Case Study ON LEADING NBFC

About

The client is a leading NBFC headquartered in Mumbai, India. Established in 1988 and renamed in June 2017, they specialize in providing unsecured loans and lending services to micro, small, and medium enterprises. With a strong focus on addressing the challenges faced by small businesses, they leverage technology, data, analytics, and human expertise to reimagine the future of small businesses in India. Their mission is to offer comprehensive support to small businesses through cost-effective, innovative technology and a dedicated partner network.

The Challenges

- Corrupted files at the source systems lead to the re-initiation of the migration jobs, causing delays in data migration.
- There were instances where the anti-virus scans locked the data files, delaying the migration marginally.
- Handling critical financials and sensitive citizen data
- The exponential growth of data with their growing business
- Ensuring TCO optimization of the new cloud solution
- Zero downtime during migration
- Uncompromised Performance and data sovereignty
- Availability of the cloud solution
- Billing linearity of the new platform
- Support for all existing workloads running out of AWS, such as Hadoop, Jenkins, LDAP, Applications (LMS, LOS, Disbursements, Collections, etc.), MongoDB, SVN, etc.

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 Pi Enterprise Cloud

Benefits Delivered

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

Business Needs

Hosting: Workloads were running on a global public cloud provider, but due to operational issues, non-compliance with data localization, and escalating costs, they needed to find a suitable Indian cloud provider for their hosting needs.

End-to-End Support for Migration: In addition to an alternative solution, they sought comprehensive support to seamlessly migrate all their workloads away from their current global public cloud provider.

How Pi Led the way

After an extensive 3-month evaluation process and POCs across multiple service providers, Pi Cloud was found to be the right fit across all stringent parameters and compliances.

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

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 were 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.

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 the migration.

- 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 the partitions and size of each, the software installed on each VM, etc. All of this is built to prepare the target VMs on Pi Cloud.
- Map and collect the source Network topology in order to prepare the target environment.
- Data footprint acquisition is required to assess, plan, & size the required bandwidth for migration and, henceforth, operation.

Range of Migration Tools and Recommended Solution

- Provide a range of migration tools available in their ecosystem.
- Offer expertise in assessing the pros and cons of each migration tool and recommending the most suitable one for the project.
- Recommend Carbonite as a tool for migration due to its ability to support any source physical, virtual, or cloud-based environment into any destination and its ease of use in automating server migrations.
- Ensure that the chosen tool supports the necessary prerequisites for the migration, which include:
    - Operating Systems: Windows, RHEL, Ubuntu, CentOS, and SUSE
    - Cloud/Virtualization Platforms: Heterogeneous

Execution of VM Migration

- Groups created based on customer priority and job readiness.
- Source server identification and migration readiness indication on the console
- Job execution is based on the batch priority set and as per the groups created.
- Micro level tracking of the 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.

Assist with preparations for project execution, which include:

- Establishing a secure communication between source and destination sites using an IPsec Tunnel
- Preparing all 23 VMs at the destination site with the same CPU, memory, and storage, and installing the operating systems along with similar partitions matching the source VMs
- Installing the right version of migration tool agents at both sites based on OS versions
- Disabling SELinux on all Linux Servers & OS Firewalls on Windows Servers
- Configuring the firewall to keep Ports 6320, 6325, and 6326 open for UDP and TCP for both inbound and outbound traffic
- Installing & configuring the migration console server for both sides' communication to be verified.

Hosting with Pi Cloud

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

Scalability
which can handle dynamic business demands and heavy workloads

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

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

Benefits delivered with Pi Enterprise Cloud

Pi Cloud being a time-tested, robust enterprise cloud platform, assures a 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.

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
Enterprises get to pick the hypervisor of choice for their workloads

99.995% Uptime Availability
Delivered out of self-owned, multi locale Uptime Institute TIER IV data centers

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