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Migrating On-Premises Microsoft Workloads to a Scalable Infrastructure in AWS

Challenge

Banks in India have large branch networks with varied needs distinct to regions and customers, indicating the requirement for highly customized technologies. The emergence of FinTech/non-banking startups is changing the competitive landscape in financial services. The banking industry is undergoing a shift with changing business models, mounting regulation with compliance pressures, and disruptive technologies. The increase in customer demands and engagements has forced traditional institutions to rethink the way they do business.

One of India's fastest growing private sector bank too realized the need for better technological processes to become more responsive and remain relevant in a world of escalating competition. A requirement for a stable, secure, and flexible IT infrastructure that could be available round the clock was observed. The bank faced many challenges with its traditional on-premises data centers and was looking to implement intelligent automation solutions to handle high-volume requests, service level consistency and optimization of workforce alignments.

Challenges the bank faced with its on-premises data centers:

1. **Inability to scale with demand** - As customers' demands grew, they needed to expand their existing applications seamlessly without having to worry about managing the underlying infrastructure.
2. **Inability to quickly deploy infrastructure when needed** - Quick turnaround time to deploy new data servers was very important for the bank's future plans.
3. **Managing costs** – The on-premises data centers were becoming too expensive and inefficient to support its growing business operations. The bank wanted to be able to scale with demand while keeping the costs down.
4. **Security Concerns** – There was a need for better security measures with less infrastructure complexity to handle data security breaches.
5. **Need for better disaster recovery measures** - Downtimes faced in the existing infrastructure of the bank's on-premises data centers took longer to recover. Identifying and analyzing the problem and then fixing it quickly was a crucial business objective.

This bank 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-premises data centers to cloud-hosted applications seemed to be the most suitable solution due to the benefits of scalability, reliability, and cost management.

This bank found it worth engaging **AWS cloud-managed services** to handle the cloud infrastructure and fully support it for new deployments, security, and services automation.

They engaged the services of **Applied Cloud Computing (ACC)**, an Advanced AWS Consulting Partner, to help migrate their Microsoft Workloads to the AWS cloud.

Solution

The Microsoft Workloads migration to the cloud, involved the preparation of an accurate plan by comprehending the current challenges the bank faced and creation of a roadmap to where it intended to reach.

Their migration journey spanned over four key milestones.

1. **Assess** - At first, a Migration Readiness Assessment (MRA) was done to review the bank's readiness for cloud migration. This assessment gave a clear picture of what to migrate as well as justified a business case and the total cost of ownership (TCO) for migration.

2. **Discover** - A total of 40 applications along with its dependencies were identified for migration. A solution was designed and was to be implemented in two phases.

3. **Mobilize** - In order to gain maximum benefit, seamless integration, minimize time-intensive processes, and flawless execution, we adopted a **'10-in-10'** strategy, where we migrated 10 applications of various complexities in 10 days. This pilot was efficient, successful, and saved time.

4. **Migrate** - Leveraging on early success, we stepped up the game with a **'30- in-30'** strategy; Migrating the remaining 30 applications in 30 days. Migration of Microsoft Workloads from low to high complexities was achieved and with that, all of the bank's critical workloads moved to the AWS cloud.

We were able to migrate critical applications to AWS, including retail assets, business banking operations, human resources and customer facing websites from on-premises data centers to the cloud. This migration not only proved to our client that an on-premises data centers can be seamlessly integrated into the AWS Cloud but also addressed every challenge they had with their existing infrastructure.

Benefits

- **Seamless Scaling** - AWS Cloud has the capability to implement right sizing. Before initiating this project, our client had to forecast the IT resources to be provisioned and more often than not, the estimates would be on the higher side. With cloud, their IT team no longer have to worry about resources and procurement. Our solution ensured that they got scalability and ease of infrastructure deployment to handle peak loads and sudden spurts. The procurement cycle time of **6-8 weeks was reduced down to minutes and hours**. AWS Auto Scaling was used to ensure the underlying resources could be scaled effortlessly with demand and without the hassle of having to manage the hardware.

- **Save on IT Spending** - Cost being an important metric was optimized as AWS Cloud allows you to pay as you go, pay only for the resources consumed and only for the time for which the resource is consumed. Our ongoing support to the client ensures that they are always on the **right pricing plan**, their **storage costs are minimized** as well as their **resources are right-sized for maximum utilization**. Additionally, one can save money by moving their Microsoft licenses to dedicated hosts on AWS. The licensing is included within the cost of an instance, so it not only reduces licensing cost but the management overhead of maintaining those licenses.

- **Reliability** - For quick data recovery from downtimes and enhanced security, it is possible to select multiple availability zones and host Microsoft Workloads across different connected AWS regions resulting in **lower latency and higher fault tolerance**. AWS also helps predict the moment when you need to scale up or down your infrastructure capacity without the risk of interruptions. Data Recovery drills can be planned and executed by the client to test business continuity.

- **Enhanced Security** - By storing Microsoft Workloads centrally, AWS offers much stronger security than traditional data centers. Critical resources are placed in private subnets with no access to the public Internet and Internet-facing applications are placed behind firewalls and encryptions, keeping your data secure.

An obsessive focus on delighting customers is key to success in the financial services industry, and now this bank can use cloud technology to find new ways to deliver innovative experiences to its customers. By selecting AWS as its preferred cloud service and ACC as its migration partner, the bank can now tap into the world's broadest and deepest portfolio of cloud services to drive its digital transformation journey. This unlocks new possibilities to further transform its service offerings and engagement with customers.

Client's Testimonials

"The traditional procurement cycle for buying infrastructure on-premise was a big hurdle for meeting business expectations. Cloud is cost neutral for us. And during times such as the present, our transaction volumes had shot up over 6 times. It would have been difficult to scale up the infrastructure during the pandemic. AWS has been a blessing for us."

Chief Executive Officer; India's fastest growing private sector bank

"When we do allocation for on-prem, cycle time for procurement was 6-8 weeks. But we wanted to change this to cut and do our job in shorter time cycles, which is in minutes and hours. This is where the cloud comes in. And we decided to go ahead with AWS. Cloud has given us flexibility. "

Chief Information Officer; India's fastest growing private sector bank