Enterprise-Grade Disaster Recovery (DR) for Bajaj Group Using AWS-Native Services

As the AWS Managed Services Partner (MSP), our team **successfully designed and implemented the entire Disaster Recovery (DR) solution for Bajaj**, delivering a high-availability, secure, and enterprise-grade setup tailored to their SAP RISE architecture and AWS environment.

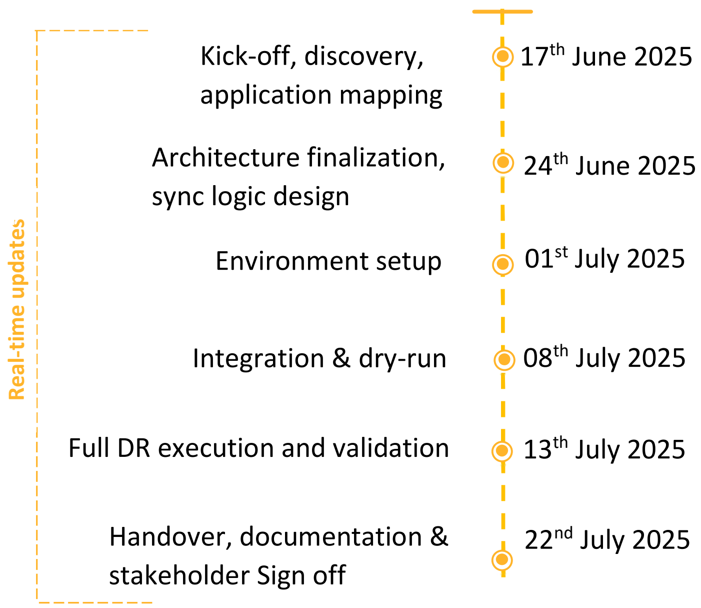
About the Customer

Bajaj is one of India's largest and most diversified conglomerates, with strategic operations in **manufacturing**, **financial services**, and **technology**. Given the **mission-critical nature of SAP workloads and financial systems**, Bajaj required a highly secure and automated DR mechanism — especially considering **SAP RISE's architectural limitations on direct storage integration**.

Objective and Impact

- **Objective:** Implement an enterprise-grade Disaster Recovery (DR) mechanism across SAP RISE and AWS to protect critical business data.
- **Impact:** Achieved secure, automated, bi-directional synchronization between SAP RISE and AWS infrastructure with **zero data loss** and **full operational continuity**.

Timeline of Engagement



Kick-off, discovery, application mapping	17th June 2025
Architecture finalization, sync logic design	24th June 2025
Environment setup	01st July 2025
Integration & dry-run	08th July 2025
Full DR execution and validation	13th July 2025
Handover, documentation & stakeholder Sign off	22nd July 2025

Business Challenge

Bajaj's primary DR requirement was to maintain seamless, real-time data synchronization between SAP RISE (hosted in **Hyderabad**) and AWS (also in **Hyderabad**, DR zone), with fallback capability to its **production environment in Mumbai**. Key complexities included:

- SAP RISE's inability to directly mount S3 to SAP servers
- Need for **cross-account coordination** between Customer's Application and DR environments
- Strict security posture requiring **FQDN resolution** and **controlled internet access**
- Demand for **event-driven automation** and **bidirectional synchronization**
- Application teams requiring **secure, scoped access** to respective DR resources

Partner-Led Solution

As Bajaj’s trusted AWS MSP Partner, we designed and delivered an **AWS-native, automation-driven DR architecture** that met complex cross-environment challenges while aligning with enterprise-grade compliance and performance goals.

Services Involved

- **Amazon S3**
- **Amazon EFS**
- **AWS DataSync**
- **AWS Lambda**
- **NAT Gateway**
- **IAM Roles & Policies**

Architecture Overview: Engineered for Security & Automation

Key Architectural Highlights:

- **Cross-account synchronization** between S3 and AWS Account.
- **Event-based sync automation** using Lambda + S3 Notifications
- **Secure internet access** for outbound connections via NAT Gateway
- **Static host resolution** (FQDN) for DR compatibility with SAP applications
- **15-minute scheduled Lambda trigger** for consistent state synchronization
- **Manual DR failback mechanism** post-validation to Mumbai

Our MSP Role: Beyond Support, Strategic Ownership

Pre-Implementation:

- Conducted a deep-dive analysis of SAP RISE integration limitations
- Defined custom **S3-to-EFS sync paths** per applications
- Developed architecture in alignment with AWS best practices and SAP DR patterns

During Implementation:

- Delivered all configurations: S3 buckets, EFS file systems, NAT Gateway, EventBridge, Lambda functions
- Executed a **real-time DR simulation**, including fallback testing
- Maintained strong change management and stakeholder coordination

Post-Implementation:

- Validated IAM policies and access paths across apps
- Monitored DR cycles and performed stability tests
- Delivered full DR runbook and architectural documentation for audit and handover

Business Impact

Bi-directional Data Sync
Successfully automated via Lambda & DataSync

Zero Data Loss
Confirmed through pre/post DR sync validation

High Operational Resilience
Continuous 15-minute sync cycles sustained

Security Compliance
All access controlled via scoped IAM roles & encrypted channels

Cross-Account Integration
Smooth coordination between production & DR accounts

SAP-Ready File Architecture
EFS + S3 designed for hybrid compliance use cases