



# // ADAMA INDIA Disaster Recovery on aws



## **ADAMA INDIA PVT LTD**

### **ABOUT CLIENT**

// ADAMA India Private Limited is a leading manufacturer and distributor of crop protection solutions, supplying efficient solutions to farmers across the full farming value-chain. Operating in over 45 countries around the globe today.

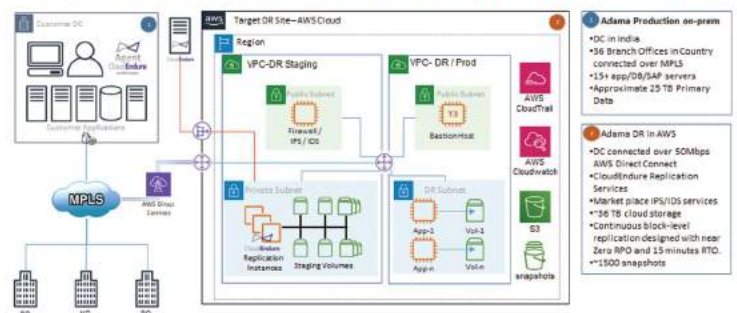
## PROBLEM STATEMENT

- Adama's existing solution plagued their efficiency with issues related from VSS to impediments at VM level replications through unforeseen downtimes. They faced constant challenges in replication of dynamic disk datas coupled with issues at iSCSI disks replication made their DR setup highly inefficient yet an expensive infra to manage.
- Plagued by the high over run expenses and constant downtimes, Adama started looking for a setup which not just addresses their most pressing problems yet highly scalable and cost effective for further integration to their on-premises SAP and other workloads encompassing their entire logistics portfolio of Inventory management to dispatch followed by invoicing.
- Due to the budget cuts coupled with challenging times; Adama's quest for low-cost yet highly effective & compliant solutions seemed to be fallacious. Thus, when Locuz with AWS presented a perfect solution which met Adama's all 3 pillars of – Cost, Efficiency & Compliant. A solution that is highly scalable yet easy to manage and spin up during times of Disaster or to perform periodical DR drills.

## SOLUTION OVERVIEW

- The Unique Solution was proposed with the help of AWS – Pay as you go strategy and low cost 24x7 running replication of Production infrastructure.
- Direct connect service used to Connect on premise server to Cloud and AWS CloudEndure is used for Replication from Production to AWS staging environment. Enabling all applications in Sync.
- The Production Application Instances are replicated and stored in Elastic Block storage volumes hence less bill for the AWS infra. Required RPO/RTO for the App and DB are achieved as well.

### Adama Disaster Recovery Architecture



## INFRASTRUCTURE

- Server will be launched in the AWS Mumbai Region. Access will be controlled via Identity and Access Management (IAM) Console of AWS. Custom IAM Policies and Roles will be written to secure the access.
- All the servers have been launched under a Virtual Private Cloud. Virtual Private Cloud is like a cloud in a cloud and private subnet components are not accessible to the internet world.
- Server Instances and DB instances will launch in a Private Subnets as this won't be exposed on public. Subnets are used to virtually segregate the servers into various groups. Each subnet is launched under its own subnet range for additional security. Network Access Security List (NACL) is a stateless firewall that provides both inbound and out bound access restriction.
- Server instance (OpenVPN) have been implemented in public subnet.

## SEAMLESS REPLICATION LEVERAGING CLOUD ENDURE

- Locuz has implemented Cloud Endure, to replicate the on-premises infrastructure to AWS Cloud.
- CloudEndure agents are installed in the on-premises, to initiate replication.
- Cloud endure console enables to setup the environment with defined Security groups and IAM roles, if it is defined perfectly the replication will take place without any error.
- Each block of the volumes were replicated from on-premises to Cloud.
- With the help of Direct Connect peering establishment of connection between on premises and AWS cloud are also done.
- CloudEndure works in DR-Drill Mechanism, in which if any disaster occurs in on-premises, the total control will be taken from On-premises infrastructure to Cloud infrastructure.

## SECURITY

- Each server is launched in a security group. Security groups are stateful firewall where-in we can control the inbound IP and Port access.
- APP Server in the Virtual private cloud Private subnet do not have public Internet connection. For the server to access the public Internet a Network Address Translation server will be provisioned Network Address Translation behaves as a proxy for the server inside the Virtual private cloud. Server will get access to Internet only through this Network Address Translation Server.

## OUTCOME

- Ease of Management: Single pane view of full DR Infrastructure.
- Highly Secure: Encrypted in-transit replication and Role based IAM access.
- Low Cost: Selected the right EBS volume type meeting the performance (IOPS) requirement.
- Better Performance: By overcoming the limitation of VSS based replication

## BENEFITS

- Overall, 28% annual cost reduction by storage optimization and using Cloud Endure as DR Replication tool over ASR Tool.
- RTO improved to 15 minutes from 2 hours and RTO to 5 minutes from 15 minutes
- In the event of DR failover, the print service of SAP comes up 25% faster in comparison to the previous implementation.

# // ABOUT **LOCUZ**

Locuz is an IT Infrastructure Solutions and Services company focused on helping enterprises transform their businesses through innovative and optimal use of technology. Our strong team of specialists, help address the challenge of deploying & managing complex IT Infrastructure in the face of rapid technological change. The greatest of these changes is the Cloud; and Locuz is uniquely positioned to help enterprises leverage the power of cloud technologies while avoiding the pitfalls of security, identity and service management.

