# CLOUD COMPUTING FOR BANKING AND INVESTMENT SERVICES

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Abstract: The banking industry is facing several changes. Control is now in the hands of the customer, rather than the bank. Customers are driving new business models. Technology changes the traditional business transformation. Banks need to react to this new customer-driven environment with innovation in business models, operations and IT. For banks, the value proposition for cloud computing affects the entire business. Cloud technology offers a new model for delivering innovative client experiences, effective collaboration, improved speed to market and increased IT efficiency. Cloud computing provides a platform for optimizing financial services operations while creating and delivering the kind of innovative services that differentiate and propel your business forward. It is agility that will be the lifeblood of successful financial enterprises going forward, and cloud computing is one way of gaining that agility. Cloud services deliver revolutionary performance that empower the banking industry to automate and manage their processes.

Index Terms - A Banking, Cloud computing, cloud, model optimization

#### I. INTRODUCTION

One of the most widely growing phenomenon on the internet Cloud computing a revolutionary concept that is being considered by many banks and financial industries. The interesting concept of Cloud computing involves several computers that are connected to the internet or through any other real time communication network. This concept allows for a program to run on all of the connected computers simultaneously. With Cloud computing large banks as well as many other financial industries can expect many enormous benefits. Here are some of the great benefits of Cloud computing for banks and financial industries. Banks may have various reasons for migrating to the cloud, but the main reason applications.

A pivotal stumbling block for huge investments in new technologies has always been the capital expenditure needed for advance infrastructure. With cloud computing, various financial institutions only have to budget for functional expenses and wage for the services they use. This makes it effortless and more cost effective to test new applications on the cloud versus prevailing conventional infrastructures. No cloud computing services model is customary to meet all the technology requirements for every financial organization. Banks should develop and preserve an application portfolio consisting of both cloud and on ground applications. While endorsements in legacy systems are supposed to continue, cloud based services are ideal for recent business fields. Cloud-based services are expected to provide the edge of both minimum investments in enforcing business strategies and faster turnaround time for product and service contribution

# II. IMPORTANCE OF CLOUD COMPUTING IN THE BANKING AND FINANCE

The Banking sector has gone through a rapid transformation. It has become more open to new technologies to enhance customer experience and also improve the quality of services. With the incorporation of latest technologies, banks and financial institutions are able to branch out to many customers and increase their customer base. The traditional methods of banking resulted in huge queues at the banks and with heaps of clutter bothering customers at their homes. Technology has paved way for a new age of banking and made life easier for customers as well as banks. The widespread reach of the internet all over the world has enabled customers to address their banking needs anywhere anytime. With the help of cloud computing technology, banks, and financial institutions can reap immense benefits. The cloud computing technology makes us of the internet for storing, managing, and accessing information with speed and flexibility. Cloud computing empowers sustainable IT in an eco-friendly comportment. NetAndHost is an industry name that banks and other financial institutions can trust for secure, long-standing cloud solutions.

There are many ways in which cloud computing emerges as a winner for banks as an IT solution.

- 2.1 Reasonably priced: NetAndHost provides reasonable and latest cloud solutions to banks without the need of purchasing and maintaining a heavy IT infrastructure in-house. Needless expenditure on new hardware and replacing worn out systems is eradicated as the infrastructure and data centers are managed by the cloud service provider. Banking is a highly competitive industry and an essential ingredient for increasing bank's profitability depends on the capital investment decisions it makes. Cloud's pay per use charging model significantly shrinks the operational expenditure. The outcome for banks using the cloud technology will be an increase in turnover by integrating cost-effective cloud solutions offered by NetAndHost.
- 2.2 Enhanced Security: NetAndHost cloud computing services provide a high level of security for bank's private information and systems. The data centers go through tremendous testing against attacks and are hardened with stringent authentication methods. The robust APIs are the secure pillars of NetAndHost's cloud security. We understand the criticality of bank's security

requirements and constantly keep updating our systems with latest security applications. Our 24/7 dedicated support safeguards your data and provides constant assistance to address your queries.

- 2.3 Increases Flexibility and Accessibility: To cope with the growing competition today, banks and financial institutions need to be there for its clients around the clock. The ability to pull data at any time without being physically present in the institution's premises with the use of internet gives banks the relief of reaching out to their customers anytime. The information of each bank is secured maintained with due integrity by NetAndHost.
- 2.4 Easy to deal with: Technology migration can be concerning to banks and financial institutions with many factors taken into account such as the impact on business during migration, deployment of applications and so on. NetAndHost ensures a smooth transition to the cloud ensuring almost zero downtime and impact on your business. Cloud computing is easy to deploy and integrate with your bank's systems and is sure to prove its worth over time.

Connect with NetAndHost for sustainable and economic cloud solutions that are sure to grant several rewards in your cloud journey.

#### III. CHALLENGES

The Cloud computing technologies adoption continues to gain momentum across a wide range of banking services. Aside from all the positive spin around cloud computing technologies, a reliable, trusted, standard model of cloud computing that will enable faster rates and higher levels of adoption is still a long way off, with relatively limited progress being made in that regard in the past year. When a bank moves into cloud computing, there are two prime challenges that must be addressed: Security-The confidentiality and security of commercial and personal data and mission-critical applications is preeminent. Banks cannot allow the danger of a security breach. Despite economic strain for business to cut down charges and fervent assurances from cloud computing technology providers, security remains a top barrier to cloud technology acceptance. Ultimately, for cloud computing to gain full acceptance within the banking services sector, cloud services must be harmlessly integrated into existing security platforms and processes. Regulatory and compliance-Customers are basically responsible for the security and integrity of their own data, even when it is govern by a service provider. Conventional service providers are subjected to external audits and security certifications. Cloud computing providers who ignores to undergo this evaluation are signaling that customers can only use them for the most superficial activities. Many banking mangers require that financial data for banking consumers stay in their native country. Certain compliance arrangements require that data not to be mixed with other data such as on shared servers or databases.

#### 3.1 CLOUD FOR FINANCIAL SERVICES

The financial services community is already adopting a mix of cloud service and deployment models for their business and IT needs, with many business functions within financial services being moved predominantly to the cloud. Even so, some unique industry needs may keep some core solutions on premise, or out of public cloud environments. Highlighted below are some of the areas within financial services that are seeing rapid adoption of cloud computing, and some additional detail on areas of cloud computing and the benefits they offer to financial services and other industries.

Figure 1 Cloud Service Options for Financial Services

Segment	Areas for Cloud Computing Adoption
Banking	Core Banking Cloud Service Lending and Leasing Cloud Service Revenue Management and Billing Cloud Service
Insurance	Policy Administration for Life and Annuity Cloud Service Health Insurance Cloud Service Rating and Underwriting Cloud Service Revenue Management and Billing Cloud Service Revenue Management and Billing for Healthcare Payers Cloud Service Document Management Cloud Service
Analytics	Financial Crime and Compliance Management Cloud Service Risk Management Cloud Service Performance Management Cloud Service Operational Risk Cloud Service Customer Insight Cloud Service Regulatory Reporting Cloud Service

## 3.2 Cloud for Financial Services

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Figure 2 Oracle Cloud Offerings for Financial Services

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Application Services	Global Human Resources, Talent Management Marketing,	
	Sales, Service Enterprise Resource Planning Enterprise	
	Performance Management	
Social Services	Social Marketing, Social Engagement & Monitoring Social	
	Network, Social Data & Insight	

Platform Services	Database, Database Backup Java, Developer, Mobile,
	Documents Business Intelligence, Cloud Marketplace,
	Object
Infrastructure services	Storage, Compute, Messaging Cache, Identity, Sync

#### 3.3 Oracle Financial Services Cloud

The Oracle Financial Services Cloud is a community cloud offering dedicated banks, insurance and investment companies and securities institutions in addition to other regulated institutions in the financial industry. This unique offering provides our financial services customers with assurance that their move to the cloud is in accordance with Oracle's cloud security standards. The Oracle Financial Services Cloud supports the Financial Services requirements to manage their Human Capital Management, Financial Services Management and Customer Relationship Management in the cloud. Oracle provides a complete set of offerings directly and through our partner ecosystem. Customers leverage Oracle's cloud offerings through partners of their choice.

### IV. REVIEW OF LITERATURE

- 1. Keke Gai(2014), This paper identifies main value propositions of leveraging private cloud computing and reviews current performance of implementing cloud computing technology in financial industry The main contributions of this paper are twofold. First, this paper presents the implementations of cloud computing in financial industry and summarizes key enablers of leveraging cloud computing. Second, a strategy reference model was proposed for financial organizations to form sustainable competitive strategies via cloud-based solutions. The proposed reference model takes account into both shareholder value and stakeholder value. The adaptability of the model is in planning of being demonstrated in practice at the time of writing.
- Ms. Rekha M (2017), Cloud computing is the recent buzzword which is one of the vital technologies which is growing day by day. It seems to be a promising paradigm for providing computing utilities as services. It is known as on-demand computing and one of the latest developments in IT industry. We can surely create an apt environment required by the banking sector using cloud computing which can help the banks to improve their quality of service in the changing business needs. It is equally important and necessary for a bank to prepare itself to tackle certain hurdles, prior to switching itself to cloud. Along with the difficulties faced by the bank, advantages offered by cloud are dealt with, in this document by presenting the several available cloud models
- Chitrali Agre (2015,) A Cloud is a type of parallel and distributed system consisting of a collection of interconnected and virtualized computers that are dynamically provisioned and presented as one or more unified computing resources based on service-level agreements established through negotiation between the service provider and consumers. Cloud Computing has emerged as a new era in IT. A number of banks are now adopting cloud technologies to fulfill their varied purposes. Cloud technology offers business models for delivering innovative client experiences, effective collaboration, upgraded speed to market and enhanced IT efficiency. Using cloud computing banks can create a flexible and agile banking environment that can quickly respond to new business needs. In this research paper, I mainly focus on, how cloud computing can be used in the banking industry, various business models associated with it and the problems faced by the banking industry in adopting this technology.

While banks will benefit in a similar way to other cloud users from this particular offering, especially in terms of lower total cost of ownership, enhance their operations and help them develop new offerings with flexibility and a rapid time to market. Cloud computing may soon prove indispensable as an answer to the daunting new demands for agility, transparency, and efficiency. Shrinking markets and global competition pose numerous challenges for banks - the Cloud offers the speed, flexibility and real-time information needed to meet those challenges on a cost-effective basis.

Global economic situation to more stringent regulatory controls, nimble new competitors, and shifting Customer expectations—bankers and others now face a dramatically different market reality. Banks must collaborate and technology must be part of that collaboration. We successfully integrated on promise and cloud-deployed bank sector for web service. The benefits can include not only lower costs, but increased revenue and optimized customer relationships. Cloud computing represents gamechanging shifts in how banking services organizations acquire and leverage IT resources. Cloud computing also provides a high level of redundancy and back-up at lower price than traditional managed solutions. The Cloud vendor provided infrastructure services are used to address scalability, performance, security, availability, disaster recovery, monitoring requirements of the systems.

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