



DR on AWS Cloud

CASE STUDY
LUX Industries Limited

March 2022

About Lux Industries Limited

LUX INDUSTRIES LIMITED based out of Kolkata, West Bengal, India is a part of the Apparel Manufacturing Industry and has built an enduring brand image (as the people's brand) in the hosiery market.

Lux Industries has 7 factories and 11 offices across various cities in India with over 900 employees and as many as 17 companies. in the corporate group.

Lux Industries has the latest machinery and superior raw materials in-house in its latest project in Dankuni, West Bengal. Spread over 21 acres, it has an in-house processing unit and maintains extensive & stringent quality controls across all the production stages.

Executive Summary

Lux Industries Limited is having its SAP ECC 6.0 EHP 7 landscape running on HANA Database and SUSE Linux OS co-located with Sify Data Center in Rabale, Mumbai. For business continuity, the SAP application – Suit on HANA (SoH), and the business processes it supports, should remain available and accessible without any interruption, despite man-made or natural disasters. It should serve its intended function seamlessly. Hence, for efficient functioning of crucial business operations, Lux Industries intended to have a Disaster Recovery (DR) setup implemented for their Production Instances.

Challenges Overcome

Lux Industries did not have any other DR setup (Secondary Site) other than the primary DC where the hardware is co-located in Sify's DC. To avoid any data loss or interruptions in any form, Lux wanted to setup a DR without investing in too much on CapEx.

Solution Proposed

After exploring all the available options, LUX Industries Limited chose SIFY Technologies Limited as its partner to implement the Cloud DR solution. SIFY had proposed to setup DR on AWS Cloud for their current suite on HANA setup with low opex instead of any capex. In addition, Sify undertook to manage the implemented hybrid Infrastructure setup of Lux Industries wherein their DC co-located in Sify DC would be linked to AWS Cloud over Direct Connect.

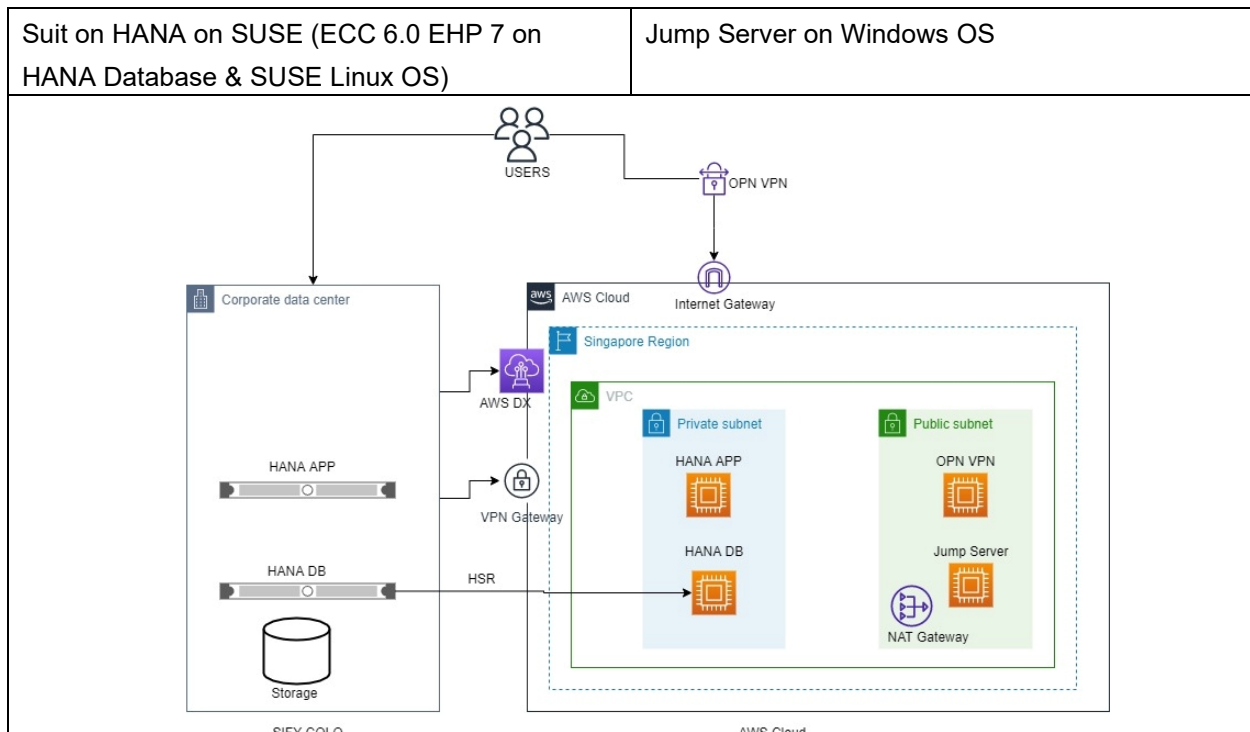
Key Drivers to choose AWS Cloud Solution for DR

To leverage the benefits of scalability, reliability, agility of the Cloud.	Pay only for AWS services used.	Remotely test anytime from anywhere.
Improved security posture in the Cloud.		Secure & Durable cloud disaster recovery platform with industry-recognized certifications and audits.

AWS services used to setup DR solution on AWS Cloud

SAP HANA database on Amazon EC2 instance with SUSE.	Amazon Elastic Block Store volumes used for EC2 storage for both application and HANA DB servers.	Amazon VPC has been configured with private subnets and all the application & database servers are hosted in private subnet.
Admin Users will access the server using open VPN. During the active scenario, all users will connect to the Server via open VPN.		AWS Direct Connect is used to establish connection between Lux DC Infra setup collocated in Sify DC at Navi Mumbai and DR in AWS Cloud.

SAP Solutions Used



Solution Description

Prepared necessary landing zone to provision and deploy workloads.	Sify created AWS A/C in Mumbai Region for reduced latency.	Application server and DB server provisioned in private Tier.	Sify DC communicates with the AWS servers using AWS Direct connect.
For admin access the required ports opened to the static IP and CIDR block as provided by the client.	HANA DB replication happens using HANA native replication method.	S3 buckets creation to store static contents – as per need from SAP application.	Installation of Production Environment for SAP HANA Instance & Solman.
Application server will be on shutdown mode and considered 20 hours in a month.	During the passive scenario all the servers are on minimum configuration and during the active scenario we increase the server instances as per the On-Prem configuration.		Complete setup of SAP landscape on AWS platform in the SAP certified EC2 instances.

Security Considerations

Entire setup is configured using private subnet and environments are isolated with security groups naming convention & tagging.	Subnets NACLs & Security groups are implemented to restrict certain ports between servers.	Access to the AWS Infrastructure has been restricted to the specific IP's.	Root account credentials protected using MFA and is not used for any day-to-day activities.
Using IAM, users and groups are restricted to access specific AWS resources as per the requirement.	All users will connect over Direct Connect and VPN.	CloudTrail enablement & store in specific S3 bucket with logs enabling & restricted access policy.	

Automations Implemented

To maintain the same application state between DC and DR, Sify ensured automatic patching and compute instance is in power-on state only during patching time.	Auto-Scaling is enabled to adjust compute resources automatically to optimize availability, cost, and maintain the performance level of applications hosted in AWS.
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Reliability and Performances Considerations

S3 buckets creation to store static contents – as per need from SAP application.	AWS Import/Export enabled to perform data transport from S3 efficiently.
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Cost Optimization

To ensure cost optimization of all Amazon EC2 Instances, Sify has automated to start/stop Amazon EC2 Instances by implementing scripts and Amazon EC2 Instances are resized based on the requirement and Sify placed servers as on-demand pricing model.

Project Timelines

The implementation of the entire DR Infra on AWS Cloud project including the production servers in DR took 1 month.

Customer Benefits

The standard SLA of EC2 Instance is 99.5% and the SLA for availability and uptime assurance for Managed Services is >95%	Committed latency, Guaranteed availability & Flexible pricing.	Achieved more robust operational and performance excellence along with reduction in TCO.
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