

# CAPCO

## **CLOUD TECHNOLOGY**

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BUILDING A FOUNDATION FOR RESILIENCE AND INNOVATION  
IN TIMES OF UNPRECEDENTED CHANGE



# INTRODUCTION

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Offering agility and scalability, the cloud has played a key role as firms have mobilized rapidly to counter the operational stress and wider market turmoil arising from COVID-19. The world's virtualized infrastructure, data and applications have largely shown real flexibility and resilience in the face of an unplanned, sudden and huge shift in how the world works and lives.

Most financial institutions are at some stage in the process of cloud adoption and are already benefitting from some of this flexibility, but this is a journey which now needs re-assessing. What really are these benefits in an extremely uncertain world? How do institutions make the most of them? And what might happen next?

## THE UNDERLYING BENEFITS

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Cloud gives customers the ability to scale consumption in response to changing circumstances, and to manage costs according to usage. But it is not just about hardware and processing – it also allows continuous improvement to software and services, and it brings data stores together and creates new possibilities for data analysis and insight.

Across all industries, enterprises are scaling at an unprecedented rate. A present example is Zoom, the video messaging application. Zoom saw daily users suddenly hit 200 million in the first week of April<sup>1</sup>. They met this demand, but they also made on-the-fly changes to their service as well as their capacity. Cloud allowed them not just to scale, but to understand, react to and rectify user concerns (e.g. security) without interrupting the service.

Let's investigate these points more closely:

### Fast, Flexible Change

Cloud technology provides you with the flexibility to deliver change faster and easier by adapting infrastructure as expectations, knowledge and circumstances change. In the current climate there have been some great examples of cloud technology enabling organizations to react quickly to changing circumstances:

- The Department of Work & Pensions (DWP) managed a huge increase in applications for unemployment and other benefits (Universal Credit), seeing an additional 6 million claims over the course of 7 days<sup>2</sup>; having this application processing based on Cloud has provided them the platform to scale up to manage the demand.

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1. <https://blog.zoom.us/wordpress/2020/04/01/a-message-to-our-users/>

2. <https://www.independent.co.uk/news/uk/politics/universal-credit-claims-coronavirus-lockdown-uk-therese-coffrey-dwp-a9457976.html>

## THE UNDERLYING BENEFITS (CONTINUED)

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- TransferWise - a global financial technology company working to develop better ways to move money around the world - experienced significant global business growth, with more than six million people and businesses having switched to TransferWise from more traditional providers since their launch in 2011. By moving away from a more traditional data centre model to a hybrid cloud model, TransferWise was able to scale its web and mobile application platform easily to keep pace with tenfold annual growth<sup>3</sup>. As a result, the company can expand its services more quickly as the business continues to grow. Equally, the move to cloud has allowed them to take advantage of the scalability, agility, and availability of cloud technology meaning TransferWise can better support innovation. For example, in 2018 the company launched a new borderless debit card product, which benefits from greater application availability

Financial services firms are dealing with a huge spike in transactions and the industry is heading into a very different economic environment where it will need new products, services and controls quickly and effectively. The Financial Services industry is going to need that kind of level of flexible change, implemented rapidly.

### Improved Data Insights

By providing access to real time granular data about your infrastructure and customer activity, held in one central place, cloud technology enables organizations to maximize both their performance and help them make the right decisions for customers. Customer needs and priorities continue to change, so enterprises need to be able to react quickly to match them.

- A recent example is the recently announced NHS contacting tracer app, which has been developed on VMWare's cloud. This application will allow smartphones to track every other device, that is also running the application, they have come into proximity with in the last 28 days using Bluetooth signals<sup>4</sup>. If a user comes down with coronavirus symptoms, they report this in the app. That data is then shared with a health service database and their anonymous ID matched with other phones they have come into contact with. This is a data processing challenge of huge volumes made possible through managing all that data in a cloud. While the success of the application is yet to be proven it highlights the capability and power of the data insight that cloud technology can provide.

Financial services is likely to be dealing with a very different economic environment from the recent past. We might see levels of interest rate and inflation volatility, for example, that have not been seen in decades. The way people bank and complete financial transactions will see a significant change - seeing even more customers moving to contactless transactions - and the ability to rapidly and accurately analyze the data, and react to these changes to deliver the best services for the customer will be pivotal to ensuring customer satisfaction and retention.

### Reduced Costs

Moving away from physical hardware and datacenters generally means a reduced operating cost through a smaller physical footprint and benefits of right-sized utilization. The real cost savings, however, are more than just benefits of scale.

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3. <https://aws.amazon.com/solutions/case-studies/transferwise-case-study/>

4. <https://www.telegraph.co.uk/technology/2020/05/06/nhs-app-coronavirus-track-contact-tracing/>

## THE UNDERLYING BENEFITS (CONTINUED)

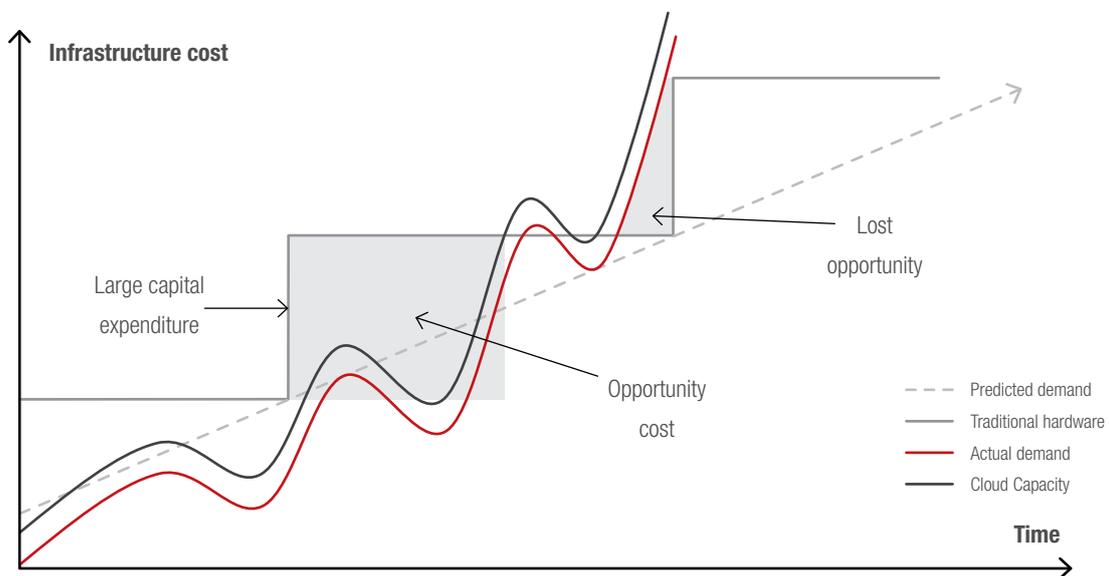
The key is having easy access to data in one consolidated location, overall transparency of that data, and the insight and flexibility to be able to act on it immediately. For example, any unplanned or unexpected underutilization of capacity can quickly be rectified by reducing or even turning off the instances until needed again, or conversely capacity can be increased to manage any spikes in demand and then reduce them again once it is over.

According to Amazon Web Services, on average cloud users use 77 percent fewer servers; as companies move to the cloud, their applications can be supported using only 23 percent of the server resources, meaning they typically provision fewer than a quarter of the servers that they would on-premise, due

to datacenter utilization levels being approximately 15 percent compared to Cloud's 65 percent<sup>5</sup>.

In a time where organizations are looking to deliver immediate cost reductions while trying to minimize the long-term impacts of recent volatility on their businesses, cloud technology can help businesses save on costs in the short term, while also creating a foundation for rapid growth and innovation in the future.

The need to manage costs is hardly new to the financial services industry, but these capabilities will be an essential part of surviving and growing.



Graph highlighting the flexibility in scaling up and down demand with cloud versus on premise hardware capacity management

5. <https://aws.amazon.com/blogs/aws/cloud-computing-server-utilization-the-environment/>

# MAKING THE MOST OF CLOUD

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This resilience has boosted many of the arguments in favor of more widespread cloud adoption. But maximizing these benefits, and doing so in a safe, resilient and secure manner, needs real care. Below are some of our top tips when adopting cloud:

- Develop a single, central 'cloud center of excellence' which creates a suite of reusable shared services that make up the foundation of each application to then build on. Taking a federated approach to development means the organization's applications can be supported by a single centralized operating model with consistent tooling driving both efficiencies and increased bargaining power when purchasing at scale.
  - Build a clear view of requirements and begin development before starting to migrate. There are two reasons for this. Firstly, developing the necessary shared service for the organization may take longer than migrating the application, meaning increased pressure to build faster, possibly sacrificing quality or encouraging tactical fixes. Secondly, if the core shared services are developed it will significantly increase the speed of subsequent migration as applications will be able to select the services from a 'shop window' as opposed to waiting for them to be developed from scratch.
  - Ensure there is a robust product management process in place. Cloud technology increases the speed at which new products can be created – and effective product management is imperative to ensuring the correct products are being built, in the correct order and in the correct way to deliver for the customer.
- Implement a sustainable operating model – this encompasses people, process, data and technology. For the technology to be successfully adopted, it must be paired with the required new ways of working. If this is not done, the organization will continue to apply old rules to new technology – which will lead to missed opportunity and potential service problems. All impacted parties must be upskilled on how cloud technology will impact their roles, understand how they can fully utilize the technology and work with it in the most effective manner.

In order to assist organizations on their cloud journey, Capco brings together the change management and technical development elements required to support you in adopting cloud successfully and designing and building a scalable and 'secure by design' platform to support cloud native consumption.

**1.** Our cloud readiness assessment and adoption framework help organizations to:

- set up the business-facing elements required to adopt and operate in the cloud
- develop and manage application roadmaps
- assess, plan and deliver migrations onto the cloud
- understand what part of your infrastructure are supporting what part of your business to drive the right decisions around workload placement and treatment strategy.

## THE UNDERLYING BENEFITS (CONTINUED)

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2. Our cloud engineering and architecture practice supports organizations with:
  - developing a safe, secure, stable and scalable platform that fully utilizes cloud technology
  - providing business-driven, cloud-native development – from dynamic sandbox testing through to building a complete bank “from scratch” in the cloud

Over the coming months we will be releasing a series of blogs covering some of the key areas, challenges and benefits around cloud technology to help organizations understand what they can do to successfully adopt it. Stay tuned for our next piece on security: How to adopt cloud securely, and how it can help you to improve your business’ security position.

# CONTACTS

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## ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

To learn more, visit our web site at [www.capco.com](http://www.capco.com), or follow us on Twitter, Facebook, YouTube, LinkedIn and Instagram.

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