The cloud dilemma: choosing the best strategies for adoption
As the pandemic forces cloud strategy up the agenda for all financial services firms, the question becomes not whether to move data off premise but in what way. Public, private, multi-cloud and hybrid strategies are being scrutinised across the industry as incumbent institutions race to keep up with nimbler FinTech disruptors.

But despite increased power in the hands of the buyer, the choice available in today's public and private cloud market with different geographic, consumption and cost models ensure a successful strategy is far from straightforward.

Complexities around data, culture and business processes can all hinder the objective of making IT a business enabler. Challenges to implementation include how to dismantle data silos in a multi-cloud environment and getting different parts of a business working together.

At a digital roundtable hosted by FSTech, Computacenter, and Dell Technologies, senior leaders from the financial services industry addressed some of these key challenges, explored best practice and looked at possible solutions around planning, deploying, and scaling cloud strategies.

Senior leaders at the event began the discussion by highlighting some of the fundamental changes they had experienced since the advent of the pandemic.

A delegate working in IT and operations at a large insurance solutions business said that for him the most impactful change was the logistical challenge of staff working from home. “It was actually quite complex,” he said. “It's just logistical things and getting users, getting people to embrace what may be the new world.”

One attendee, who leads product engagement and support teams for private clients at a large UK bank, said: “I think the most positive change – and this applies across the board – is that whilst most of us in IT are used to being able to work from home, obviously a lot of our customer-facing business wasn't, but I think we ended up succeeding – we stood up an additional 30,000 work from home setups, so a huge volume of colleagues that weren't able to work from home previously, and the adoption of collaborative technology.”

A delegate leading cloud security configuration policy at a major Swiss financial institution said that he felt acceleration of the cloud was the most important outcome: “I think the digitisation of the business and the acceleration to the cloud has been probably the most positive.”

He added: “I think probably what would normally be done over maybe a couple of years has been accelerated to be done over a year.”

Another delegate from the same bank, responsible for the cyber information and security audits side of the business, highlighted some of the challenges associated with the shift to working from home. “I'm actually currently doing an audit on a very particular, restricted location, touching upon some of the cyber aspects and how they're actually handled, and their response and it's been quite difficult to do that particular audit from London,” he said. “Normally, we'd actually be in location, challenging the auditees and that's been one of the key challenges – although the bank has had the capability for, I would say 90 per cent of the staff to work from home, it does take away the whole essence of working in the city, engaging, liaising and collaborating with peers and individuals.”

A risk director looking after payments at a leading British bank said: “Cash is no longer king, everyone is using contactless and that behaviour drives a different demand into the business.

“The other bit that we certainly can't get away from being a retail bank is the impact that has on the economy. Most of us have got a slight one eye on what Rishi’s going to say but we all know it's not going to go swimmingly for the next year or two on economics.

“So just taking into account the commercial realities as people come through payment holidays and what's that going to do for people who are financially vulnerable in society and how we look after them,” he added.

A senior leader from a UK building society felt that a newfound focus on mental health was the most positive impact of the pandemic: “The shift to – an increase to a visible focus on the wellbeing of colleagues has been amazing,
just showing how much organisations are taking seriously their responsibility to the physical and mental wellbeing of their employees is amazing."

Another team member from the same building society, working as a business designer within its cloud centre of excellence, felt that the disruption of the pandemic gave the organisation some important opportunities.

"I think that the pandemic actually gave us a fantastic opportunity to prove the innovation and really test the technology where we able to launch mortgage payment holiday online within two weeks of that first pandemic hitting," she said. "So, that's something we could have never done without a pandemic. I know that sounds bizarre, but it was a really good, exciting opportunity.

"I think for me one of the biggest negatives I've noticed is a delay to decisions, and I think there is a lot to be said for corridor conversations, a lot to be said for that being able to see people's body language."

Group IT director at a major financial services firm said: "I think for me, major positives are the killing of a lot of sacred cows around what can be done digitally.

"We got everybody working from home, a lot of processes which people were using paper for, they couldn't and lo and behold, we still did the processes, and proved to myself as well, that we can run a mixed model of working from home. Our productivity's gone up, actually, it's not gone down since we did this."

A guest from a large German bank said that the business was doing a lot of work around cloud adoption.

"We're collaborating heavily with a leading cloud firm at the moment to provide various different tools and techniques and I think [the company] are actually looking to move – I wouldn't say into banking, but to provide some services in their cloud to banking clients, so it's quite an interesting situation at the moment," he said. "I think some of the positives that have come out of this is just how quickly things can actually get done when they need to get done."

But he also explained that he had witnessed people relying on COVID to delay things.

A key player at a large British bank said that the coronavirus pandemic has provided a level playing field for international businesses.

"We have people around the world in more than 60 countries, so a lot of the time I'd be on calls like this, but actually what we see as a big benefit is it's levelled the playing field for everybody," he said. "We would have core teams probably in London, in Hong Kong, in the US who were all sitting around a table together talking.

He added: "You then had other people maybe in India, in South America, maybe Mexico, and those people were almost at the periphery. They were always just outside because they've dialled in, they're in the corner on a screen."

Now everyone is in the same position with the same technology, so global team members feel more engaged, he added.

Mark Molyneux, business development chief technology officer at Dell Technologies, said that the business has seen some industries accelerate transformation during the pandemic, while others have come to a grinding halt.

"The big things that I'm seeing at the moment, a lot of companies are focusing on conservation of cash and maintaining the capital ratios," he said. "They're focusing on immediate cost saves, so not how much can I save next year or the year after, how much can I save right now in the next four weeks? But from a positive perspective, I think a lot of people have covered this already, I think the remote workforce is fantastic and everybody says the same thing."

The conversation then moved onto the main barriers to cloud adoption for financial services and institutions.

"I'll start with probably the biggest elephant in the room: the regulators," said one senior leader from a well-known Swiss bank. "Regulation; whether that's financial regulators, whether that's data privacy, but those are probably the biggest ones, I would say, at the moment."

He continued: "I think the regulators have a view of certain risks they want the financial services to manage, like operational resiliency. On prem solution, that's quite easy, but as we move towards the cloud, quite a lot of the cloud vendors
are more locking you in, it's going to be very difficult.

“So I think there has to be a little bit of understanding from the regulator that it has to be a balanced approach.”

For a group IT director at a financial services company, the skills gap was a major consideration.

“It's getting the people with the skills in cloud and also upskilling people because this is pretty radical, it's very different to the job of a third line engineer, the job of a cloud architect, there's a whole different realm of knowledge that you need,” he said.

One key leader in the financial services sector also highlighted the importance of bolstering cloud skills.

“We've found that there's a need for additional security controls, things we have to put into place internally, alongside needing to join things up to our internal existing processes.

“We've designed a system whereby when people come externally with the skillsets, 1) quite often they don't have the experience from financial services, they don't quite understand how things work, and 2) we have to spend time actually trying to get those people up to speed and understand how to operate internally,” he said. “On the flip side, the people who we have internally know how to manage a database and they've been doing that for five years that don't know how to – for want of a better word, how to hack things on the cloud that you might need to learn.”

“You need a really broad skill set, you need to know all the way from the architecture way down to engineering and security all in one, and finding people with that complete skill set takes actually a lot of internal training and upskilling of people.”

He finished by adding that without that training, it's very difficult to move forward, simply because there isn't a huge pool of people in the marketplace waiting to do this.

A senior leader from a large German bank observed: “One thing that I've noticed is ultimately when you do move to a cloud, it's a vendor and you have to follow very antiquated processes and policies to get vendors onboarded, even if it's a company like Microsoft, Google, or Amazon.

“So, you still need to go through that process of is our data safe, do they follow the regulations in various countries, all of those sorts of things, and that is a really big process, especially when you're moving financial data, personal data, whatever it is, into a vendor's infrastructure.”

A delegate that leads a product engagement and support team for private clients at a large UK bank said that it has been delivering cloud for a few years now.

“As fast as we got the right capability within that cloud team and delivered cloud with our suppliers, what we've now retrospectively discovered or discovered as we were going was actually the whole bank's processes and procedures were not cloud ready,” she said. “So, at every hurdle, whether it was satisfying cybersecurity requirements, whether it was onboarding resources, whether it was PIA, everything was based around the old ways of working.

“So, actually, it wasn't building capability within the cloud team itself, it was education and capability build across the whole group and that's actually been the thing that's held us back.”

A risk director at a leading British bank said that an important area of consideration is old world vs new world and interoperability.

“It's all well and good building a new cloud native environment with lovely APIs and microservices but you still need
to plug that back in and get the data to talk with your old infrastructure and your old legacy,” he said. “Getting those two to work is intrinsically very difficult at times.”

Martin Clarkson from Computacenter said that part of the challenge with cloud adoption has been its early success.

“It’s been said a few times, getting that one specific application…getting that in and getting that working proves to be very successful and then creates almost an intense pressure on the rest of the business to say why can’t we do that for all the other things that we need to do?” he said. “For a lot of those other things that need to get done, particularly in financial services, there is a lot of complication.”

Next delegates were asked what approaches are available when it comes to public, private or hybrid cloud.

“Originally, like a lot of people, we were looking at private cloud,” said a business designer within the cloud centre of excellence at a UK building society. “I think we were slow off the starting blocks, but it worked in our favour because we realised at that point that the public cloud offerings that were in the market had matured so much that we made the decision to go straight to public cloud and we did not build a private cloud.”

One delegate who is leading cloud security configuration at a big Swiss bank, said that there has been a definite move to public cloud.

“Like many things, our strategy is a percentage of this, a percentage of that and a percentage of the other,” he said. “So, I think from our point of view, we have a goal to get a certain percentage of our infrastructure into the public cloud by a certain date…we also realise that there will always be an element on prem at the moment. “Whether that on prem becomes part of the hybrid cloud and it’s a mixture, we’re not sure.”

Another delegate from the same bank, working on the cyber information and security audits side of the business, said that with it being a Swiss organisation, it’s always been a case of data residency and data regulators being involved when it comes to the cloud.

“So hybrid has been the key way to go for us and the majority,” he said. “But at the same time, where the business is now coming back and saying, well, guess what, I don’t believe this application actually needs to really be hosted on a hybrid, and that’s really due to cost implications as well.”

He added: “Obviously being a Swiss bank, the data needs to be held – well, the Swiss data needs to be held within the jurisdictions of Switzerland, so we have – I’m not going to divulge too much information, but I call it a super, super hybrid solution where we are actually hosting an element of that cloud solution within Switzerland to satisfy the key stakeholders.”

A guest working on the cloud team at a large European bank said: “We were initially on Azure, so we took an Azure approach, but more recently the decision had been taken to go to AWS,” he said. “So, it all depends because it appears that AWS is offering a lot better services; that’s what the board is thinking.

“So, we are now migrating everything from Azure to AWS. We’ve got strategies in place to do that but most of it – hybrid is also what we’re looking at because most of the applications are heavily being used on premise.

“So, we’re taking the approach that we need to be at a hybrid level, so that has both cloud providers, but going forward, for resilience that may be the better option, to have two different providers so if one was to go down, you’ve still got facilities on the other one.”

From the conversation so far, Graeme Sinclair from Computacenter identified multi-cloud as a common trend across financial services.

“So, in terms of the amount of workload on versus off premises, in the cloud or not – even the other day I saw some predictions from IDC all the way through to 2024 where if you look at the traditional IT versus private cloud versus public cloud, then adding together the private plus the traditional infrastructure still accounted in 2024 for over 50 per cent spend,” he said. “So, it’s going to be a world of both for some period of time which I guess, and I think as people have said, takes it back to are we looking at new or existing workloads, because I think our decision criteria’s probably different for those two.”

Delegates then spoke about changing work culture and were asked to identify what the key challenges had been in trying to build a culture around cloud infrastructure for their businesses.

A business designer for a leading British building society said she loved the idea of creating a cross functional product team.

“So, I think there is a perception across the organisation that cloud only impacts the people within that centre of excellence and it’s a tech play, when actually, the work that we do within the COE is quite straightforward, we’ve got a lot of autonomy, we can change, we can adapt, and we can be agile,” she said. “It’s when we then try to use the different business process, so I guess I just wanted to touch on how you bring the broader organisation with you on that journey and how you shake away the perception that it’s a tech play done by a small subset of people in a small area.”

A senior leader at a Swiss banking group, specialising in cloud security, said that the cloud introduces a few new risks that need to be addressed, including data location and resiliency.

“And I think that that needs to be managed at the organisational level,” he said. “I think from a control point of view, from a financial services point of view, the controls that you need to implement, whether it be on prem or in cloud, are the same, or near enough the same.

“I think what needs to happen a lot more is a discretion around the operating model and where those controls are managed and what I see is a couple of
things, the first one that the rapid change within the cloud needs to be handled throughout the business.

“In the old days, we may have legacy systems around for five, 10 years, the developers et cetera would always have that time to migrate to a new system; now, the cloud forces them to potentially make changes and CICD on a monthly basis and that impacts their testing, and how they work.”

One delegate from an American multinational financial services business said that his key cloud challenges are the skills shortage, management, and user mindset.

“Vendor lock-in also, third party assessment, making sure you can trust a third party, the implications of changing vendors and whether or not that's a competitive process and then gradual implementation,” he added.

Mark Molyneux, business development CTO at Dell Technologies, said that one of the things he has seen when clients move to the public cloud, is that they create a mode one and mode two function.

“The mode two function has this phenomenal collaboration where what was typically siloed in parts of the organisation – storage, server, computer database development, all work together, so you get this really great dev ops type mentality for application development,” he said. “But what it does is it creates workforce debt which was something I’ve been talking to clients in a similar way around to how we talk to them about technology debt.”

The attendees then talked about the key reasons for keeping some data processes on premise and were asked whether some legacy systems are worth hanging on to.

“Yes, is the simple answer,” said a delegate from a leading UK bank. “I think there's a lot of discussion around strategy and where you set your strategy, which obviously includes on prem, off prem, private, and hybrid.

“But I think the bit that we're learning very quickly is you can set a strategy and then six months later you will revise that strategy. So, particularly when we're talking about public cloud and services.

“I almost guarantee in two years time Azure will have a new bit of kit on it and another new service and everyone will go, oh, I want that one.”

Next the delegates discussed some of their key regulatory and security concerns when it comes to cloud-based services.

Said one delegate from a leading financial services firm. “I think the one thing that I think a lot of financial services are doing is actually implementing their own key management systems so that rather than relying on Azure to do all the encryption and manage the keys, a lot of financial organisations are creating their own keys and managing their own keys.”

“So, the cloud provider doesn't actually have access to the data, they are just purely running the tin and can't get access to the data.”

Another delegate said that his business has big problems working across multiple jurisdictions.

“They have internal conflicts between regulators in different countries as to whose data's stored in which country, where you can move data from one country to another, so we face a long route sometimes, which does seem to be easing a little bit in some countries but getting worse in other countries in terms of the internal process to approval.

“This sometimes longer than the external processes to get approval because people are nervous about this, it's new,” he said.

The conversation was concluded with some final words form Dell Technologies’ Mark Molyneux and Computacenter’s Martin Clarkson.

“Regulatory is a key thing, that's the message that's come out throughout the conversation,” said Mark. “There were some key points earlier on, especially around data privacy and the use of technology, geolocation of data, which I think is a huge thing for public cloud providers, where we typically don't know where that data is and have to be far more controlled about it.”

Martin from Computacenter said that there is an element of organisational change and support that is paramount.

“The conversation between the mode one and the mode two teams is interesting. We don't very often see many customers at a mature enough point that the two modes have really started to creep in,” he said. “I think the key overriding factor that is really important for me is that whatever way you look at this, whether it's on prem or off prem or public cloud or hybrid cloud or multi-cloud, there is a lot of modernisation that needs to happen within applications and thinking about the way that you deliver that data to your customers.”