

A WHITE PAPER FROM FINEXTRA, IN ASSOCIATION WITH THOUGHTWORKS

JULY 2021



DRIVING SUCCESSFUL CLOUD TRANSFORMATION

An abstract background graphic consisting of numerous overlapping, semi-transparent lines in shades of red, blue, and teal, creating a sense of motion and depth. The lines are arranged in a way that suggests a complex, interconnected network or data flow.

Finextra

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One of the key takeaways from our recent Forrester study is that enterprise modernisation efforts require a continuous commitment to change.

A significant 81% of decision-makers realise that continuous improvement is crucial, and 77% agree that investment in talent is very important. Cloud-led modernisation is integral to digital transformation success, but it needs a continuous focus on digital capabilities, the right kind of culture, and trusted partners who can bring the specialist skills and expertise on board.

The Financial Services industry has been a leader in digital investments, however, modernising services and infrastructure effectively has become more difficult than ever. On one side, unforeseen forces such as COVID-19 are driving shifts in customer engagement habits and employee needs. On the other hand, an ageing, complex technology estate limits how quickly firms can respond.

Amongst this flux, one thing is clear: cloud-based technology can enable the flexible, adaptive strategies required to succeed in these conditions — leading many to accelerate cloud transformation projects that have been in the pipeline for years.

Fortunately for those looking to begin or progress their cloud journey today, it isn't a leap into the unknown. As more organisations go through the journey and share their learnings, best practices for successful cloud initiatives in financial services are emerging.

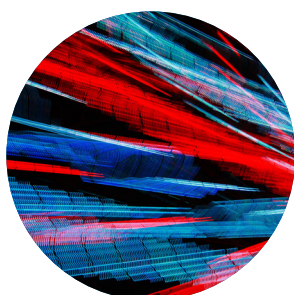
I'd like to personally thank the senior leaders from Akbank, Amazon Web Services, Bloomberg, JP Morgan Chase, Microsoft, and Standard Chartered Bank for their valuable contributions to this report.

Inside you'll find insights from leading experts on why the cloud is so critical to building resilience and adaptability in Financial Services, and what it takes to execute a holistic cloud-led modernisation initiative.

I hope you find it as useful as I have, and if you have any questions, I'm always happy to talk.

Phil Hingley

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01

INTRODUCTION

Capital market firms face the challenge to evolve at pace with technology, so that they're able to innovate and adapt to the customer's needs quickly. Cloud is seen as a key enabler to their digital future, however cloud adoption isn't just about IT infrastructure. How can executives develop a holistic approach towards cloud modernisation to ensure their investments pay off?

As 'digital' engulfs business strategies, large-scale financial services players need to develop smarter ways to adapt and accelerate technological change. They are also under constant pressure from fintechs operating on agile systems, rolling out products and services at speed. The pace of innovation at large firms often suffers due to the scale of operations, monolithic tech infrastructure, 'people alignment' and old ways of working. Challenges brought about by COVID require even greater levels of resilience and agility to navigate.

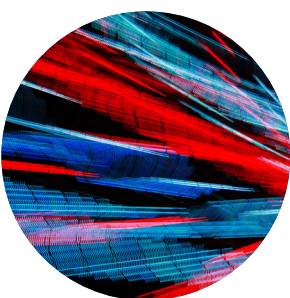
More firms than ever are using cloud-led modernisation as a catalyst for holistic enterprise transformation, and crucially, this should lead to adaptable business models that can sustain growth and weather future uncertainties in an ever-changing milieu. To maximise the value from investment, operating models need to align closely business and tech strategies.

A democratised approach needs to be implemented enterprise-wide and with that, a portfolio management approach to balance the long-term evolution of the underlying platform whilst pursuing growth with new products and features. Technology modernisation is also an enabler for lean product management practices such as low-cost rapid experimentation for exploring and exploiting innovative opportunities.



Organisational, as well as technological change is needed to ensure teams can tap into the acceleration and agility that cloud-based architecture promises. Organisations need a mind shift- moving from a top-down decision culture to an empowered agile workforce that can continuously deliver on strategic business outcomes.

This research paper from Finextra, in association with Thoughtworks, is based on interviews with senior leaders on their plans and challenges around digital programmes and cloud modernisation.



02

AN ACCELERATED PACE OF DIGITAL TRANSFORMATION IS ADDING TO CLOUD INVESTMENTS

Without a doubt, the COVID-19 pandemic has brought about unprecedented levels of transformation and change, both in accelerating digital programmes and cloud modernisation journeys, as well as creating unexpected demand for alternative digital processes. The latter comes from an internal operational point of view as well as the market demand for the continuation of services under new remote circumstances.

There is a resounding drive from banking practitioners and senior leaders to forge ahead with digital transformation programmes in organisations globally. As a result, an additional surge in cloud transformation uptake has taken root.

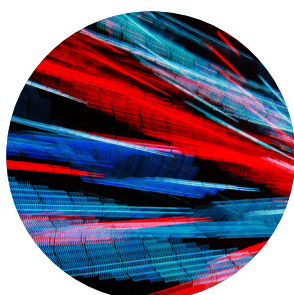
For Rahul Arya, Head of Global Technology Architecture and Next Generation Cloud, JP Morgan Chase & Company, however, the recent digital push is simply indicative of huge change “in the last five to seven years” and it is driven by using technology to refine the end-user offering.

“I’d be surprised if any CIO’s top three priorities don’t include cloud adoption. Cloud enables accelerated development, such as advancing on modernisation and target state architecture, answering questions such as, How are you managing your product?, How are you getting closer to your customer? How are you now taking your product and improving the stickiness in your customer experience?”

Certainly, “if COVID-19 hadn’t happened we wouldn’t be moving as fast as we currently are”, according to Matthew C. Meade, Head of Fixed Income Exchange and Contributed Pricing Product Management, Bloomberg LP.

Addy Dubhashi, EMEA Consulting Partner Lead, Financial Services, AWS, goes further: “The pandemic is challenging legacy applications and existing infrastructure in their ability to support an immediate shift to digital engagement with consumers and the extraordinary volumes of market volatility.”

Kahina Van Dyke, Global Head, Digital Channels and Client Data Analytics, Standard Chartered Bank puts recent digital transformation down to a combination of cultural changes that technology has enabled, spurred on by global events.

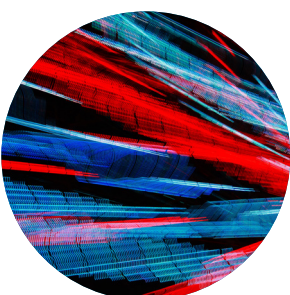


“Online business models across industries are fuelling a ‘now’ behaviour, driven by seamless fulfilment and instant gratification. APIs have eased connectivity between banks and businesses and enabled frictionless journeys. AI and analytics have automated core processes and shortened business cycles, and platforms have emerged as a means of collaboration between businesses, driven by analytics and business rules, hiding the world of technology behind it,” she states.

“In parallel, more companies are beginning to realise the importance of technology for social, economic and business impact, and investing accordingly,” she adds.

In terms of cloud transformation, Sháka Rasheed, Managing Director, GM, Capital Markets, US Financial Services, Microsoft, refers to a recent WSJ report citing two-thirds of organisations across industries were using cloud-based systems and apps. He says it was a revealing leveller in a sense- organisations that had started their cloud journey were ready to adjust fast, while those that hadn’t, found themselves very much in catch-up mode.

“As our CEO Satya Nadella said during the height of the pandemic, we have seen two years’ worth of digital transformation in two months. Capital Markets firms have stepped up their technology, to mitigate new and emerging risks around the pandemic and look for new opportunities to service customers. The imperative isn’t just to transform, but to improve agility, resiliency, and stability- to achieve faster return on investment,” Rasheed says.



03

PLANNING A SUCCESSFUL CLOUD MODERNISATION STRATEGY

What is fast becoming clear is the importance of a holistic approach towards cloud modernisation. Today's technology leaders are trying to figure out how to ensure their workforce is also modernising at pace with the overall transformation, as they are continuously evolving towards a new digital future. The underlying principles and internal practices need to change to maximise the value from cloud investments.

The most critical aspect is to understand the purpose behind such technology investments and be able to connect it with the business outcomes that impact growth. The purpose needs to be communicated at an organisation-wide level, continuously, to bring people along on the journey, and align with their professional goals, as ultimately the execution is managed by the people.

AWS' Dubhashi recounts the very stark reality of legacy systems that Financial Institutions (FIs) are faced with: renovating inherited systems. Multiple mergers and acquisitions over the years have left a "fractured" and siloed infrastructure, the net result of which is unnecessary and excessive cost as well as a prohibitively slow development time. Some firms also have little grasp on what data is where and to what extent it is repeated in the customer lifecycle. Such a scenario requires its own unique approach towards renovation.

"Alongside an infrastructure upgrade, a key initiative for CxOs has been to leverage tools, partners, and training to accelerate modernisation timelines and upskill their workforce to suit the needs of modern infrastructure management," Dubhashi says.

Standard Chartered's Van Dyke defines how the bank puts ROI at the centre of the transformation strategy:

"We put a very deliberate value lens on our priorities to make sure investments are made responsibly and with the biggest impact ROI. We seek to understand through data the path to value coming from the client satisfaction, speed and efficiency attached to the delivery of digital services, and use these insights to drive proactive decision making around prioritisation of initiatives and commercialisation plans," she says.



“[Banks need to] identify which changes impact or benefit clients the most while reducing costs the most, thereby generating ROI for the business, and coordinating the required changes across the organisation from people, processes to systems. New revenue streams can also potentially be unlocked with modernisation. For example, being able to create new services or processes that legacy systems cannot provide,” Van Dyke continues.

“There has to be a target state, but transforming to that target state shall be treated as a journey. The journey should be managed with an agile, incremental and iterative approach, including people gradually, evangelising the change internally. When a critical mass changes, the mindset change happens. And when the mindset change exceeds a critical threshold, we reach the state of “culture change”.

DR ILKER ALTINTAS, CIO AND COO, AKBANK

Microsoft’s Rasheed emphasises that a significant focus on the workforce is needed, with a “cross-team, organisation-wide, “people, process and technology” approach.

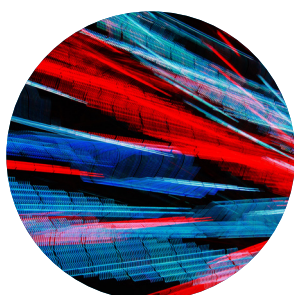
“Invest in workforce skilling and technical knowledge, which are critical factors for a successful cloud adoption effort. With increased remote work and learning unfolding across the globe during COVID-19, firms should invest in learning platforms- meeting demand for digital literacies now, and future digital technology needs. According to the World Economic Forum, more than half (54%) of all employees will require significant reskilling by 2022.”

The importance of bringing the workforce on the journey cannot be understated and has been emphasised by all leaders. It is also the most challenging aspect of transformation projects. ROI is directly linked to the cohesion of the workforce. According to Bloomberg LP’s Meade,

“There has to be buy-in at the top of the organisation, so all business decisions on the senior management levels complement that digital strategy. There also must be reskilling across the organisation to maximise the value of the employees facing the platforms,” he says.

Meade underlines the importance of reskilling taking place at the same time as the transformation so that employees do not lose their future focus and personal investment, and indeed their competitiveness or positions.

“Training programmes are vital. If senior management is embracing the strategy across different pillars of the organisation it should work out well.



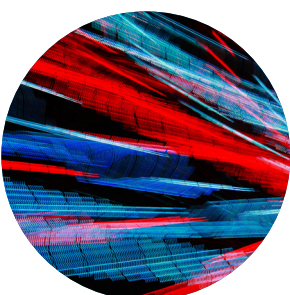
But if it is not being embraced in all parts then you come up with a problem reaching the full potential of the vision,” Meade adds.

Alluding to the ROI of cloud modernisation, JPM’s Arya believes that the benefits are two-fold: savings in terms of cost efficiencies and extra value gained as a result of recommissioned cloud-native teams, which utilise automation and resilience testing capabilities.

“If you have a bench of cloud skills you can scale up, scale down and experiment much faster- do things that are ‘next generation’, which you may not have the capability to do in-house, for example, chaos, or resiliency engineering. This frees up cycles for software engineering, but also reduces your total cost of ownership around running the infrastructure, ultimately yielding a better P&L for your products but also advancing the features and functionality of the products. You end up with a better quality product that’s more interactive with a better user experience, but also much cheaper and more cost-efficient to maintain.”

Dr Ilker Altintas, CIO and COO, Akbank, agrees, having started a bank-wide cloud transformation programme.

“Cloud-native transformation strategy should be based on the major business outcomes and the strategic targets of the enterprise. The most crucial requirement for large organisations in today’s VUCA (Volatility, Uncertainty, Complexity, Ambiguity) world is the capability of continuous adaptation,” he says.



DRIVING ORGANISATIONAL CHANGE AND CULTURAL SHIFTS

With cultural transformation a key imperative for any change programme, the question is how to transition an entire organisation, taking into account governance, operating models, and the need to embed an engineering culture. Bloomberg's Meade and Microsoft's Rasheed both stress that the need for organisational change to permeate from the top down is essential. Moreover, Rasheed points out key attributes and skillsets the board and leaders need to have.

Specifically, "Expertise in shifting models from CapEx (capital expense) to OpEx (operating expense) and understanding of the intersection of cloud with innovation. It is no longer enough to maximise your hardware investments over time. It is more compelling to deliver new experiences to your customers, ensure better security and be able to react to market forces more quickly," he says.

Feedback loops are suggested as a valuable starting point with which to achieve the requisite level of expertise, as well as consciously adding technology leadership expertise to the board.

Embellishing this outlook further, Standard Chartered's Van Dyke adds that organisations need to move away from long-standing structures to facilitate the real change that is required, both from a technological and a cultural perspective.

She says, "Driving change at scale requires an organisation that is able to flex, adapt and respond quickly to changing circumstances. This necessitates a material shift from traditional, hierarchical ways of working towards an organisation defined by ownership, empowerment, and customer centricity. We firmly believe that it is purpose-driven people and highly collaborative teams that drive change and achieve the most significant impact."

Some particular methodologies the bank has developed include "sprint" working, involving daily progress stand-ups to foster faster experimentation, and more "ruthless" prioritisation to enable execution at scale. Another key feature of a new way of working is multi-disciplinary, "mission-focused teams that work together towards a common customer outcome."

Akbank's Altintas says that driving organisational change should be in conjunction with cloud modernisation in order to succeed. Building an agile philosophy that encompasses people, trust, collaboration, transparency, and a focus on business outcomes is the key.



“One of the core principles of driving organisational change is the ability to visualise the target state. With so much ambiguity in the business environment, it would be wrong to try and visualise an ultimate solid picture of the future state. Transforming to that target state shall be perceived and treated as a journey.

“The journey should be managed with an agile, incremental, and iterative approach, where you start small and grow as you continue, include people gradually, onboard more and more, and evangelise the change internally. When a critical mass changes, the mindset change happens. And when the mindset change exceeds a critical threshold, we reach the state of culture change,” he says.

What this means when articulated from a legacy starting point, as JPM’s Arya explains, is to replace traditional methodology with a new construct that is influenced by digitally native firms in other industries.

“From a legacy point of view, it has always been ‘plan, build and run’- i.e. the design waterfall- building out what the design calls for and then operationalising it. Cloud has disrupted that entire model to focus on product, with DevOps and SRE (Site Reliability Engineering) around that, over time. That particular construct really comes from technology firms such as Google, Facebook and Netflix,” says Arya.

Understanding the new construct is an undertaking in itself, of course, requiring upskilling and reskilling to deliver against those constructs. Arya adds.

“From a cultural perspective, you have to understand the new way of operating. And from a skills and abilities perspective, you’ve got to be able to upskill to cloud and DevOps, and to tackle questions such as, How does an SRE team get organised around supporting the product manager?”

“Transparency, communication and celebration of the small wins are all crucial. You need change agents to push the initiatives. Communication has to be aligned throughout the firm; having open conversations about where you are and where you’re trying to go. As you test the transformation in one line of business, make adjustments and then roll out in other parts, enhancing the process around governance and control checks each time. That’s the roadmap.”

MATTHEW C. MEADE, HEAD OF FIXED INCOME ECP PRODUCTS AT BLOOMBERG AND AUTHOR OF WISDOM ON THE WAY TO WALL STREET



Many financial services firms have full cloud training programmes and ‘guilds’, JPM included.

“Most large enterprises with large workforces are trying to balance both changing the hearts and minds internally to the new operating model, and then bringing fresh talent into the mix to accelerate that training. I think it’s a slower process than one would like but given the scale and the importance of it, it’s a balancing act and takes time,” Arya concludes.

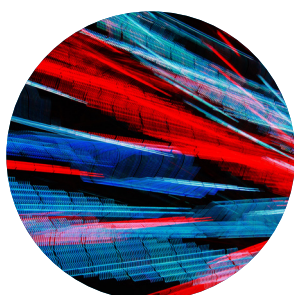
On governance, specifically, Altintas shares that the governance and planning should be lightweight with a value-based prioritisation. This, again, champions the idea of autonomous teams and empowers them to make decisions. The result is a decentralisation of critical decisions with the cooperation of practice leads, instead of gates of governance, leading to maximum contribution of the organisation with internalised decisions.

“The target state is the modernisation of mainframe to cloud-native, but currently we are focused on our MVP (Minimum Viable Product), which can act as a model for the transformation. When we have the outcomes of our initial mini transformation, we will scale it iteratively, from the one team currently working on it to 2-3 teams in the near future, then to 5-8, growing exponentially in a period of scaling. The key principle in our journey is to be determined and persistent in the targets, but flexible in the methods, with an embrace of failing forward (aka learning from failures and taking a step forward),” Altintas explains.

Ultimately, communication is key, and getting a workforce onboard such a journey of transformation is no mean feat. Meade reiterates transparency, communication and crucially, “celebrating the small wins”.

“You need change agents to push the initiatives. Communication has to be aligned throughout the firm; having those open conversations about where you are and where you’re actually trying to go. As you test the transformation in one line of business, make adjustments and then roll out in other parts, enhancing the process around governance and control checks each time. That’s the roadmap,” Meade says.

Pushing towards the vision can become pressurised and tough, Meade says, at which point feedback, communication and transparency become more important than ever. Further to this, driving home the value of different roles is crucial, outlining the roadmap to different functions and their part in the journey as well as in the future state, is key to fostering commitment to the transformation programme. The danger in not highlighting the value of individual and team contributions to achieving the end state is the fear that an uncertain future holds.



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TECHNOLOGY AS AN ENABLER OF BUSINESS OBJECTIVES

Aligning tech and business strategy is core to the future of any organisation now, yet how firms approach this will differ.

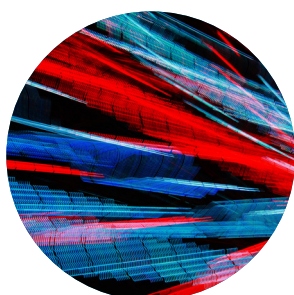
“Without a strong technology strategy, there seems no chance to build a business strategy and succeed. Banks are no longer standalone entities, they’re actors in a larger ecosystem of technology vendors, fintechs, insurtechs, regulators, customers and others. The more banks can develop capabilities to integrate and create shared service models, as well as products, the more they will be able to capitalise on innovative business models,” Altintas says.

He explains the main purpose of cloud computing, together with the other modern technology concepts such as open banking and API management, is to enable this ecosystem, so that innovative business models can arise and be implemented in an easy, fast and secure way. The accelerated digitalisation of services ties business objectives with tech strategies, and makes technology a major enabler. The borders between business and IT are fading out. Especially in banking, business is the technology, and the technology is the business. Rather than being aligned, business and technology strategies are now parts of a whole.

Indeed, a cloud modernisation programme needs to go way beyond an ‘early days’ mindset of simply migrating infrastructures or workloads to the cloud. And there is a palpable sense of understanding throughout the industry now of the importance of a methodical, and a well-rounded approach.

“Every company is now a software company- every company is creating technology solutions that run their business. Your technology strategy plays directly into your business strategy. If you make poor technology decisions or strictly focus on ‘leaving the lights on’, you are doing the same for your business.”

**SHÁKA RASHEED, MANAGING DIRECTOR, GM, CAPITAL MARKETS,
US FINANCIAL SERVICES, MICROSOFT**



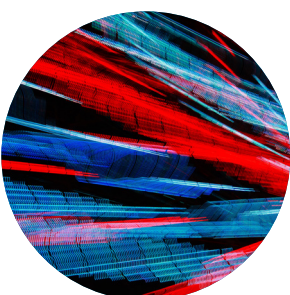
AWS' Dubhashi mentions a very key part of cultural transformation within the alignment of technology and business. Quite simply, to identify the operational targets that are no longer fit for purpose and to replace them with relevant goals that are directly linked to a business outcome.

“Businesses have steadily shifted goals from reliability and availability in remote operations to long term sustainability in 2021. These changes have required chief customer and experience officers to set innovation goals that directly link to data modernisation and data centre migration targets,” Dubhashi explains.

Microsoft's Rasheed goes further, and drives home the fact that financial services firms can no longer perceive business and technology as being mutually exclusive. Banks of all kinds simply need to become technology companies. And what this boils down to, infrastructure and architecture-wise, is a cloud native approach.

“Technology is now inextricably linked with an organisation's core functions. We've seen the shift from technology as a cost centre to being a crucial enabler of the business. Every company is now a software company- every company is creating technology solutions that run their business.

“Your technology strategy plays directly into your business strategy. If you make poor technology decisions or strictly focus on ‘leaving the lights on’, you are doing the same for your business,” he says.



06

ENGINEERING CULTURE NEEDS TO PERVADE IN ORDER TO SUCCEED

Van Dyke highlights the importance of cultivating a technology literate workforce. Financial services firms need to instil a mindset of an engineer to foster technology-driven thinking. This means having a scientific approach to problems and thinking about how technology can solve them. And most importantly, it is about the mentality of trial and error, and understanding that failure is actually progress. It is a building block of success; fear of failure needs to be eliminated.

“We seek to create an environment where people are encouraged to fail small and fast, dare to move forward and advocate change, bring along others on the journey, and promote action over perfection. Engineering culture in this context is the willingness to constantly improve things (and not waiting to be told), curiosity to understand root causes (and not fixing once off), and curiosity and desire to solve challenges (and solving them quickly),” she states.

For Arya, an engineering culture is “incredibly important”. He says the majority of financial services companies will be technology companies in the not-too-distant future and engineers are front and centre of this transformation.

“We have a great understanding of our business objectives, we have a good strategy but it’s all powered by technology. Empowering the culture, protecting it, making sure the engineers understand our strategy and can connect to it, so they’re not just evolving themselves but becoming part of that transformation is key, because they are front and centre. These are the people that are actually making things happen at the ground level,” he says.



SECURITY BEST PRACTICES UNDERPIN TRANSFORMATION INITIATIVES

Security is the bedrock of cloud transformation projects and migrations. Hence, the management thereof is something the whole workforce hinges upon and it therefore constitutes a common thread. Securing customer's data is paramount and how migration might impact the regulation of that data is a crucial consideration. It is incumbent upon the organisation to manage and secure any process or migration. It is in fact one of the reasons financial services have been perceived at times to be disinclined to change. These firms are simply under huge regulatory scrutiny- failing in this respect is prohibitively damaging and is simply not an option.

As Meade says, security of clients' data has to be seamless, it has to be well integrated to meet regulatory requirements both now and in the future, yet also in order to achieve the greatest ROI.

The shared responsibility model of cloud, which Arya speaks to, very much works to bind the whole organisation towards an outcome. As Arya says, data security is a given- there needs to be a robust strategy around it and clear governance.

"If managed well it is a non-issue, given the maturity of the modern hyper-scale platforms. Encryption and transit encryption, apparatus key management, all those tools exist but you have to have the proper design, the governance, the strategy laid out, and understand these internally for your organisation to manage both the migration of data and the security of data," Arya says.

Similarly, Rasheed stresses the importance of incorporating DevOps and monitoring in every part of any migration: "Before migrating data from the cloud, identify key components of your data estate- to ensure you understand what customer and proprietary data exist and in what sources. From here, a well-defined governance model that is revisited over time and integrated with both DevOps and monitoring, is key," he says.

Rasheed adds that regulators are on a steep learning curve themselves, and he endorses increased collaboration and communication between FIs and the authorities to chart a course forward.

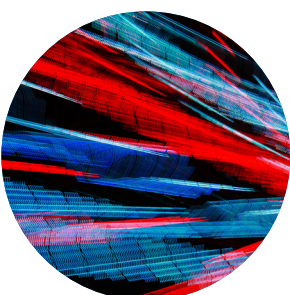


Cloud transformation does open doors to new ways of capturing, analysing and managing data, but it also provides enhanced system resilience, protection and maintenance capabilities. Security is the bedrock of any financial services firm and is not primarily what shapes new models and products. It is to a large extent taken for granted as a fundamental operational requirement and yet it consumes a great deal of an organisation's efforts and budget. Staying ahead of compliance obligations cannot be compromised but the use of cloud can ease this burden.

AWS' Dubhashi lays out the significant pressures FIs are under to maintain confidentiality of customer data and produce compliance reports:

"Reports include specific metrics about how the company controls data access, data encryption, transmission, storage, disposal, etc. At the same time, regulatory bodies are constantly updating the guidelines and best practices in response to the ongoing evolution and role cloud services play in data security," he explains.

Using cloud architecture and automation, tools and frameworks can be designed to help firms cope better with increasing and continually changing regulatory demands.



NEW CLOUD PARTNERSHIPS BRING CRUCIAL STEERING SUPPORT

When it comes to partnerships, beyond seeking out affinities as regards commercial objectives and technological expertise, it seems that capital markets firms, and all FS organisations need an inherent sense of understanding of the long-term transition and what it takes in terms of cultural change. Within this falls an enterprise-wide approach which can only come from the top down, and more than ever, the right technology partners can support this initiative.

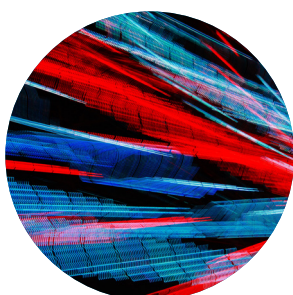
Cloud facilitates a new world of partnerships, one in which banks no longer operate as siloed organisations. And partnerships are vital to orchestrating the change. They should bring not only technical expertise but also vision, to support the transition from the top down to a future agile state in which adaptation is continual.

Says Altintas, “The transformation is a long journey, so there will be ups-and-downs in this journey. In order not to lose track, you need the right kind of technology implementation partner who should provide the strategic perspective where necessary, adding technical depth, bringing in technology practices for technical excellence. The partner has to be powerful in leading the unlearning-learning cycle and triggering the paradigm shift in the organisation.”

Arya reinforces this holistic multi-stakeholder approach. “Getting that top-down alignment is one; understanding that it’s a long-term programme where you may take several years to start yielding value but eventually in the span of a few annual cycles you’ll see the maturity - being delivered across products and applications.”

“By having our applications on the cloud, we are able to develop new business models and offer a broader portfolio of services by integrating with fintech partners, our clients and marketplaces. New features can be piloted and scaled up rapidly, which is especially important for a bank with a footprint as diverse as ours.”

KAHINA VAN DYKE, GLOBAL HEAD, DIGITAL CHANNELS AND CLIENT DATA ANALYTICS, STANDARD CHARTERED BANK



09

POWERING THE FUTURE WITH CLOUD-BASED TECHNOLOGY

The future of financial services relies on cloud-native backbones. The capabilities cloud affords in terms of security, resilience and data management, are such that most large firms could simply no longer cope without cloud technology supporting their future goals. Beyond operational efficiencies, the scope for new commercial opportunities, innovative business models, and continuous refinement of customer experiences, are the overarching benefits.

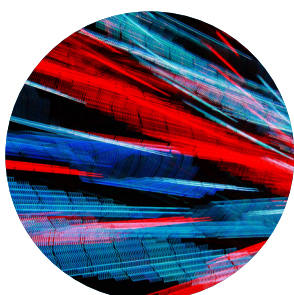
JPM's Arya says, "One of the biggest reasons to move to cloud besides the agility, cost transparency and ROI is leveraging AI and ML for broad datasets, [to provide] a better customer experience. If we can make the experience crisper, the products become stickier. AI and ML help us do that, and they're generally easier done on cloud than on-premise platforms. We strongly believe in the power of ML across all of our product sets. We're encouraging that digital customer experience to be much crisper as we go beyond mere cloud workloads."

The point is that financial services firms are facing a wide-open future of possibilities. There is now the heady realisation that automation can bring huge leaps forward for firms, and ultimately for their clientele.

"Artificial Intelligence and Machine Learning are beginning to permeate through the capital markets. From investment research to trading and portfolio management platforms, to reconciliations and surveillance systems, AI and ML algorithms are finding a home within the major investment banks, asset managers and vendors," says Rasheed.

The industry is beginning to grasp the infinite possibilities around automation. And it is now a competitive feature. Meade mentions the self-service aspect for clients as well, "automation, greater cost efficiency and a greater return on investment [bring] the entire firm together".

For Van Dyke at Standard Chartered, the new business proposition is another compelling angle because, "by having our applications on the cloud, we are able to develop new business models and offer a broader portfolio of services by integrating with fintech partners, our clients and marketplaces. New features can be piloted and scaled up rapidly, which is especially important for a bank with a footprint as diverse as ours."



Akbank's Altintas says it will not be possible to compete and retain a strong position in the burgeoning industry ecosystem without cloud programmes:

“Using solely the organisation’s own technology assets will hold it back from the competition in an environment where cloud-native competitors can utilise the assets of a rich ecosystem of tools and services. It is essential to become a platform player in the current platform business era.”



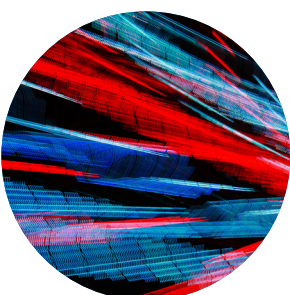
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CONCLUSION

Resilience, security, agility, flexibility, cost savings, faster speed-to-market, greater innovation and stronger scale and growth. These are just some of the benefits that cloud transformation affords to firms willing to undertake the journey. Journey is the operative word- no longer does cloud mean a lift and shift migration of certain workloads- this will simply land firms right back at square one in no time.

Cloud modernisation is a long-haul transition, but one that can bear fruit, yielding compelling advantages straight away. It requires vision and leadership, and ultimately the abandonment of traditional constructs, evolving into a cohesive, empowered workforce in which everyone becomes a key stakeholder. It is more a cultural change than anything else, as firms embrace a holistic, enterprise-wide engineering culture in their journey to becoming technology companies first.

It facilitates a new world of partnerships, one in which banks no longer operate as siloed silo organisations. And partnerships are vital to orchestrating the change. They should bring not only technical expertise but also vision, to support the transition from the top down to a future agile state in which adaptation is continual.



11 ABOUT

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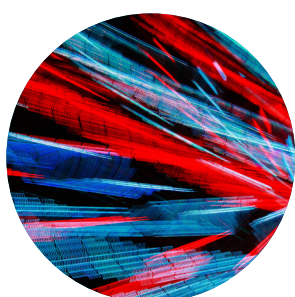
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