3 months) snapshots of data at weekly intervals

Monthly Backup

- 6 months snapshots of data at monthly intervals

Replication

- exact copies of existing data and backups replicated on the backup AWS Ireland Region

Log files are preserved consisting of information for each backup or replication process, errors, access issues, or other critical errors involving the backup process.