



Cloud computing and banking

# The challenges and opportunities that lie ahead

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# Presenters



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## Today's goals



Provide an **overview of major cloud adoption trends** in the U.S. banking industry



**Discuss cloud adoption maturity**, its perceived key benefits, and its challenges within the U.S. banking industry



**Review a case study** where an organization successfully progressed on their cloud integration journey

# Cloud terminology



## Cloud computing

Model for enabling convenient, on-demand access to a shared pool of computing resources, such as networks, servers, storage, applications, and services.



## Public cloud

Infrastructure provisioned for open use by the general public.



## Private cloud

Infrastructure provisioned for exclusive use by a single organization.



## Hybrid cloud

Two or more distinct public and/or private infrastructures.

# Cloud terminology



## **Multi-cloud**

Using services from multiple public providers for the same general class of IT solutions or workloads.



## **Cloud native**

- 1) Software development approach that leverages or implements cloud characteristics.
- 2) Features specific to a service provider (e.g., PaaS, serverless, availability features).



## **Software as a Service (SaaS)**

Granting consumers access to applications running on a provider's cloud infrastructure.



## **Platform as a Service (PaaS)**

Granting consumers the capability to deploy consumer-created or acquired applications onto a cloud infrastructure.



## **Infrastructure as a Service (IaaS)**

Granting consumers the cloud processing, storage, and networks necessary to deploy and run operating systems and applications.

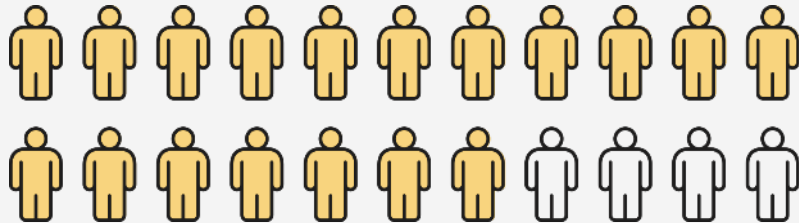
## Getting a bigger picture

# How are your peers approaching cloud computing?

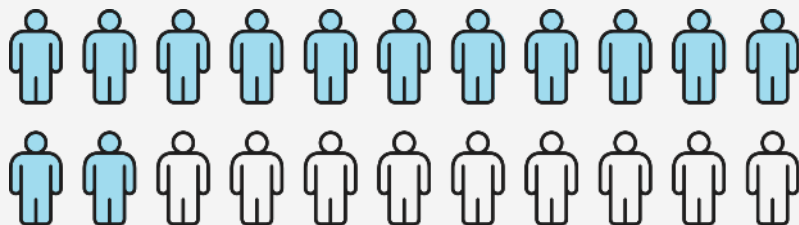
ABA and Crowe published a survey in December 2021 to better understand current and future cloud use in U.S. banks.

Sample size: **62 respondents**

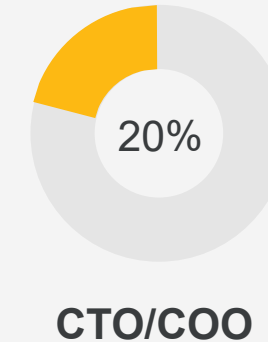
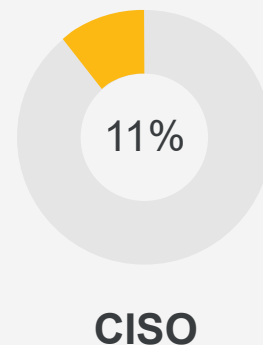
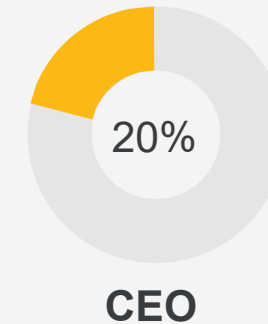
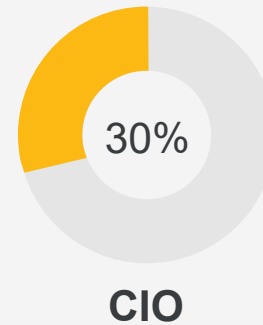
**85%** from banks with assets under \$5 billion



**60%** from the Midwest and South



## Top titles of respondents



## Here and now

# For most banks, the cloud is already a reality

90% of respondents are currently using the cloud, but their maturity level varies.

### Pre-adoption: 11%

- A few third-party applications that are cloud-based
- No formal strategy
- No major cloud applications
- Undecided about future cloud use

### Early adoption: 41%

- A few third-party applications that are cloud-based
- No cloud infrastructure
- Informal strategy
- Major project in development

### Adoption: 43%

- Multiple third-party applications that are cloud-based
- Beginning to use cloud infrastructure
- At least one major cloud project completed

### Mature: 5%

- Numerous third-party applications that are cloud-based
- Implemented architecture for at least 1-3 years
- Ongoing developments in the cloud

### Still fresh on the journey

More than half of respondents currently using the cloud are in the first stages of adoption.

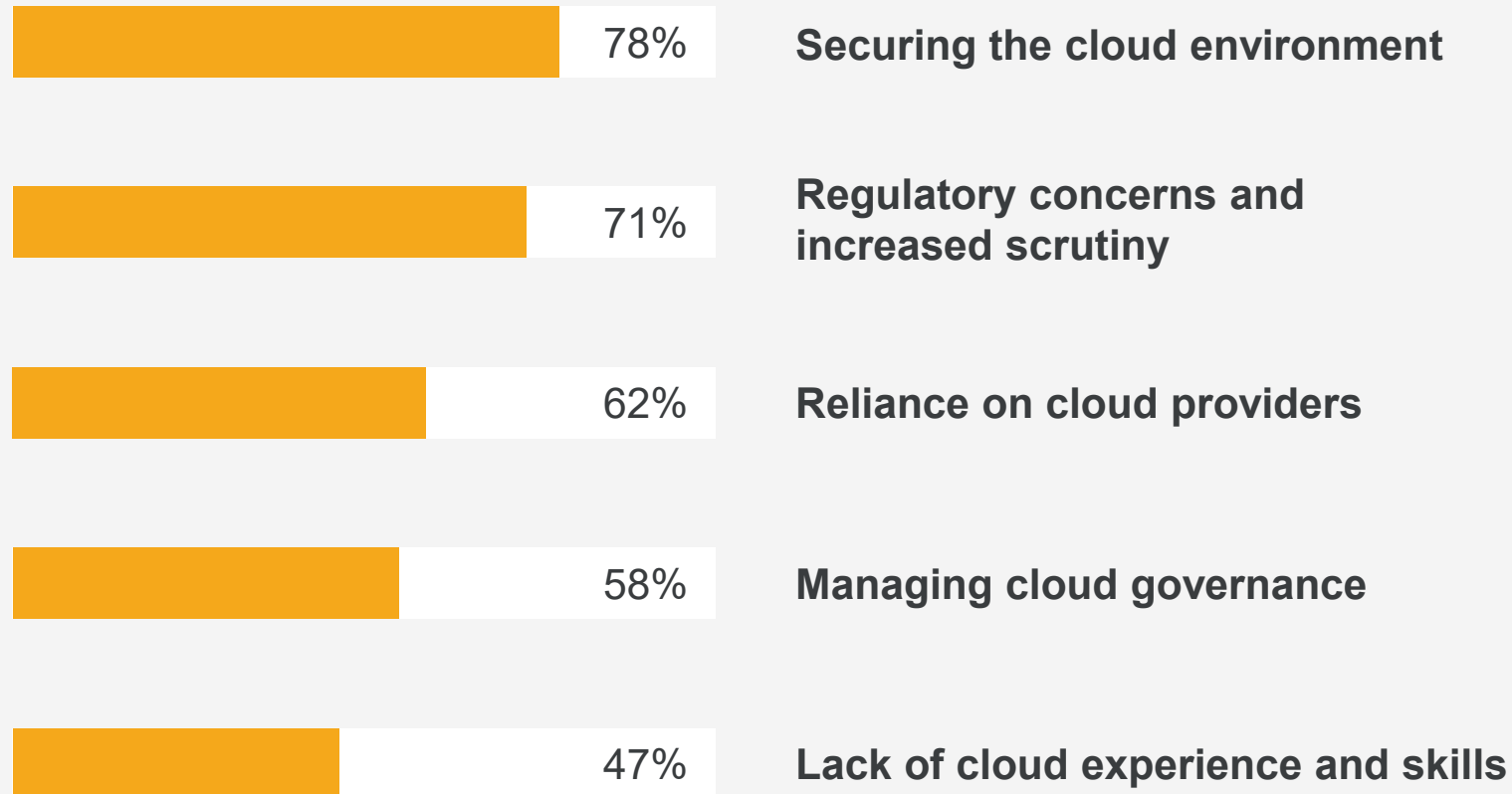
### Lack of direction?

Only about one-third of respondents have a formal cloud strategy.

## What is holding banks back?

# Challenges

The top concerns banks expressed included:



These concerns are often rooted in other underlying obstacles:



Price



Strategy



Security



Leadership

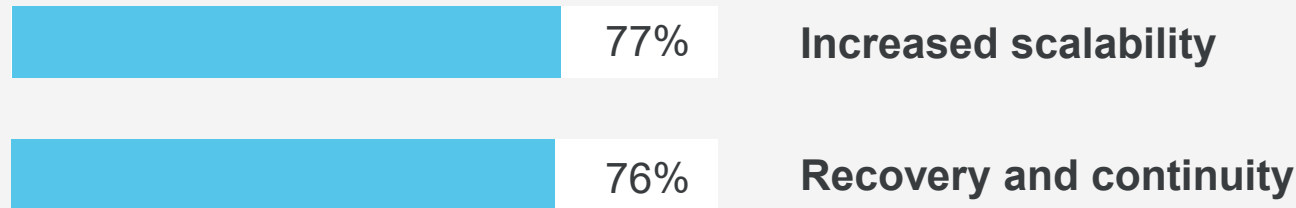


## What's in it for you and your customers?

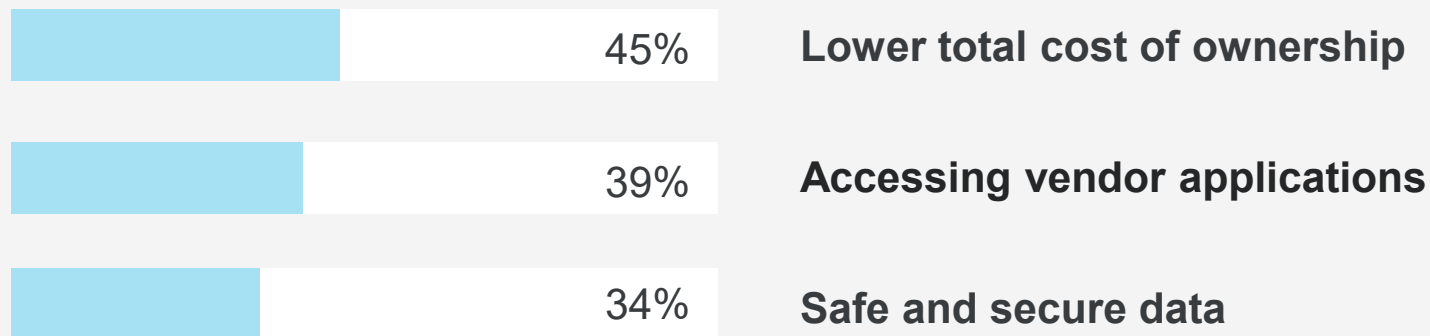
# Opportunities

Despite challenges, views on cloud computing remain generally positive.

### Top benefits cited:



### Additional benefits:



### Customers are a driving factor

91% of respondents expect to increase cloud usage. Most intend to enhance customer experience.

The most frequently mentioned apps are consumer-focused (lending, digital banking, CRM), followed by the core system.

# Cloud computing case study

## First United Bank & Trust's cloud journey



- Technology planning and evaluation
- Gather input from auditors and regulators



- Board member discussion
- Cloud proposal approval
- Migration planning and execution



- Complete security configuration and lockdown
- Update documentation and procedures

# Cloud computing case study

First United Bank & Trust was using a traditional data center model. As part of an equipment refresh, they identified an opportunity to leverage cloud-based solutions. They migrated their virtualized data center to VMware Cloud on AWS with the assistance of a third-party provider.

## Key drivers

- Data center HW refresh event
- More cost-efficient consumption model
- Reduce security risk
- Leverage agility, scalability, and stability
- Reduce migration risk, efforts, and cost
- Utilize existing resources with minimum reskilling

## Key outcomes

- Move from CAPEX model to OPEX model that can better track business growth
- Better business agility
- Enable business needs for acquisitions and divestures
- Retain resources with learning opportunities that are market relevant

## Lessons learned

- You don't know what you don't know – ask questions
- Properly vet and engage a partner for cloud migration
- Engage with regulators and auditors early for advice

Discussion period

**Questions?**



# Want to discuss what your bank's future can look like in the cloud? **Let's talk.**



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# Thank you

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