

CLOUD COMPUTING IN BANKING

INTRODUCTION :

The financial industry is revolutionized by cloud computing in banking because it provides scalable, adaptable, and affordable IT solutions. Large amounts of data may be processed and stored securely by banks, resulting in more tailored services and improved consumer insights. Banks may save infrastructure costs, improve operational efficiency, and swiftly adjust to changes in the market by implementing cloud technologies. Cloud systems facilitate fraud detection and risk management by supporting cutting-edge technologies like artificial intelligence and machine learning. They also use strong security measures to guarantee adherence to regulatory norms. In general, cloud computing promotes agility and innovation in the banking sector, enhancing client satisfaction and service delivery.

Cloud computing is expected to be one of the fastest-growing technologies in the coming years. Business applications will be the largest market for cloud services spending, with a gradual transition from on-premise to cloud-based services especially for general business applications like customer relationship management (CRM) and enterprise resource planning (ERP).

CLOUD COMPUTING CAN HELP FINANCIAL INSTITUTIONS IMPROVE PERFORMANCE IN A NUMBER OF WAYS :

1. Cost Savings and Usage-based Billing

Financial organizations can reduce their high upfront capital expenditure into smaller continuing operating costs by utilizing cloud computing. Heavy expenditures on brand-new gear and software are not required. Furthermore, because of the special features of cloud computing, financial institutions can pay for the services they use as needed.

2. Business Continuity

When using cloud computing, technology management falls under the purview of the provider.

Higher levels of data protection, fault tolerance, and disaster recovery are achievable for financial firms. In addition, cloud computing offers higher levels of redundancy and backup at a lesser cost than traditional managed services.

3. Business Focus and Agility

Shorter product development cycles are made possible for financial institutions by the flexibility of cloud-based operating models. This facilitates a quicker and more effective response to banking clients' needs. The cloud saves initial setup time since it requires less infrastructure investments due to its on-demand availability.

The creation of new products can also proceed without requiring a capital commitment thanks to cloud computing.

Businesses can also migrate non-critical services, including software updates, maintenance, and other computer problems, to the cloud via cloud computing. Consequently, businesses can concentrate more on the financial services industry rather than IT.

4. Green IT

By moving their services to a virtual environment, organizations can use cloud computing to lower their energy usage and carbon footprint associated with building up a physical infrastructure. It also results in less downtime and more effective use of computer resources.

CHOOSING THE RIGHT MODEL :

Financial institutions can choose to go from a capital-intensive strategy to a more adaptable business model that decreases operating expenses by utilizing cloud service models.

Choosing the best cloud services model to meet your demands is essential to success. This section examines several cloud computing service, operations, and deployment models.

1. Cloud Service Models:

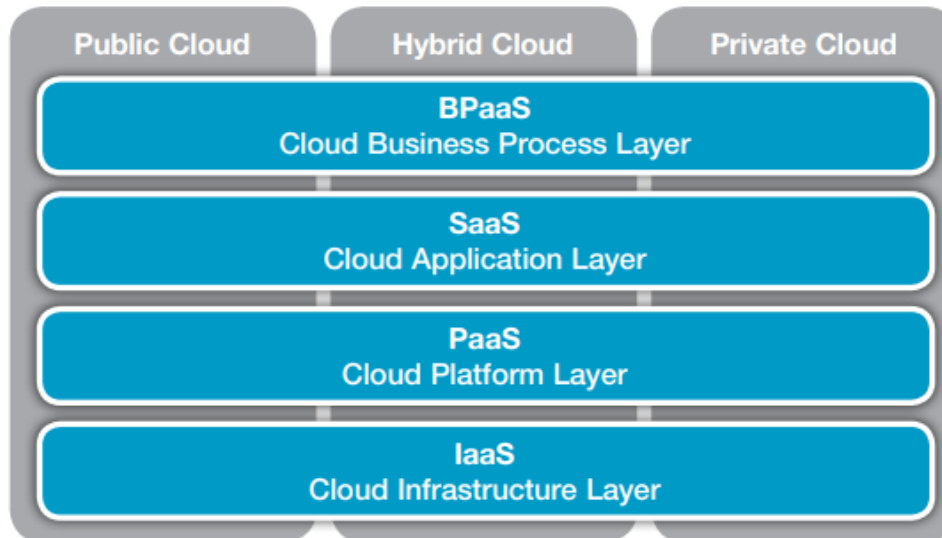
- i) Business Process-as-a-Service (BPaaS)
- ii) Software-as-a-Service (SaaS)
- iii) Platform-as-a-Service (PaaS).
- iv) Infrastructure-as-a-Service (IaaS)

2. Cloud Deployment Models

- i) Private clouds
- ii) Public clouds
- iii) Hybrid clouds

3. Cloud Operating Models

- i) Staff augmentation
- ii) Virtual captives.
- iii) Outsourcing vendors.



MOVING TO THE CLOUD: THE CHALLENGES

When a bank moves into cloud computing, there are two primary challenges that must be addressed:

Security: The confidentiality and security of financial and personal data and mission-critical applications is paramount. Banks cannot afford the risk of a security breach

Regulatory and compliance: Numerous banking regulators mandate that banking clients' financial information remain in their nation of origin. Data cannot be combined with other data, for example, on shared servers or databases, according to certain compliance standards. Consequently, banks need to know exactly where their data is stored on the cloud.

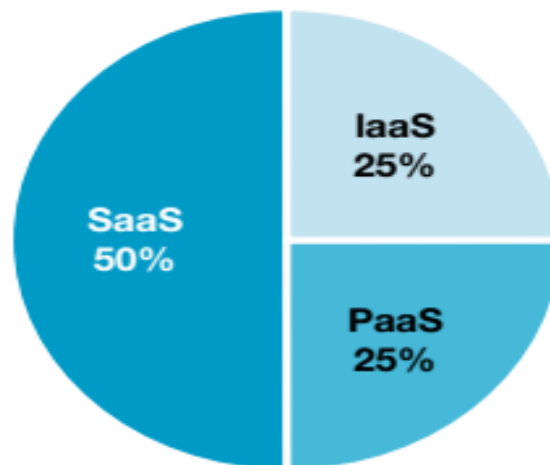
Financial institutions need to choose the appropriate operational models, deployment strategies, and services to handle security and compliance issues. It is anticipated that banks would own and run the cloud during the early stages of cloud computing adoption, with service providers assuming more ownership and control of the cloud infrastructure as cloud computing develops and more stringent controls become accessible.

Moving to the Cloud: Where to Start?

Applications are probably the main driver behind a bank's decision to go to the cloud, however there may be other factors as well. The capital cost of building new infrastructure has always been a major barrier to large expenditures in new technology. Financial organizations simply need to budget for operating costs when using cloud computing, and they only need to pay for the services they really use. Because of this, testing new applications in the cloud is now simpler and more affordable than it is on existing traditional infrastructures.

It is not possible for a single cloud computing services model to satisfy every financial institution's technological needs. Rather, banks ought to create and manage a portfolio of applications that includes both on-premises and cloud-based software. Although more money is anticipated to be spent on legacy systems, cloud-based services are best for more recent business sectors. It is anticipated that cloud-based services, particularly those offered over mobile devices and the Internet, will offer the benefits of quicker turnaround times for product and service offerings as well as reduced investments in adopting corporate strategies.

**Exhibit 3: Worldwide IT Cloud Services
Spending by Area, 2012F**



Source: *Global Spending on Cloud Computing: An Evolutionary Road Map for Financial Services*, TowerGroup, May 2010

CONCLUSION :

Financial institutions should select service and delivery models that best meet their needs for operational flexibility, cost reductions, and pay-as-you-use models while preparing for cloud computing projects in the near future.

According to Capgemini, banks should approach cloud computing services gradually and progressively, assessing each project according to the kind of applications and data involved. Projects using business content management and customer relationship management may be lower risk. Projects with a higher risk profile will focus on essential business functions like core banking or wealth management.

In the long run, Capgemini anticipates that banks will have a mix of on-premise and cloud-based services in their application portfolio, supplied through a variety of private, hybrid, and public cloud-based deployment options, with the proportion of cloud services in the service mix steadily rising. It is anticipated that banks would increasingly choose private clouds as their deployment model for cloud services, providing them complete control over the ownership and management of their cloud infrastructure.