Three Key Trends Driving Financial Services IT Transformation

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Introduction: Three key trends driving Financial Services IT infrastructure

The Financial Services industry is deep and wide. It encompasses insurance and accountancy firms; retail, corporate and investment banks; stock brokerages, and consumer-finance and credit card companies.

So, as you'd expect, when it comes to IT infrastructure models, there is no 'one size fits all' for Financial Services. It is becoming ever more important to have agile, flexible and secure operations as institutions move towards continual change, as customers' expectations of the experience they have with them increase and evolve.

Change is also being driven by the need to survive and compete against growing challenger start-ups like Revolut, Monzo, and N26[1], as well as traditional rivals undergoing digital transformation. Finance firms are grappling with several common IT-related issues, three of which we'll discuss in more detail in this paper, and these are:

- The need to become even more customer-centric.
- The importance of evaluating the best place for workloads – whether cloud, colocation or on-premise - and leveraging the flexibility and scalability of hybrid IT infrastructure.
- Avoiding vendor lock-in, which can become restrictive and costly.

1. https://www.cbinsights.com research/challenger-bank-strategy/

1 Trends in customer centricity

Customer-centricity is now an essential ingredient for the success and futureproofing of established Financial Services brands. But, in order to deliver a superior customer service, you need to have the right technology platforms and capabilities in place.

This doesn't always mean cloud, as finance businesses are discovering after experimenting with it for the past decade. Despite the promise of the cloud, businesses now have real-world experience of it, so they understand more about how applications perform in the cloud, and its security and regulatory drawbacks, though its advantages may include operational savings and geographic reach.

Multichannel and personalization

One of the considerations with customer centricity is that today's finance firms need to offer a seamless experience across multiple digital channels. A 2019 report[2] from US Fintech giant FIS found that in the UK market, 71% of all retail banking interactions are now digital or online, compared to just 6% in a branch, with consumers expecting easy-to-use apps to manage their money.

Customers expect a personalized user experience, like the one offered by online trading firm Etoro[3], which, as well as having a

simple interface, features 'social trading' where users can connect with each other to share investment strategies. Consumers are looking for personalized and smart services like this. Ones that give them highly relevant content and customized recommendations, not just based on financial indicators, but also on the individual's preferences and behavior - and this requires AI and analytics at the backend.

Plus, if you can identify the needs of the individual beforehand and proactively suggest the right solution, it will greatly enhance the customer experience.

Information-rich capabilities

Another issue is that corporate clients are looking for sophisticated digital services from their finance service partners. Business owners want to see customer experience improvements in their omni-channel services, and they want tools and options they can use to customize the solution, as well as more useful real-time content to manage their day-to-day banking. These expectations were highlighted in a 2019 BAI Research Study[4].

2. https://www.nsbanking.com/analysis/rise-digital-banks-fis/

3. https://www.etoro.com/

4. https://www.businesswire.com/news/home/20190411005027/en

The ability to exploit data also works in the service provider's favor. For example, relationship managers could analyze their client's businesses to work out their growth potential, profitability or loyalty, and price products and services accordingly. A recent report[5] from Oracle makes the case for this.

As well as being able to offer personalized and information-rich services, customer-centricity also means offering clients integrated, end-to-end solutions and operational excellence.

These all rely on having an automated, responsive and robust IT infrastructure. One that will enable Financial Services firms to pursue excellence in their user experience; enabling clients to access data and transact immediately, whenever and wherever; while eliminating costly service delays and downtime.

5. http://www.oracle.com/us/industries/financial-services/customer-centricity
    copr-banking-wp-3876629.pdf

2 The floating cloud trend

FS firms are shifting to a hybrid IT model that incorporates colocation as a core part of the IT infrastructure, alongside on-premise and some use of private cloud and public/multi-cloud services.

This follows the 'boomerang effect' where organizations across the board moved a lot of their non-mission-critical on-premise applications to the cloud, but came to realize they were better served by operating them in a physical location. For certain application workloads, this was more likely to be a multi-tenant data center (MTDC) facility than on-premises, because it carried both cost and security advantages while eliminating latency in line with end-user expectation.

Taking care of business

A move to colocation helps save on CAPEX, lowering 'brick and mortar' data-center infrastructure costs. Bear in mind, however, that these savings can be counteracted by previously unrequired OPEX expenditure for things like upgrades, infrastructure resource expenses and the need to continually service applications.

Other organizations move away from cloud services to MTDC facilities after finding cloud providers charging more than they expected for compute and storage. Bandwidth can also account for a big spike in their costs.

Additionally, they can discover that colocation enhances the customer experience, offering less lag and downtime compared with public cloud services.

As a result, Financial Services companies that want to transform their businesses while also

minimizing risk, CAPEX, and IT management headaches, are increasingly turning to multi-tenant providers for assistance.

Some colocation services enable businesses to offload essential maintenance tasks to data-center staff, such as server provisioning, patching and updating, and performance monitoring. This frees employees up to work on revenue-generating or customer-centric functions, driving innovation and revenue instead of spending time on routine operations.

Selecting a colocation provider with strong industry partnerships can also provide the foundation for digital transformation, building a reliable and flexible platform you can enhance with emerging technologies such as automation, application containers, AI and predictive analytics.

Keeping it secure

Security concerns are also making businesses look more closely at their infrastructure. Financial Services companies in North America saw a threefold rise in data breaches in 2018 compared with 2016, according to Bitglass[6]. Meanwhile, the UK saw a 12-fold increase in the number of cyber incidents reported by Financial Services firms from 2017 to 2018, reports the Financial Conduct Authority[7].

Among the high-profile financial institutes that disclosed data breaches in 2018 were two of the largest banks in Canada[8]: Bank of Montreal and CIBC-owned Simplii Financial; and leading US bank Capital One[9].

Naturally, cyber-attackers use every vector available to them, exploiting cloud services, insecure web applications, and launching massive DDoS attacks on web infrastructure – along with traditional attacks like phishing, SQL injection[10], local file inclusion[11] and cross-site scripting[12]. So, although cloud can bring greater agility and flexibility to financial organizations, it also open up the possibilities for cybercriminals to breach the business.

The reality is the industry is still obliged to protect its customer and business data or face heavy penalties, and this makes security one of the strongest arguments for operating on-premise or MTDC environments, which feature end-to-end security and a high level of control.

6. https://www.bitglass.com/press-releases/2018-financial-breaches triple-2016

7. https://www.computerweekly.com/news/252466038/Huge-jump-in-cyber incidents-reported-by-finance-sector

8. https://www.pandasecurity.com/mediacenter/news/canadian-banks hacked/

9. https://www.computerweekly.com/news/252467556/Former-AWS engineer-arrested-for-Capital-One-data-breach

10. https://searchsoftwarequality.techtarget.com/definition/SQL-injection

11. https://en.wikipedia.org/wiki/File_inclusion_vulnerability

12. https://searchsecurity.techtarget.com/definition/cross-site-scripting

Hybrid cloud allows for flexibility and scalability

Hybrid IT usage is on the rise across the industry sectors, as it allows IT professionals to select the right environment to meet their IT requirement, whether through cloud, on premise or colocated infrastructure. According to a recent Harvard Business Review study[13], 63% of organizations are now pursuing such a hybrid IT approach.

Furthermore, IDC reported in summer 2018[14] that the average organization utilizes a mixture of majority non-cloud infrastructure (53%), with 23% being software as a service (SaaS), 16% infrastructure as a Service (IaaS) and 9% Platform as a Service (PaaS).

Factors to take into consideration for getting the right balance in your hybrid IT model include:

- The nature of your workloads, and their required level of criticality, performance, latency, availability and redundancy.
- The level of security and compliance needed for individual applications and their datasets.
- The cost of running particular applications or optimizing them for specific platforms: e.g. on-premise, colocation private cloud, or external public cloud.

The answer to these questions will help determine where each application should reside in your hybrid IT infrastructure.

Elasticity and scalability

As mentioned earlier, Financial Services institutions need to be as agile, flexible and scalable as possible to avoid being eclipsed by fast-moving competitors. Hybrid IT embeds these qualities at their core, giving them the ability to adapt to changing business and customer demands.

It also allows for flexibility and scalability in a way that being solely colocated, on-premises or in the cloud cannot achieve. And with many finance organizations having a significant legacy IT estate, this model enables them to protect that investment, and more easily and cost-effectively extend their IT capabilities.

Incorporating some cloud or colo services into your infrastructure mix also helps financial businesses to manage their costs with greater flexibility by helping them to move from fixed to variable expenses, so they can focus on investing in business initiatives rather than tying up money in under-utilized capital equipment.

13. https://www.cio.com/article/3240979/hybrid-it-the-model-of-choice-for-a growing-set-of-business-challenges.html
14. https://www.idg.com/tools-for-marketers/2018-cloud-computing-survey/

Cloud innovation boost

Moreover, through the addition of cloud, hybrid IT adoption fosters innovation, empowering firms to reach beyond geographical, industry and organizational barriers. Hybrid/multi-cloud (the use of multiple types of cloud) is particularly fruitful for FS firms, a trend confirmed in IBM's Tailoring Hybrid Cloud for Banking report[15].

IBM Research Director, Lynn Kesterson-Townes, comments[16] that over three quarters of bankers surveyed for the study said their most successful cloud initiatives had already achieved inroads into new industries; new revenue streams, and expansion of their product or services portfolio.

In its report, IBM cites a leading Australasian bank, which identified customer experience as a priority focus area. It deployed a hybrid solution to reduce time to market and delivered an enhanced mobile experience to its customers in just 12 weeks.

Another innovator, Banco Santander, uses hybrid IT to extend its core infrastructure, with hybrid cloud being a suitable platform for its ecosystem of partners to host their services. These include successful Fintech start-ups such as PayKey, Kabbage, Tradeshift and blockchain start-up Elliptic.

15. https://www.ibm.com/downloads/cas/74KLAO6J16
16. https://www.ibm.com/blogs/think/2017/05/banks-hybrid-cloud/

3 The challenge of technology lock-in

The need to avoid technology lock-in is a challenge that continues for FS IT even as it shifts toward Hybrid IT. In fact, one study from Fujitsu Research[17] suggests that over 50% of Financial Services, Retail, Manufacturing, Transport and Public Sector businesses that use hybrid IT, develop to open source or otherwise widely used and adopted applications to guard against this reality.

The study also argues that cloud service firms will need to demonstrate they can provide customers with flexibility, so businesses can adapt their hybrid IT strategies when they need to.

One of the problems businesses have with technology lock-in is 'rip-and-replace IT' - the need to spend time and money implementing a new system when you leave a solution that is not portable or broadly interoperable. Apart from being costly, this can cause unnecessary downtime, impacting business processes and the customer experience.

However, there are several ways to avoid technology lock-in. One is to design applications that are portable, with many IT organizations turning to open source or platform-neutral virtualization technology so they're not beholden to proprietary technologies.

The best way to avoid technology lock-in is to develop a standards based, interoperable and future-proofed infrastructure, working with a partner like Panduit that recognizes the need to stay technology agnostic.
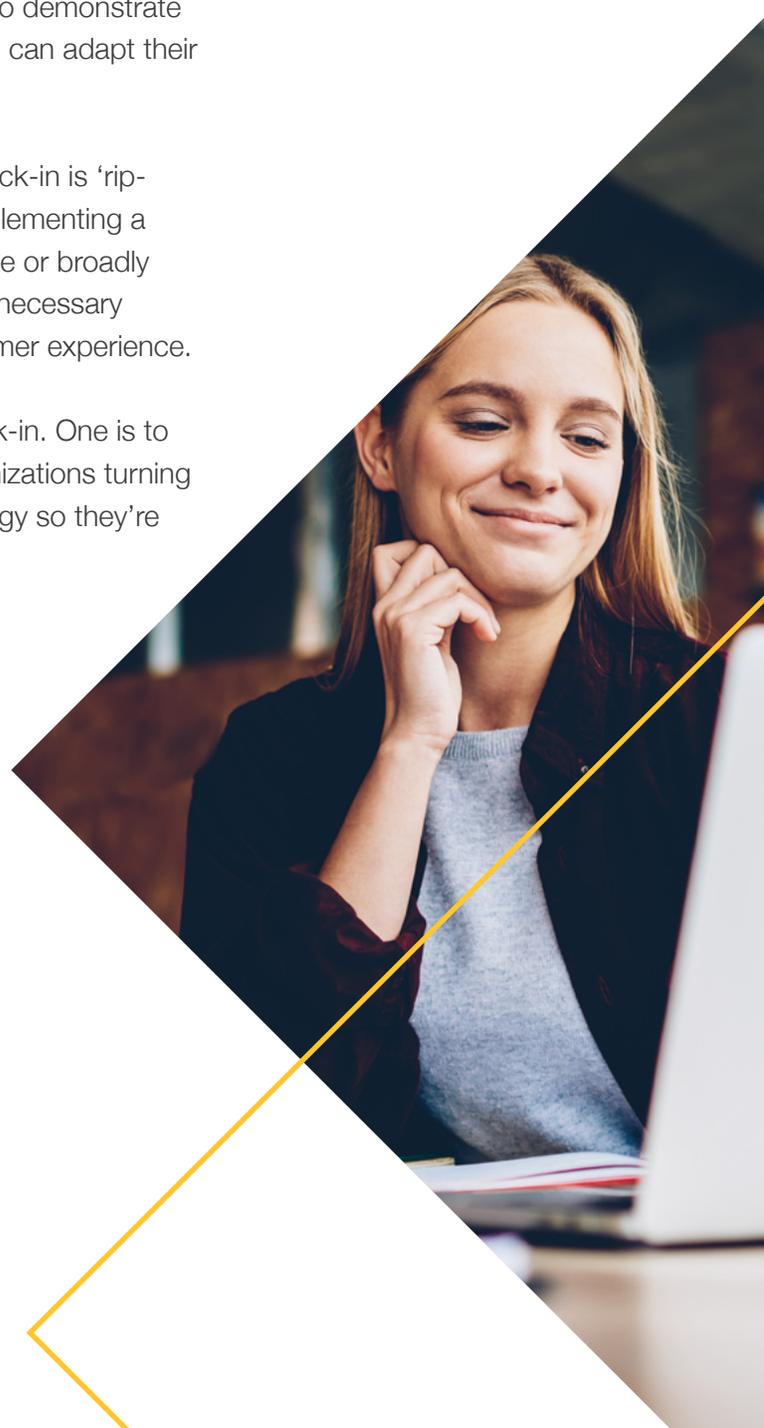
17. https://www.fujitsu.com/global/imagesgig5/PAC_HybridIT-White-Paper_Fujitsu.pdf

Conclusion: Forming the right partnership

It's possible to address these three key trends, and come out on top, by implementing an automated, responsive and robust IT infrastructure. One that supports increasing customer-centricity and information-rich capabilities. And that offers the option of running your applications in secure and reliable colocation facilities, while benefiting from the flexibility and scalability of hybrid cloud: an infrastructure that helps you avoid vendor and technology lock-in.

It's possible to address these three trends and others, and come out on top, by implementing an automated, responsive and robust IT infrastructure. One that supports increasing customer-centricity and information-rich capabilities. And that offers the option of running your applications in secure and reliable colocation facilities, while benefiting from the flexibility and scalability of hybrid IT: an infrastructure that helps you avoid vendor and technology lock-in.

Naturally, implementing such an infrastructure is easier said than done. And this is what makes partnerships with technology experts like Panduit an important part of the puzzle. We work closely with our clients, offering our expertise to help them build a flexible, scalable and secure hybrid platform that can encompass on-premise, MTDC and public cloud architectures.

And, thanks to our fully trained and vetted ecosystem of cloud providers, technology firms

and MTDC partners, we can act as the conduit to a full, future-proofed IT infrastructure. Instead of having to source numerous vendors for a series of global deployments, Panduit will bring in the right partners to meet your requirements. In addition, our robust, preconfigured solutions provide consistently high levels of service across on premise, colocation and cloud environments.

They also offer flexibility of usage, helping you improve, maintain and extend whatever technology foundation and systems you have in place. This means you don't have to resort to costly rip-and-replace IT in order to fight vendor lock-in.

So, whether your IT strategy is geared to tackle one or all of the trends covered in this paper, working with Panduit today will enable you to future-proof your tomorrow.

Panduit is highly active in standards development and industry advancements, driven to solve customer challenges and exceed expectations with best-in-class product solutions, service and support.

Contact us to learn how our innovative network infrastructure solutions can impact your facilities.

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