Harbour1®
Enterprise Cloud Platform

Powered by

Case Study

Cloud Migration From Global Public Cloud Provider To Harbour1®

About The Client

One of the top NBFCs in India, founded in 1988, its head quartered in Mumbai and is listed on BSE. It is involved in unsecured loans, lending, and allied activities to micro, small, and medium enterprises.

They come with deep understanding of the real problems faced by small businesses every day - beginning with collateral free access to credit. They are a passionate team of people who are reimagining the future of small businesses in India by applying technology, data, analytics and human.

Their *mission* is to give small businesses access to a holistic support system, through cost efficient, innovative technology and a committed network of partners.

Requirements in Brief

Hosting Services:

Client had all of their workloads running on a global public cloud provider. Owing to the operational issues, non compliance to data localisation and dynamic cost escalation , they were on the look out for the right fit Indian cloud provider to migrate and operate.

End to end support for migrating out of incumbent global public cloud provider:

They were not only looking an alternate solution but also for end to end support in migrating all their workloads seamlessly out of their incumbent global public cloud provider

Business Drivers

- Scalability Of Cloud
- Savings On Capital Expenses
- High Availability
- Round The Clock Support

Solution Offered

Enterprise cloud hosting

Migration of all workloads from incumbent global public cloud provider to Harbour 1®

Benefits Delivered

- 99.95% Uptime
- Ease of Migration
- Stringent Security
- Expert Support
- Lower TCO

Migration Project: Goals & Approach

Project Goals

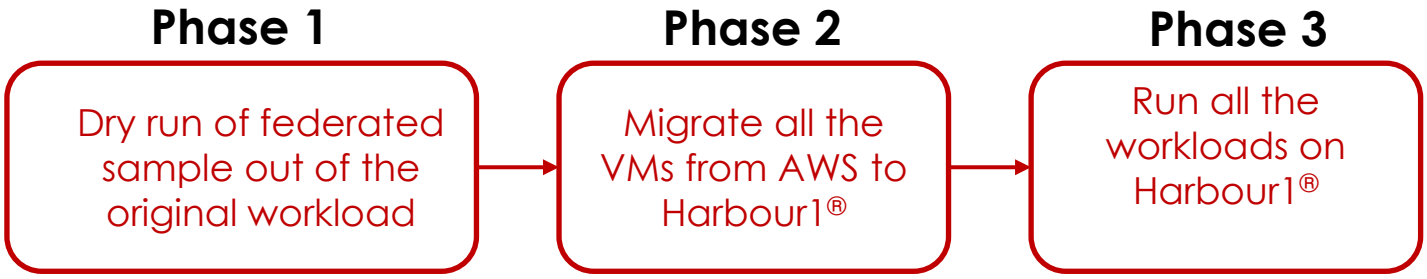
Client had 23 workloads on AWS, which were serving their customer's loan processing and disbursements. The environment was not only handling critical financials but was also hosting sensitive citizen data which was growing at an exponential rate with their growing business.

Hence, they were in search of a right cloud solution, which would not only be TCO optimal, but also ensure there is zero down time while migration, uncompromised performance & data sovereignty, availability and billing linearity. They also had a precursor that the new platform should support all kinds of existing workloads running out of AWS, such as Hadoop, Jenkins, LDAP, Applications (LMS, LOS, Disbursements, Collections etc.), MongoDB, SVN etc.

After an extensive 3 months evaluation process and POCs across multiple services providers, Harbour1® was found to be a right fit across all stringent parameters and compliances.

Project Approach

Pi has taken up this project on a 3 steps' approach to achieve the end objective:



- Audit and acquire mirror details of each workload running in AWS
- Gathering information on the type & versions of all the Operating Systems being used, including partitions and size of each, software installed on each VM, etc. All of there to build to prepare the target VMs on Harbour1®.
- Map and collect, source Network topology, in order to prepare the target environment.
- Data footprint acquisition, to assess, plan & size the required bandwidth for migration and hence forth operation

Selection of right tool for migration

Migration Tools available in Pi ecosystem :

- **Zerto -** Supports VMware, Hyper-V & Xen Platforms only.
- **SRM –** VMware Proprietary, and works with VMware platforms only.
- **Carbonite –** Supports any source like physical, virtual or cloud-based environment into any destination.

The tool is so intuitive that using only a few clicks, we can easily automate server migrations. These factors make it an apt choice for the project

Prerequisite for migration tool

The tool must support:

- **Operating Systems -** Windows, RHEL, Ubuntu, CentOS, SUSE
- **Cloud/Virtualization Platforms –** Heterogenous.

Preparations for Project Execution

The tool has a set of requirements on both the source & target ends for VM migration:

- Establish a secure communication between source and destination sites using IPsec Tunnel.
- Prepare all 23 VMs at destination site with same CPU, Memory, Storage & install Operating Systems along with similar partitions matching with source VMs.
- Install right version of migration tool agents at both the sites, based on OS versions .
- Disable SELinux on all Linux Servers & OS Firewalls on Windows Servers.
- Firewall configuration: Ports 6320, 6325, and 6326 kept open for UDP and TCP, for both inbound and outbound traffic.
- Installed & Configured the migration console server for both side communication to be verified.

Migration Procedure & Execution.. Cont.

Pre-Migration Preparation

- Validated whether all the source and destination servers are discovered in the Console.
- Configured 'Migrate' jobs for each set of servers by specifying necessary credentials.
- Prepared a plan of action based on customer priority to perform migration.

Execution of VM Migration

- Groups created based on customer priority and job readiness done.
- Source servers identification and migration readiness indication on console
- Job execution based on batch priority set an as per the groups created.
- Micro level tracking of migration process. On completion of synchronization, the cutover was initiated in line with the migration option selected.
- One confirmation of cutover, at the console, the migration was declared complete and sustained.

Challenges

- Corrupted files at the source systems lead to re-initiation of the migration jobs causing delay in data migration
- There were instances where the anti-virus scans locked the data files, delaying the migration marginally.

How Did We Mitigate The Challenges

- In-depth analysis of the logs to identify the root cause of why the migration jobs got re-initiated. All the corrupted files we removed & this resulted in a smooth data transfer
- Logs indicated that the anti-virus service was locking the data files. Hence, the traffic was routed through our enterprise scrubbing center. The incumbent anti-virus applications were disabled to ensure an uninterrupted data migration.

Hosting with Harbour1®

Applications can be moved from on-premise to Harbour1 or from any Public Cloud environments to support and accelerate the exponential growth of the organization. The advantages of Harbour1 include but not limited to-

Scalability
which can handle dynamics business demands and heavy workloads.

High Uptime and Availability
is built into the Cloud Hosting environment. Workloads can be auto-scaled depending on requirement, thus avoiding manual intervention

Lower TCO and Savings on capital expenses
around Infrastructure, Maintenance, Upgradation and skilled resources.

Benefits delivered with Harbour1®

Harbour1® being a time tested, robust enterprise cloud platform, assures highly efficient and resilient environment for mission critical SAP applications to run seamlessly. Being delivered out of multi locate Software Defined Data Centers (SDDC), the cloud services are available on demand and at the edge.

Key benefits delivered beyond TCO optimisation :

Data Localization

Absolute regulatory compliance to the digital data protection laws of land, of India!!

Flexibility @Core

Get the built-in flexibility of a public cloud, while being on board a secured private cloud

Hypervisor Of Choice

Enterprises get to pick the hypervisor of choice for their workloads

Scale @Will

Multi-dimensional and real-time scaling of resources aligned to your business needs

Multi-tiered Security

Zoned security layers protecting data from vulnerabilities and threats

99.995% Uptime Availability

Delivered out of self-owned, multi locale Uptime Institute TIER IV data centers

Powered By

PCI DSS Certified

AICPA SOC 2 Type II

STQC Certification

NABCB ISMS003

ISO 27001 | 20000 | 22301 | 9001 14001 | 27017 | 27018 Certified

HIPAA Health Insurance Portability & Accountability Act

TIER IV DESIGN

SAP Certified in Cloud | Infra | HANA® | Hosting Operations

Data Centers, Cloud Availability Zones & Offices

Amaravati | Kochi | Bengaluru | Chennai | Delhi | Hyderabad | Mumbai