Leading banking and financial enterprise trusts AWS and cloudxchange.io as the cloud partner

AWS Cloud Infrastructure hosts the mission critical workloads and resolves multiple challenges for the leading BFSI enterprise
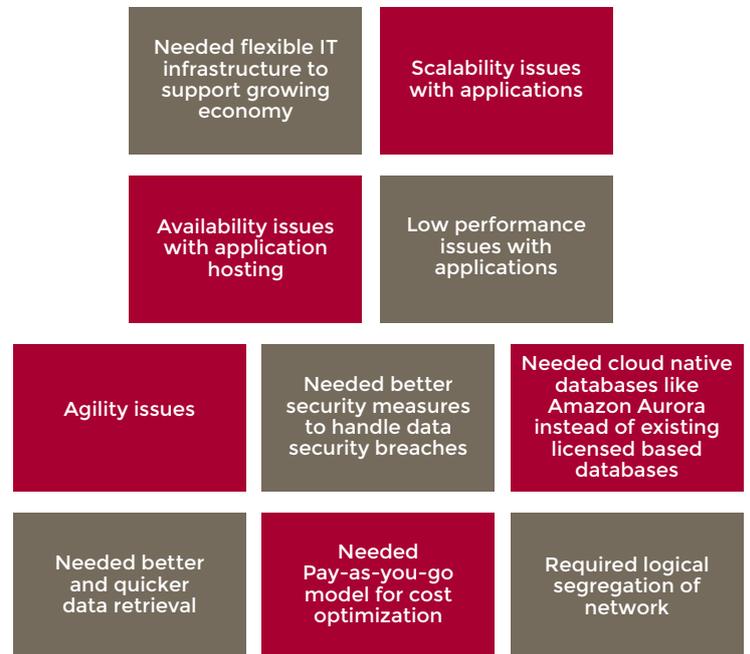
About the client

The client is one of the premier asset management companies in India, with over two decades of a track record in investment excellence.

The firm commenced its stockbroking business in the 1860s. It is one of the oldest and most respected financial services firms in India. The family behind the group has been very influential in the growth and professionalization of capital markets and money management business in India.

The challenges faced by the firm:

Banks in India have a large branch network with varied needs distinct to regions and customers, indicating the need for highly customized technologies. The emergence of FinTech/non-bank startups is changing the competitive landscape in financial services. The banking industry is undergoing a shift with changing business models, mounting regulation and compliance pressures, and disruptive technologies. The increase in customer demands and engagements has forced traditional institutions to rethink the way they do business. BFSI too, realized the need to expand its reach to the end customers by effective and hyper-personalized digital messaging on websites and apps. A requirement for a stable, secure, and flexible IT infrastructure that could be available around the clock was observed. BFSI sector faced many challenges with their traditional setups and was looking to implement intelligent automation solutions to handle high-volume requests, which would help with the service level consistency and optimization of workforce alignments.

Needed flexible IT infrastructure to support growing economy	Scalability issues with applications
Availability issues with application hosting	Low performance issues with applications

Agility issues	Needed better security measures to handle data security breaches	Needed cloud native databases like Amazon Aurora instead of existing licensed based databases
Needed better and quicker data retrieval	Needed Pay-as-you-go model for cost optimization	Required logical segregation of network

But the leading BFSI saw an opportunity in these challenges and began to re-imagine its business growth strategy with the right technology. To remain one of the top players in the banking and financial industry, it inspected ways to overcome challenges and realized the potential to leverage cloud infrastructure. A transition from on-premise support to infrastructure-as-a-service, hosted on a cloud, seemed to be the most suitable solution due to the benefits of scalability, reliability, and cost management features.

The search for right technology and partner:

The BFSI client found it worth engaging AWS cloud-managed service partner to handle the cloud infrastructure and fully support BFSI for new deployments, security, and services automation. They were determined to find a better solution for data backup on the cloud as well. BFSI engaged cloudxchange.io, an AWS Advanced Consulting Partner, to deploy and manage their on-premises infrastructure on AWS cloud and leverage the many cloud benefits.

Following services were shortlisted for deployment on the AWS cloud:

- Amazon Identity and access management
- Amazon Simple storage service
- Amazon EC2
- Amazon VPN
- Amazon Relational Database service
- AWS Trusted Advisor
- Amazon CloudWatch
- Amazon KMS
- Amazon CloudTrail
- Amazon Flow log
- Amazon Guard Duty
- AWS Config
- AWS Inspector
- Amazon Cloud Formation
- AWS Elastic Kubernetes service
- AWS Lambda
- AWS Relational Database service
- AWS Glacier

Solution proposed by cloudxchange.io:

Solution approach for Infrastructure-on-cloud involved preparation of an accurate plan by comprehending the current challenges of BFSI and creation of a roadmap to where BFSI intended to reach. Hence a complete upgrade was planned. Hosting monolithic IIS MSSQL standard application on AWS was built using the below well architected standards

- Single source of truth with separate landscape for production and non-production environment.
- Next generation firewall to protect against Gen-5 attacks
- Communication of App and DB traffic via NGFW
- Identity and access management with least privilege mechanism, MFA for the user credentials
- SQL log shipping for HA and Near DR and direct connect using different ISP for redundancy
- HA for required applications and placed then behind the internal application load balancer
- VPC endpoints are required to access AWS services privately from AWS LAN network instead of letting them traverse internet. Example of such services- EKS cluster, AWS S3
- Configured VPC flow logs to monitor traffic coming in to the NIC of the server and outgoing traffic

- Snapshot policy for all the servers apart from the Commvault backup that has been configured on a virtual machine
- Application servers configured at multiple AZ with load balanced using AWS Application load balancer
- CloudTrail logs for the user activity logging has been enabled for customer account and the logs are moved to S3 bucket for audit purpose and long-term retention
- Kubernetes Cluster deployment
- Servers are configured with auto start /stop mode for cost optimization
- Production servers accessed restricted via bastion hosts for additional layer of security
- Configured Lambda for achieving custom DNS query resolving from on-premises to Application load balancer
- Configured AWS inspector for findings that are non-compliant to CIS benchmarks in the architecture components deployed
- Using AWS Config for CMDB management
- Configured Guard Duty for analysis of DNS, VPC and CloudTrail logs
- Configure Snapshot Lifecycle Policy for the servers in AWS

Third Party Tools Used:

- Third party monitoring using Site 24 x 7
- Incident management using Fresh Service
- Commvault for backup using native snapshots
- Access management using Acros
- Next-gen firewall using Palo Alto
- Firewall and log management using Minefield
- Third party SaaS using Cloudflare WAF
- Application monitoring using New Relic

Platform:

Operating System	Database
Windows 2008 R2 Datacenter edition (Custom Hardened Image)	MSSQL Standard Edition 2012
Windows 2012 R2 Datacenter edition (Custom Hardened Image)	MSSQL Standard Edition 2014
Amazon EKS Images	Postgre SQL RDS 11.5
Windows 2016 Datacenter Edition (Custom Hardened Image)	MSSQL Standard Edition 2014
Centos 7	Oracle RDS Standard 12.0.2

Why cloudxchange.io was chosen

cloudxchange.io displayed the power and benefits of adopting public cloud over private hosting vendors. The benefits of Amazon web services were described and customized as per the requirements of BFSI. The managed services portfolio and the pitching offered by cloudxchange.io was the key differentiator over other vendors. Finally, cloudxchange.io was shortlisted as it satisfied the vendor shortlisting criteria of

- Vendor verification
- Technical Qualification
- Security Best practices
- Commercial negotiation
- Value added services
- Reference from industry

Features and Benefits with cloudxchange.io:

Incident management:

- Service desk web portal for managing the incidents, alerts, sending alerts to user
- 24 X 7 help desk on Phone, Email, web-based support for customers
- Users enabled to raise tickets via email, self-service portal, phone, in person as per ITIL standards

Security:

- Multi-level data security with password and data encryption
- Enterprise Grade Next generation firewall implementation (Palo Alto)
- Advanced Threat Prevention
- Advanced cyber security

Reliability:

- Durable data storage provided by Amazon S3

Cost Optimization:

- Servers can now run only for the duration as per requirements
- Reduced capital expenditures on hardware, software

Server Monitoring:

- A quick weekly summary on the status and performance of server

Report:

- Availability summary, Busy Hours, Health Trend, Performance reports
- History of all interactions between customer and help desk

Productivity:

- Improved efficiency by freeing up valuable financial and IT staff resources

DR:

- Availability of data restoration of applications on cloud in case of outages

cloudxchange.io with its operational excellence proficiencies was identified as being suitably positioned to handle the cloud infrastructure and fully support BFSI for new deployments and services.

Customer Testimonials

"We were in an urgent need for a stable and secure IT infrastructure that can procure business growth with right technology. cloudxchange.io offered a well – planned approach to face the challenges. We are glad we partnered with cloudxchange.io.

CEO of the Leading Bank

"Exceptional customer service and a calculated and tested strategy makes cloudxchange.io stand apart. We value it's suitably handled cloud infrastructure helping us build and implement strategies to ensure future success.

CIO of the Leading Bank

About cloudxchange.io

cloudxchange.io is an emerging leader in the cloud-based services. cloudxchange.io is a Multi Cloud- Managed Services Provider. Our team is a blend of technology and business visionaries who render strategic direction to cloudxchange.io executive team in an economic and business environment. The Management team has a combined 50+ years of rich expertise in DC & Cloud Space. With our team's industry experience and business wisdom, we deliver customised services and manage complex cloud-based solutions for Enterprise Class Workloads, harness the industry's best practices and provide the right perspective and guidance for every aspect of our operation.

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