



EMBRACING TECH IN FINANCIAL SERVICES EPISODE: TECHNOLOGY CHANGE IN FINANCIAL SERVICES TRANSCRIPT

**Host: Tim Broome,
Technology Advisory
Practice Lead, Financial
Services, Accenture
Australia and New
Zealand**

**Guest: John Harris, Asia
Pacific Managing Director
for Financial Services
Technology Consulting,
Accenture**

Tim: The Financial Services sector is under increasing pressure to reduce costs without losing sight of the customer, but how can

technology support that agenda? Well, join me as we explore this topic further.

Presenter: Welcome to Embracing Technology in Financial Services, a podcast brought to you by Accenture. In this 16-part series, we will hear from experts to uncover the latest in technology and trends in Financial Services. Now, here's your host, our practice lead, Tim Broome.

Tim: I'm very fortunate to be joined by John Harris today. John has got an extremely busy schedule and is the technology consulting lead for financial services across APAC. John, really glad that you've joined us here today.

John: Thanks Tim, thanks for inviting me along. It's a pleasure to be speaking to you this morning.

Tim: So, we've got a few topics we could cover today John, we could cover Game of Thrones?



John: Why not? Let's do that.

Tim: Because we've got something else?

John: Oh, work! Okay, gotcha.

Tim: Or we could talk about astrophotography.

John: Yes, that's good.

Tim: And black hole?

John: The SpaceX launch this morning?

Tim: Yeah, SpaceX launch and the first image ever of a black hole, which is pretty impressive.

John: It is very impressive.

Tim: But we're not going to talk about those today. So, today we're going to talk about, I guess, the cost pressures on the financial services industry and how technology is really helping to alleviate some of those concerns.

Looking more broadly, we've had rate rises over the last year and we're in a low-growth world. We've got banks with significant headcount reductions going on and, in many ways, they're running out of levers. So we're seeing technology as one of those core levers. What are you seeing in this space?

John: It's an interesting thing because all businesses have got two levers they can go for. Ours is no different from than anyone else's in revenue or cost. It's far easier to convince yourself to do something about costs, I think, than it is to do something about revenue and probably more obvious, right? Don't get me wrong, the banks are trying their hearts out on revenue, but cost lever is actually easiest and more obvious to see. But I do think, to your point, that technology has a great role there, both in terms of the impact on the corporations that then influences cost, and also just the baseline cost of the technology inside the organisation as well.

Tim: And so, if we're focusing on the cost take out and technology, we've got a few areas we can focus on. I think there's simplifying the technology landscape but that is extremely complex, and within that I reckon mainframes are a good opportunity. What are you seeing around mainframes?

John: I mean we're seeing a lot more discussions, both in the region around APAC, as well as in Australia around migration of those mainframe workloads to cloud. So, you get a price point reduction in doing that, mainframes are expensive to run. You raised questions around risks, and should I really put that workload on to the cloud? Because traditionally the workloads that are still on the mainframes in financial services are pretty material things like core banking applications, for example.

Tim: Yeah, absolutely.

John: So, putting that onto the cloud is actually a big question in people's minds. You do get a degree of cost reduction, agility and ability to expand. You're not constrained to the number of MIPS (Million Instructions Per Second) you purchase or the hardware that you have, you can expand horizontally that scalability, if you like.

Tim: We're saying that there's an opportunity but there's an awful lot of risk in this one and maybe not the thing you go after first.

John: Maybe, maybe not. Depends on the application, I think. The least risky application is simply running on COBOL (Common Business Oriented Language), that are occupying MIPS on a mainframe. It's probably a bit of a no-brainer because of the COBOL environment, when you think about COBOL, it's pretty easily transportable, maybe? More than some others that you would think about. Of course, there's the interfaces, and DB (Database) layers, and all that stuff to think about. If it can be done there's probably a positive business case. We're actually seeing that, probably more in Europe than we are in our region, in terms of the positive business cases or near-to positive business cases for mainframe workloads.

Tim: Yeah, and I think Japan's starting to take that on and recognises that they've got a cliff face coming over. The workforce is retiring who understands the technology. So, in some ways, you've got the risk of not doing it versus the risk of doing it and it's probably better to start something now than fall off that cliff.



John: Yeah, it's the operational dimension that's, it's quite an important one. The other thing, too, is that the financial services as an industry still buys tremendous amounts of mainframe MIPS, so they still have a lot of workload out there, so they're probably almost the last frontier in terms of that.

Tim: Yeah, yeah. Okay. Probably not the best place to target, first off. We've then got general cloud adoption, and do we think general cloud adoption is a great way to reduce cost?

John: It's a way to increase your agility, simplification... yes, to reduce costs, because you don't have to worry about the infrastructure and a range of other things. Of course, you're paying someone else to do that. It's an obvious thing for new workloads. It's less easy to think about the business cases, I think, for existing applications.

Tim: Unless you get out the data centre, you're still carrying a fair bit of cost.

John: Yeah, you are.

Tim: So, there's opportunities in that space, but I think what we really want to get around to is automation.

John: Before we leave cloud, I think it has a range of other benefits that could be benefiting the business in terms of how they run themselves, right? So, are there things you can be doing with cloud-based resources that you couldn't inside your own data centre?

Tim: Such as?

John: Analytics queries that use burst amounts of CPU (Central Processing Unit), for example. You may not be able to run that inside your own data centre but you could run it outside. In other industries, for example... airlines use that for fly mapping, weather mapping, things like that, to then determine where the aircraft can fly and thereby saving themselves tonnes and tonnes of gas. Are there analogs to that in financial services? There probably are, certainly in credit and probably a bunch of other areas that would be able to use the cloud and probably wouldn't be possible if you didn't.

Tim: I don't think it's necessarily right to say you couldn't do it, but you would have to have bought acres of infrastructure up front, and the cost just wouldn't have supported it. It's that flexibility that it really gives you that on-prem (on the premises) just doesn't really give us.

John: Back to my original comments, that whole argument is a revenue argument.

Tim: It's trying to do both together, which ultimately, we want to drive both, but yes, if we're focusing on the cost lever... so, let's go back, then, to the automation side of things. I think we've got a few different lenses that apply in a technology space. DevOps is really a straightforward one that really came out of that desire. I was talking to a guy the other day who was telling me, his reason to adopt DevOps ten years ago was because he was lazy. And, I think, in many ways it comes out of that deep technologist design not to do tedious tasks over and over again. I think we've certainly seen DevOps - and very much maturing more into an enterprise grade way of operating - although I still think large enterprises are struggling with how do we actually make this efficient at scale? We're working through that one.

Test automation. I guess you can put in with DevOps, but I think it's also grown out of its own space. Huge opportunities there. I think we've seen year-on-year reductions in the amount of human effort involved in testing, not only how much you test, who tests, where you test, all great opportunities. Then we get 'round to operations automation and that's the area, I think, we are just starting to hit a real step change. I think over the last ten years our ops teams have largely been tightening the screws - a script here, a script there. If we now look at the data available and how we're using that data - so machine data really is the core behind all of this and products like Splunk, and Sumo Logic, and similar ones like that are really enabling operations teams to be more efficient.

As an example, recent analysis I did we had a 94% reduction in triage time. Now that's reducing the amount of time that people need to spend on triage. But I think we're now starting to get to that point where the triage is relatively straightforward, it's what people do after that.



John: And I think, Tim, it's also finding the needle in the haystack. I mean, you think about the real estate that most of financial services companies runs with, it is a very complicated environment, built up over, now, probably forty years. And so, trying to find issues in that fairly complicated environment takes the time. Generally, as you and I know, when you're coding things and you can see the code bug right in front of you, it's pretty easy to fix, generally. Finding it is the issue. You know, an outage of a payment system for four hours versus one hour are two different things in this world.

Tim: Yeah, absolutely. So, if we've sped up the way to find the issue, and it's completely correct in the needle in the haystack, we've got heavily coupled systems and even when we move to the more microservices architectures, you've still got components calling components calling components, and it's not getting easy to find out where that problem is. But I think that's step one, and step two is, well if I know what that person does and they repeatedly do the same thing every time error 1234 happens, then we can automate that step as well.

John: You're quite right. It's also the human aspect to actually managing these things and picking the patterns of that. Many people have hundreds of people working in their operations areas, cross that with a very complicated environment that they're managing and a bunch of technologies that not everyone understands. The automation and the correlations that that automation can bring can actually pick these patterns and you can, from a management perspective, take actions.

Tim: You can take actions and not only resolve issues without the person, but do it significantly faster and so that gets to your outage point. I think, having gone from four hours to two hours, we should be able to go from two hours to two minutes when we know - okay, but there's a human who found out what was going on much more quickly, but then still had to go through the process of addressing the issue and had to go through the process of, how do I get approval to make this change? Now, if we know that that is automated - happens in the same way every time - the process of getting that approval should be very streamlined and then we're down to minutes not hours.

John: So, if you take ourselves to the future in five years' time, ten years' time, could AI-based, machine learning-based algorithms be predicting whether that change that you're talking about is okay to make in production or not? And even, one step further, you're automatically making those changes.

Tim: It's not five years. We're starting to do that analysis now. In the research labs in Bangalore that we've got, I saw - it was a few months ago, but - I saw where they'd actually got models that were looking at what systems were doing, and predicting the point at which you actually have to do something. So, there's that breadcrumb trail that a machine learning algorithm can figure out, okay when A, B and C happens, there's a 90% chance that D is going to happen, and D is the incident.

I do think there is... we're still working through the human side of the figuring out that we need to do that says, "Okay, how confident am I that that issue is really going to happen? So, do I enable the machine to make a call before it's happened?" I think, in many ways, that's probably just a maturity point on our side. Are we really ready to allow the machines to do that to themselves?

John: That's why I say five years. You've got some road miles to go to actually convince executives that that's actually something they should entrust. Think about the cost savings when that actually occurs and the quality levels that you can achieve and cross that with - we kind of got onto it before, but - the simplification agenda inside a large corporation is expensive. So, managing a complicated real estate is probably actually going to be with us for quite some time, and automating that and managing in a data-driven sense is actually going to be with us.

Tim: Okay, yes, fair point. I think, scratching round the edges, proving used cases on simple incidents, absolutely. But yes, restarting the whole payment system based on a prediction that may or may not happen... yeah, fair point.



John: Or an AI saying "I don't like my payment system running in that cloud stack, I want to move it to another because I know I can do that, because I've done that three times before." The AI knows that, and it knows the workload can go there, or actually is already there and just turns on more, and it just decides.

Tim: Yeah, fair point. What I wanted to return to then is, when we're talking about this - how do we automate a lot of the operations really from pulling a person largely out of the processes? Well, we then have a workforce that we need to retrain, and we're seeing retraining of workforces due to technology impacts all over the place, but I don't think we've necessarily focused too hard on those engineers whose day-to-day job is maintaining a system.

John: It's an interesting question, because for such a long time we've put ITIL processes (Information Technology Infrastructure Library) around those folks and that "There's a role, you must do this," and I think there's two elements of retraining. There's the tools, that underlie some of the things we've been talking about, but the second is actually the inquisitive mind to tinker and experiment and to automate, and to push the edge of what's - to change basically. I think that education is also necessary in that space as well, because ITIL and the way we've been driving the numbers and numerics actually teaches people to be fairly rigid and in a box. We want them to get out of that box. Okay, but that's what we've been telling them not to do for quite some time, so there's a bit of retraining there, I think.

Tim: Yeah, and certainly within the big, regulated financial services industries, ITIL and all change processes are fairly rigid. So, if we tell people not to go in and make changes, that is the absolute worst thing you can possibly do. What we're really going to be encouraging people to do is to develop tools which will make changes, and make those changes almost off their own back. So, there's some maturity there, there's probably some regulation that we'll need to better understand, or regulations which will need to be flexible to understand that this is coming.

John: Yeah, you're right. It's not ITIL, per se... it's actually probably strengthening it, to be honest, is what I'm talking about getting outside of the box, but it's to actually automate and push the edge, change jobs, change the world. Yeah.

Tim: But it's also getting down to what an individual considers themselves to be invaluable at. I think we see service reliability engineers, support engineers, they value the knowledge that they have of that complicated landscape. We don't necessarily want to reward that in the future, it's knowing how to use the tools available to make faster decisions, not you being the only person that knows how this system's built.

John: We do and we don't, right? So, once we've automated the systems, do we need the people anymore? But you do, because it might break, right? Or you might want to change it, in which case you need to have those folks around, both in terms of knowing how those applications really work underneath, but also the automation tools that are on top of it.

Tim: It's a similar challenge to the one that we talk about when we're talking about RPA (Robotic Processes Automation) and business processes and automation in that space. Okay, you've got five hundred robots running one of your reconciliation processes, you don't need people... until it all goes wrong. Then you need all of that workforce back again.

John: Yeah, that's a very interesting point. Particularly in the RPA space - where we're now getting to the business, if you like - not everything can be automated. There have been some issues with that, but there's also been some great successes with using those tools. It's almost like a new science, it's a new design mentality that you need to have to be appropriate.

Tim: I reckon there's an interesting cultural aspect to process in the use of tools like RPA. I think, here in Australia, we've consciously tried to have flexible processes, and consciously allowed people to have flexibility in the way they do their job which, after thirty years of having a process running, it operates in a thousand different ways and then when you try to put RPA on top, it's very, very hard.



Tim: Other countries have been far more successful, and Japan seems to be having an awful lot of success with RPA, and I wonder whether there is a cultural aspect to that, that we don't necessarily have ways that we operate, processes that really support RPA that easily.

John: Well, there is, but it's very interesting, you know, because it is kind of cultural, but Japan's level of automation in their businesses is actually kind of low. I was watching a video yesterday of a bank that was implementing two-minute loans on an iPad, which was revolutionary in Japan, because most of everything else is on paper, so therefore automation in that environment actually can generate quite a lot of value. Whereas here in Australia, we've been automating for quite some time. If you take mortgages. For example, they've been largely digitised by the banks for twenty years or more, but they've managed to make them complex, to your point.

So, the product is kind of complex, the processes around are complex, they've been able to put their complexity in there because it's been automated, but they haven't really thought about simplification of the product or in the process. And even if that changes the dimension of how they front the client, or the customer in this case, because that leads to extra costs in running the process and then puts it in the realm of or in a basket where it's hard to actually extract benefits by automation, or RPA, or any other sort of automation tools you put on top of it.

Tim: Yeah, that's really interesting, John. We've looked at simplifying the technology landscape and what you could do in and around mainframes and the use of platforms, what you can do with cloud and in and around getting outside of data centres. We mentioned DevOps and more broadly operations automation, so if you were in the position, you were the CIO, how would you tackle what is a complicated set of airlines all trying to land at the same time?

John: It's an interesting question, Tim. I think, you bite off a large problem like that at a bite of a time, like "How do you eat an elephant?" You don't eat it all at once, you start at one end and go to the other. If one was to eat an elephant! So, I think it's got to be about setting targets around automation, I think, and tackle some mainstreams and to make some visible progress.

So, the lines of code created through to production, absolutely automating that. And the goal is that all teams, all assets, actually end up in that environment. Give them assistance to automate, but largely they have the target to do it themselves, and through that, you will generate cost reductions because you won't be chasing the needle in the haystack, both in terms of development as well as management in production, because you'll know what would change. I would absolutely tackle test automation, because I think that's a no-brainer these days. The good test teams these days don't really test, they don't touch the keyboards. They create scripts, right? They create an environment where things are tested, and I think that's an absolute no-brainer. I think all assets should be managed in that way. It creates such large amounts of agility and it reduces lots of cost. No more rooms full of people testing, but people actually designing the test automation environment.

Then management of production - we touched on it before - that all should be completely automated with dashboards, with telemetry coming out, for management to be able to view, and then to be able to use when chasing issues. So that's kind of the three areas I'd push on.

Tim: Alright, well that's really, really good. I appreciate that. Last question, who will be sitting on the throne at the end of Season 8 of Game of Thrones?

John: That's an interesting one! Will the throne exist?

Tim: That's not answering the question.

John: It depends whether you want the happy ending or the non-happy ending. Happy ending, it'll be Jon Snow. If you want the unhappy ending, I don't know, the ice guy, what's his name?



Tim: The Night King?

John: The Night King, yeah. There's a mystery house, though. I think it's Tyrion.

Tim: Ah, okay, okay. We'll save that for a future podcast. Thanks for your time, John, really appreciated it. It's been really interesting topics we've covered today and look, thanks for your time.

John: Thanks Tim, no worries. Cheers.

Tim: Bye bye. If you have any questions about today's podcast, and want to get in touch with me, please email tim.broome@accenture.com. For information on all our podcasts, please visit accenture.com/embracingtech. See you next time.

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