



RIVO

Backup & Disaster Recovery Process

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Version Control

Date	Version	Updated By	Approved By	Description of Change
19-07-2023	2.0	Doc-Team	Cloud Operations Director	Document Re-branding & Approval for 2023
25-10-2023	3.0	CloudOps - Team	Cloud Operations Director	Update DR changes

1 Introduction

The main objective of this document is to provide support teams and/or customers with an overview of the Surecomp Backup and DR procedures which are part of Surecomp cloud offering on RIVO application.

Surecomp services using AWS tools. This strategy aims to ensure business continuity and minimize downtime in the event of a disaster or data loss.

Surecomp uses AWS Data Centers for Runtime Production infrastructure and for Disaster Recovery infrastructure (DR).

2 Objectives

The primary objectives of our disaster recovery strategy are as follows:

- Minimize the Recovery Time Objective (RTO) and Recovery Point Objective (RPO).
- Maintain data integrity and availability.
- Establish clear procedures for backup and recovery operations.
- Regularly test the DR plan to ensure effectiveness.

3 Operations

3.1 Backups

RIVO Production application backups take a daily snapshot of the production machines, application server (s), and the database server (s) including:

1. All system files – stored in Rivo repositories (git)
2. Configuration files – stored in Rivo repositories (git)
3. Attachments files - Daily, Monthly, and Yearly Backups
4. Database information – Daily, Monthly, and Yearly Backups
5. Database Archiving. – Daily, Monthly, and Yearly Backups

Backups, i.e., snapshot files are stored directly in different AWS regions.

Rivo production database is a replica-set, meaning the database has a replica in the DR region which is Ireland. The main region for production is Frankfurt. Any data written on the primary database in Frankfurt is automatically replicated to the DR region in Ireland. In case of a DR situation the primary database is switched to be in the DR region and the Frankfurt region becomes the secondary database.

Surecomp monitors the backup process and ensures the backups are successfully completed with Monitoring system and getting alerts when there is any problem.

All infrastructure is executed via Terraform and saved in a repository. The terraform information having access to all the files that needed to be deployed in any environment (for example all services images and any config-map files). The terraform information is handled in the repository as infrastructure as a Code (IaC)

3.2 Disaster Recovery

In the event of a serious failure, Surecomp ensures that the production system is restored to its last known fully functional state as expeditiously as possible. This process may involve restoring from backups in case of data loss or corruption.

Surecomp endeavours to reasonably meet the below RTO and RPO targets listed below:

Term	Definition	Objective
RTO	Recovery Time Objective	Restoring RIVO to operation; within up to 4 hours, commencing as of when Surecomp is aware of the failure.
RPO	Recovery Point Objective Data Loss Time	The maximum length of time permitted that data can be restored from: 24 hours.

3.3 DR Preparation/Setup – The Ideal Setup

Action	Description
Setup as a Code	Preparing and manage ongoing the configuration scripts as a code.
Running DB backups	Preparing and manage ongoing all RIVO Databases. Database replica-set synchronisation.
Backups External volumes	Check Snapshot of all machines and volumes. Keep the backups in different AWS regions.

3.4 Disaster Recovery Steps

Action	Description
Setup as a Code	Running the prepared scripts and build the RIVO environment.
Running DB backups	Switch the DR region replica to the primary database.
Backups External volumes	Restore the snapshots of Rivo Repositories and VPN tools including attached the volumes
DNS and access	Update the DNS and access parameters to the New RIVO environment

3.5 DR Drill

Surecomp conduct a DR Drill at least once every twelve (12) months. This drill cover RIVO business functions based on the Risk Management methodology.

All drills will be monitored and documented to assist the CISO and the Information Security Forum to conclude and mitigate any gaps raised during the drills.