

# Financial

## Innovations in Technology



**Rajashekara Maiya,**  
Associate Vice President  
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# AFRICA TO THE FORE!

**Trade Processing:  
More Complexity  
And More Speed**

**Russell Hatton**  
SVP, Head of European Pre-Sales  
and Business Development,  
SmartStream

**How to comply and  
manage ongoing regulatory  
change – the need for a  
holistic regulatory change  
management tool**

**Tony Sodhi,**  
Head of Legal, Regulatory and  
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# Contents

## June 2016 Issue

### INTRODUCTION

- 4 Editor's Letter
- 5 Publisher's Letter

### TOP STORY

- 10 AFRICA TO THE FORE!

### LEAD STORY

- 24 Why data privacy is the ticking time bomb
- 30 REGULATING BLOCKCHAIN: The Israeli Block in the Chain
- 34 TRADE PROCESSING: more complexity and more speed
- 38 How to comply and manage ongoing regulatory change – the need for a holistic regulatory change management tool
- 40 Banking regulation: connectivity to compliance

### NEWS

- 50 Deals
- 51 Mandates
- 52 People Moves

### DIRECTORIES

- 53 Financial Technology Buyers' Guide

### INNOVATION CORNER

- 8 DIGITAL BANKING: security and customer experience challenges

### INTERVIEW

- 16 A Series of Interviews at Dot Finance Africa

### FEATURED STORY

- 6 The rise of DIGITAL BANKS
- 12 Reassuring a new generation of earners
- 14 Moving to Digital Banking – with API first
- 22 Wrangling Big Data for big banks, big telecoms companies, big consumer companies...
- 28 Big Data & the Buy-side: What matters most for investment management firms?
- 36 The practical details of meeting MiFID II's requirements
- 42 As the regulator's pendulum swings, asset managers must look to the future
- 44 Wolters Kluwer warns Dutch firms not to delay when it comes to XBRL
- 46 Evolving in the face of disruption – the impact of technology on financial services
- 48 E-COMMERCE PLATFORMS in Global Trade; An Explosion of Choice



- 30 **REGULATING BLOCKCHAIN: The Israeli Block in the Chain**  
*Special Counsel Roy Keidar, Yigal Arnon & Co with the assistance of Ahuva Goldstand*



- 34 **TRADE PROCESSING: more complexity and more speed**  
*Interview with Russ Hatton, SVP, Head of European Pre-Sales and Business Development, SmartStream*



- 38 **How to comply and manage ongoing regulatory change – the need for a holistic regulatory change management tool**  
*Tony Sodhi, Head of Legal, Regulatory and Compliance at GFT*

## Financial

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# Massive Certainties In An Uncertain World

This edition of Financial IT is being published in the wake of the momentous referendum in the UK which – for now – appears likely to result in Brexit, the departure of that country from the European Union (EU).

Brexit will likely continue to dominate headlines in the mainstream media of Europe and some other parts of the world for months because of the massive uncertainty that it has generated. However, much of this edition of Financial IT is dedicated to a massive certainty that is coming from Europe (and North America): the relentless rise of regulation with which financial institutions will have to comply.

Whether it is thanks mainly to the EU's latest Markets in Financial Instruments Directive (MiFID II), and its European Market Infrastructure Regulation (EMIR), or to the United States' Dodd-Frank Wall Street Reform and Consumer Protection Act and Foreign Account Tax Compliance Act (FATCA), to the OECD's Common Reporting Standard (CRS), or to other laws, rules and regulations, the trend is clear and constant: higher spending by financial institutions to provide higher amounts of information to promote higher standards of conduct.

Fortunately, this is not the only driver of greater spending on, or rather investment in, financial IT by financial institutions. Much of this edition of Financial IT highlights how a focus on digitisation can give financial institutions a competitive edge. Whether in Retail Banking or in international trade or in other aspects of the broadly defined global financial services sector, digitisation can give organisations a competitive edge. In an uncertain world, this is another certainty. For some organisations, Blockchain technology will play a central part in their quest for the competitive edge. In any event, that competitive edge can and should be reflected in what was a central theme of the previous edition of Financial IT: the customer journey.

There is an exciting, and equally certain, third driver of growth in demand for the products and solutions of the financial IT companies. That is the change in the nature of the customers who are served by financial institutions. Put simply, new customers probably have different requirements to existing customers. This may be because the new customers are mostly younger than existing customers and, as a result, have very different expectations in relation to the financial institutions that serve them. Relative to past years, there is much greater usage of social media, greater expectation of immediate responses and more inclination to adopt a new brand that has a reputation for good service.



**Andrew Hutchings,**  
Editor-In-Chief

And sometimes the new clients are different because they have never previously been clients of a financial institution. In Africa, over half of the entire population is still unbanked. However, mobile phone penetration is about 60% – and is likely to grow. It also helps that people in Africa should become richer. It is easy to find examples of national economies that are likely to expand by 7-8% annually over the next five years – or much more rapidly than the global economy. And, in particular countries, rising inwards foreign direct investment (FDI) is boosting trade and creating new opportunities for financial institutions.

Recognising this, Financial IT's team attended Dot Finance Africa, the region's premier fintech and financial IT event, which took place in Nairobi, Kenya, in May 2016. At the centre of this edition of Financial IT is a series of interviews that we conducted with exhibitors at, and sponsors of, the conference. Taken together, they provide a snapshot of the issues that really matter for financial IT companies and the institutions that they serve in the African markets.

The organisations with whom we spoke at Dot Finance Africa are very diverse in terms of their main businesses. There is a corresponding variety in the issues which are at the top of their minds. Innovation and disruption are at least as important as they are in the developed world: however, many customers have a totally different experience of the Internet to their counterparts in Europe or North America. A long period in which financial institutions were able to achieve double-digit annual growth in Africa simply by opening new branches is over. Payment methods are highly fragmented, and involve mobile phones, smartphones and kiosks, as well as a lot of physical cash. 'Omni channel' banking is an important concept. Particular countries in Africa are likely to play a key role in the evolution of Islamic finance over the coming decade. The Cloud and digitisation are central to changing services – where African institutions are, in some ways, 'leapfrogging' counterparts in the rest of the world.

Indeed, it is possible that some financial institutions in the developed world will work with financial IT companies to leverage ideas and initiatives that have been developed in Africa. A likely Brexit is just the latest example of challenging uncertainty that is made in Europe. New financial IT that is made in Africa may over coming years also provide uncertainty: however, it is very likely to generate huge opportunity as well.

# The Speed of Finance

## Welcome to our latest edition of Financial IT magazine and thank you for joining us.



**Chris Principe,**  
Publisher

I must say that I am amazed by the Speed of Finance. The changes and adaptations within the world of finance are moving at a pace never before witnessed in history. Financial IT and FinTechs are changing the world as we know it. They are dragging the banks and governments along, kicking and screaming. Radical change is unavoidable, and must be accepted – indeed, welcomed.

If I were only allowed to highlight three aspects of that radical change, the first would be Blockchain. Technology guru Marc Andreessen has described Blockchain as the most important change since the arrival of the Internet, and I think that he is absolutely correct. The ironclad security of Blockchain – through the concept of Proof of Work, the verification of blocks by all parties in the network, the sequential numbering of blocks in a chain and the maintenance of inviolable Blockchains in all the distributed ledgers of the network – has massive potential for the financial community. It will also change other areas such as insurance, medical records, contracts, voting, registries of property and e-government; the list is endless.

The second aspect of the radical change that I would highlight is the direct benefit to trade and business from cryptocurrencies. Bitcoin has generated a huge amount of comments, some of which

are informed and some of which are not. My bet is that, at some point, we will see a cryptocurrency emerge as a reserve currency for global trade. That point will, I hope, be sooner rather than later. Cryptocurrencies that are based on Blockchain bring security, transparency and – above all – trust. For this reason, they are entirely consistent with the general move towards greater regulation, greater compliance with laws and greater mitigation of risk. Governments want confidence in financial institutions and financial systems. Cryptocurrencies can boost that confidence.

Third, I would highlight the imagination and the resourcefulness of you, the people who work for disruptive FinTechs and financial IT companies. Technology is about innovation. Innovation is based on ideas. Ideas come from people. This means that it is you who are driving the radical change and determining the Speed of Finance. You are our clients, readers, advertisers, contributors and we salute you all.

At Financial IT, we are proud to serve as your voice and, therefore, as your advocate. We are pleased to help you to explain your vision to the banks, other financial institutions and FinTechs who can leverage your ideas. May the Speed of Finance lead to success for all!

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# The rise of DIGITAL BANKS



**Senthil Kumar,**  
Group Vice President and Global Head of  
Business Development at Oracle Financial  
Services Global Business Unit

## Whether an established bank or new digital challenger, success lies in the cloud...

The use of technology by retail banks to interact with their customers is nothing new. Many of today's retail banking giants were experimenting with new technologies over 30 years ago, and delivering services through pre-web systems like France's Minitel. Retail banks were quick to see the possibilities of the web, and internet banking quickly became a service every high street bank had to offer. We all know about its popularity, because almost all of us use it. Indeed, in the UK with mobile phone login at 2x of branch visit in the UK, the big six high street banks (Lloyds, Royal Bank of Scotland, HSBC, Santander, Barclays and the Co-operative) have closed more than 600 branches in the past year. According to a study by Bain & Company, mobile is the most-used banking channel and accounts for around 30% of all interactions worldwide.

While traditional retail banks feel the effects of their own forays into digital banking, many have warned that the introduction of digitally savvy brands in Financial Services will prove to be the major disruptive force in the sector. After all, just look at the impact Uber is having on taxis or Airbnb on hotels. These brands are also impacted by local regulations. In Financial Services with the regulatory oversight has expanded since the market events in 2008, as the phrase goes "if it looks and smells like a bank, it could get regulated like one". So likely digital innovators may be subjected to the same regulations and that could impact their growth prospects in global markets.

## Startup vs traditional retail banks – what's the real difference?

Digital brands are lean, fast and adaptable. They come in many guises. The 2015 FinTech 100 report identifies and describes the top 100 FinTech companies across the globe. Only 25 percent of

these are payment and transaction companies, but all embrace some aspect of the financial sector, and span insurance, transactions, lending and wealth.

These companies, including the Fintechs, have a very different DNA. Their customer engagement is frictionless; with fewer clicks and steps they deliver the services to their customer, instantly or within minutes. They have a very sharp and narrow focus and do not want to be a brand that wants to offer everything to all. This helps them to build scale and be super-efficient. Their business and customer engagements are data driven, with better insight about the customer the context of the transaction. They have the ability to use data from both within and outside their business. The entire business and technology is designed with a service orientation. They are lean and leverage the deployments on the cloud. The challenge however largely remains about the awareness and availability of service these businesses offer to customers.

But that's far too simplistic an analysis. The reality is that these two kinds of financial organizations are not in an all-out fight. They are both progressing towards the retail bank of the future. And this is a race that traditional banks might just fare well in. What matters for both types of bank is how they embrace and use appropriate technologies, and that in particular they work with cloud technologies to help build and further their business models.

## Facilitating change

With this in mind it is interesting to see the recent launch of the FCA regulatory sandbox. This is a 'safe space' in which businesses can test new products and services without first needing to meet all the usual regulatory requirements. That's great for innovators as they can put ideas into the market and find out if they really work before committing the time and finance needed for regulation.

The FCA's move should make it easier for innovative FinTech firms to challenge the well-established practices and processes of

retail banking giants. This is a positive sign that the industry is at last ready to embrace change, and it comes at a good time. The FCA has pointed out that the FinTech sector in the UK generates about £20bn a year, with a market of £3.6bn in 'disruptive' FinTech, and a recent report from HM Treasury and EY confirms the UK as the global hotspot for FinTech innovation.

Achieving this change, though, means the organizations themselves require a modern technology infrastructure. This must include cloud services as a key component facilitating the development of innovative customer-centric services at a lower cost.

## The cloud is crucial

The cloud offers a scalable, agile and flexible approach to build and deliver new business services and capabilities instead of designing and building one own IT and applications platform that is difficult to extend and keep pace with changes. In practical terms, the cloud allows workloads to be separated from operating systems, removes reliance on specific and particular IT infrastructure, and instead provides an up to date, platform agnostic, flexible compute platform.

The cloud is also a cost-efficient option. It offers startup retail banks a complete business platform which they don't have to manage. It is the cloud provider's job to ensure the platform is up to date, and the startup can operate on a pay-as-you-go basis using only the services they require, assured that these are scalable as needs change over time. With no need to invest in either technology infrastructure or a large IT team, the startup can concentrate on understanding customers and developing services for them.

That ability to focus on developing services is vital. All this efficiency needs to be geared around providing consumers with the right services. It is the services that make the difference, and where startup retail banks are able to be most disruptive.

Central to offer disruptive services is the ability develops and test new features and functions frequently. This is something the cloud does better than any other technology platform. Think of the FCA's sandbox, but replicated locally for each organization. In this environment, new ideas can be developed fast, with minimal cost, and be rigorously tested. Those that don't make the grade can be mothballed. Those that do can be released. This is a key way in which the cloud helps startups be so disruptive. More traditional on premise deployments cater to innovation but developing and testing these is a much more expensive and time consuming activity.

## Where does this leave the banking giants?

It is perhaps an irony that banking was one of the first sectors to embrace the internet, yet it has become so slow to innovate. Yet a natural tendency to be cautious about adopting new methods is understandable. Consumers using traditional banks want their investments to be safe and are likely to be wary of those that take too much risk with innovation, so banks must strike a balance between experimentation and stability.

Banks need to be assured that technologies are secure, stable and cost-efficient before embracing them, and there is a tendency to want to observe early adopters before making decisions. This measured approach is sensible, but traditional retail banks also need to recognize that a lack of willingness to change can cause

precisely the problems they want to avoid. We have all seen reports in the press of technology breakdowns and outages which prevent consumers from accessing their funds. Both the day to day woes of customers and the reputational damage are serious problems.

Yet traditional banks have some significant advantages over modern startups. These include strong security practices, a pre-existing – and often loyal – customer base, established delivery channels, proven financial expertise and deliver a compliant service to customers.

Traditional retail banks have a further, massive advantage over startups. Their vast amounts of data they hold about their customers. This is a form of capital, and it is capital they can use to better understand their customer base, and so develop new services to meet needs. A report from MIT, The rise of data capital is clear about the disruptive value of data capital. It says "Data is raw material for creating new kinds of value, especially digital services. And sometimes, these digital services—whether offered on their own or wrapped around physical products—disrupt incumbents and reorganize entire industries."

These advantages give traditional retail banks a strong base from which to innovate, and yet again cloud platforms can play a crucial role. Advanced analytics capabilities let banks dig deeper than ever before into the data they own, drawing conclusions that can help drive forward ideas for new products and services which are, as we have already seen, tested in the cloud.

## The future for all banking lies in the cloud

While at first glance traditional and digital banks might appear to be as different as chalk and cheese, they in fact share many similarities and face many comparable challenges. They all need to cater for an increasingly mobile-savvy and demanding customer base. All need to develop new services and use the vast amounts of data they either already have or will accrue to good effect. And all need to take a broadly cautious approach and, FCA regulatory sandbox or not, meet regulatory requirements.

Startup banks are finding ways to disrupt the traditional retail banking sector, and use cloud technologies in pursuit of this goal as a prime directive. Meanwhile traditional retail banks, saddled with figuring out how to integrate their traditional operations into online and mobile platforms and manage their sometimes increasingly needy legacy IT systems, are often distracted.

Yet for both sides, the imperative is to push beyond their traditional boundaries to quickly rebuild, digitize and diversify as never before. So, while digital and established retail banks are innovating from different places, both are racing toward the same finish-line and using cloud to get there. The goal for all is to create secure, convenient, digitally-enabled financial services of the future.



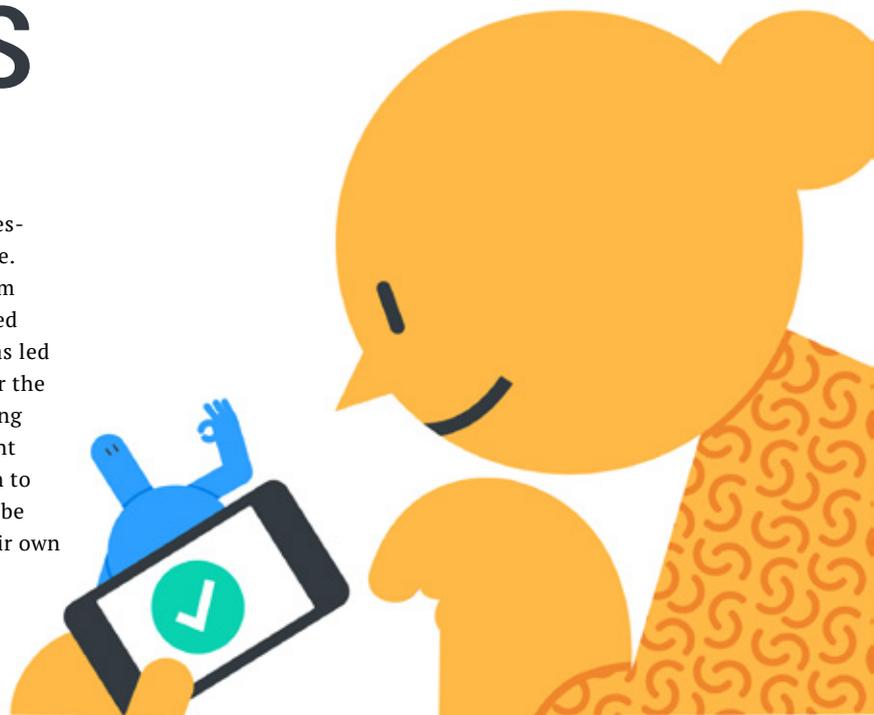
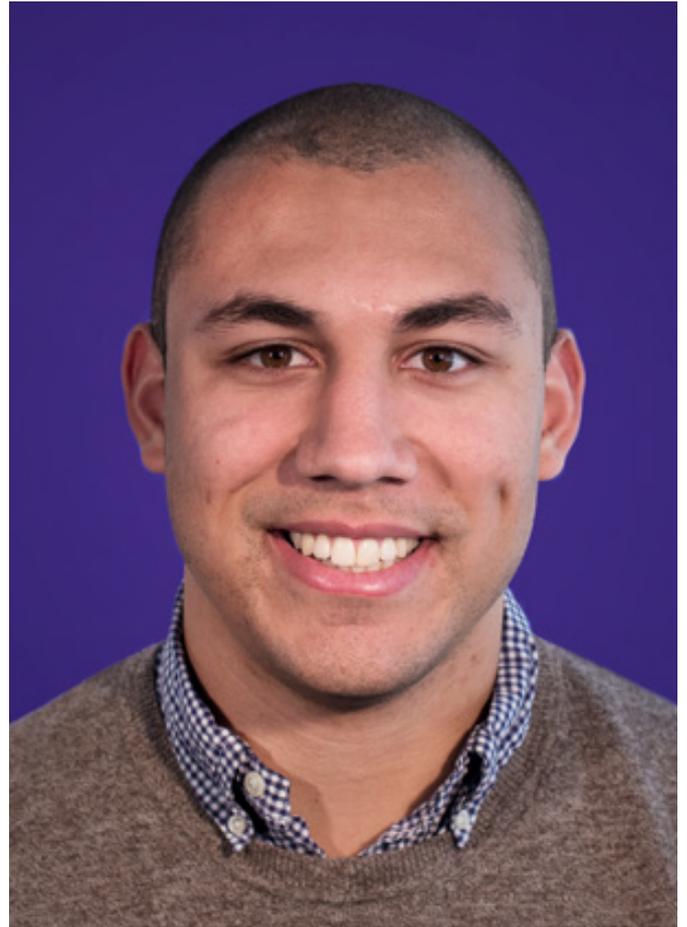

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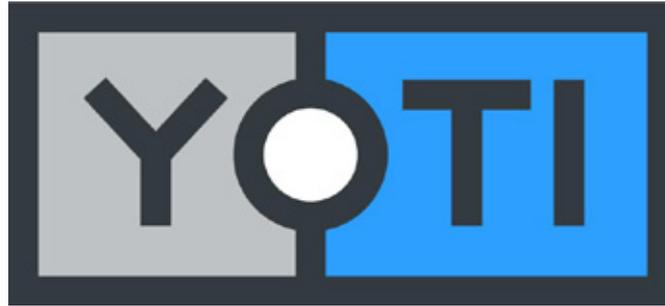
**FINANCIAL SERVICES**

Oliver Kent-Braham,  
Financial Services Lead at Yoti

# DIGITAL BANKING: security and customer experience challenges

In every business, there is a constant pressure to maintain a competitive level of customer experience and price. That pressure changes as markets and technologies mature or advance. Banks, for example, are currently under a lot of pressure from their younger audience to offer more digital services. Coupled with a lack of demand for physical branches, the pressure has led to a dramatic increase in the amount of branch closures over the last 15 years – we've lost more than 50% since 1990, according to the Campaign for Community Banking Services. The recent announcement from RBS included the news that, in addition to closing 32 branches, the opening hours of many more could be reduced. It's not alone; Lloyds and Barclays have posted their own branch closure warnings recently.





It very much looks like these brands are failing to offer the experience or the interactions their customers are looking for, especially when you compare their legacy systems to the raft of challenger banks that are growing in confidence with every announcement of further closures. With each press release, the Atoms, Moneses and Loots of the world gain further validation that they are in the right space.

If you look at other aspects of modern life – how we book taxis, how we eat, how we shop – you’ll soon notice that they are characterised by words like ‘rapid’, ‘online’ and ‘on demand’. It is these kinds of experiences that banks are competing with. Technology companies continue to disrupt just about every major industry, causing people to wonder ‘Why do I need to go into a branch to open an account?’ and ‘Why can’t I pay for things with my phone or spend £1,000 abroad without missing a beat?’

(It won’t be long before we stop calling them ‘technology companies’, as all companies become entwined with tech.)

It’s easy to go stale when you haven’t faced a challenge in a long time. Large banking incumbents have been happy to prioritise security and price over giving customers what they want for so long that they simply weren’t ready for the digital marketplace to evolve as quickly as it has. They also weren’t ready for the effect it would have on customer expectations and they certainly weren’t expecting the tenacity of the newer digital focused brands.

Like any successful business, they’ll adapt. It won’t be easy – they’ve sunk so much resource into physical branches and in person processes that extracting themselves will be painful. Additionally, digital processes are still vulnerable to fraud, so they’ll need to nail their security measures. Banks are always a target for criminals, and while it’s not clear whether online banks are inherently less secure than traditional banks, most would agree that online database systems are not yet perfectly protected.

## Security risks in online banking services

I don’t envy the architects behind digital banking services – there are multiple vulnerable points that need to be accounted for. Take account creation, for example. They are a major fraud risk which banks currently mitigate by enforcing in-branch interactions. They need to make sure the individual is real, that they own an authentic identity document and, of course, that the document matches the individual. Getting rid of in-branch interactions would mean creating new identification techniques in order to decrease the risk of fraud during account on boarding.

Aside from identification and authorisation issues at the point of account creation, banks will also have to account for authorisation needs at the point of payment or withdrawal.

How will I prove who I am, and how will I stop someone else from pretending to be me? Current digital procedures rely heavily on passwords and usernames created by customers. This creates opportunities for hackers that don’t necessarily come about as a direct result of oversight on the part of the bank – for example, if an e-commerce website is hacked and you happen to be using the same login details as your banking website, that hacker can now access your account.

It’s fascinating to watch different companies attempt to solve identity questions that have been challenging societies for centuries. I really do think that, thanks to technology, we are on the verge of cracking a few of them!

Brands looking to win the digital banking race will be asking themselves how they can keep their customers secure in a way that doesn’t negatively impact user experience. For many, the answer (or at least part of it) lies in biometrics.

With the proliferation of smartphones, and the increase in their capability, it has become pretty clear to me that banks need to embrace both biometric technology and machine learning algorithms. Whether that’s through in-house developed software or through third parties remains to be seen. If they employ biometrics, they’ll eventually be able to offer layered authentication in a customer friendly fashion. Different biometrics can be used to facilitate different interactions, allowing the scope of banking app functionality to increase.

Current banking apps are quite limited in terms of what you can achieve with them. You can log in and check account balances, but you usually can’t change your address, order a new card, or even pay new people. Using biometrics, banking customers would be able to verify large transactions by taking a selfie or change their address by speaking into the mic – a fantastic customer experience. We are seeing movement in this direction not only from new fintech challengers but also from established tech giants, like Amazon. It is only a matter of time before this technology is fully embraced by legacy banking brands. Of course, any bank that achieves this would need to account for the increased risks that are created as a result.

A note of caution: apart from preventing system breaches and providing a great experience, educating customers about the increased risk of scams will be vital. In 2015, banking scams pushed up UK financial fraud by more than 25%, according to Financial Fraud Action UK. This type of fraud typically sees fraudsters posing as bank staff in order to trick people into sending them money through online banking.

As a customer, I’ll be looking out for what my bank can do not just in terms of shifting its services to a digital environment, but what it will do to differentiate itself from challenger banks who have already achieved this.

# AFRICA TO THE FORE!

Interview with Rajashekara Maiya, Associate Vice President & Principal-Finacle Product Strategy at EdgeVerve (an Infosys Company).

**Financial IT: Please tell us about Finacle.**

**Maiya:** Finacle is a family of banking solutions which help global banks to become truly digital. Finacle provides back office automation for core banking. It provides front office automation for internet banking, mobile banking and CRM. It also helps our clients to attract more customers through the Finacle wealth management solution. It can handle Islamic banking products – which is useful in Africa given that about half of the population is muslim & Middle East.

Apart from that, we have the Finacle Analytics solution which helps banks to analyze key metrics in terms of customer, product, and branch. In addition we have a treasury management product for banks. We also have mobile wallets solutions which can be used by customers for peer-to-peer transfers, peer-to-machine transfers, etc.

Today Finacle solutions are being used in 94 countries by banks that are serving over 848 million customers – or about 16.5% of the world's adult banked population.

Infosys' Finacle has been positioned as a Leader in Gartner's Magic Quadrant for Global Retail Core Banking (GRCB). This is the ninth time in a row that Infosys has been named a leader from among 17 global vendors, who were evaluated on two key parameters: ability to execute and completeness of vision. Infosys has been placed furthest in completeness of vision within the Leaders Quadrant.

**Financial IT: Maiya, why is Infosys looking to expand into Africa?**

**Maiya:** Africa is an important market for Finacle and we have been there for almost 20 years. We have more than 25 customer banks in Africa who use Finacle products. Mobile banking adoption in Africa is much more advanced than in European countries and the USA. In terms of a transformation to online, real-time, 24/7 capabilities and customer experience, we are seeing that African banks are way ahead of their counterparts elsewhere. This happened because African banks were late and direct movers from manual

to digital systems, and this gives them a huge advantage.

The opportunities are clear from two statistics. Over 50% of the population in Africa is still unbanked. Mobile phone penetration is around 60%, and governments are keen for this to grow. Already, there are many different varieties of mobile banking services in Africa: sms banking, smart phones banking, app banking and so on.

It also helps that a number of larger African economies are growing by around 7-8% annually, or much more rapidly than the global economy. We also see that rising inwards foreign direct investment (FDI) – from China, India and some European countries – is boosting trade and is creating new opportunities for banks.

It's worth mentioning that there are a number of African-based financial IT startups that are looking to develop products and solutions for currently unbanked or underbanked people. Arguably Africa is where the most innovative micro-finance startups can be found.



## About Rajashekara V. Maiya

Rajashekara Maiya is responsible for charting Finacle's product strategy and defining its product roadmap, strategic acquisitions, alliance partnerships, and client engagements. He represents the company while interacting with external stakeholders such as analysts and the media. He is also responsible for the pre-sales function at Finacle. He has played several roles across diverse areas, including product management, solution architecture, implementation, and pre-sales over the last 17 years at Infosys.

Maiya specializes in core banking, risk management, regulations, and compliance. He has been quoted on these and other topics in reputed publications such as Forbes, The Banker, Banking Technology, The Economist, Business Line, BBC Radio, and the Economic Times. He is on the expert panel of the McKinsey Quarterly; is a member of the XBRL Abstract Modelling Task Force (AMTF) Group; and is an Associate member of the Institute of Chartered Accountants of India.

### *Financial IT: What's your future business strategy generally?*

Maiya: If you look at Airbnb, Uber, Alibaba, Facebook, WhatsApp and other new and disruptive businesses, it is clear that they have one thing in common. They operate in a totally digital world, and are very convenient and simple to use. We are suggesting banks have that kind of approach, and create a purely digital environment. Given the higher requirements for capital and profitability under the Basel III regime, they may have little alternative – especially if their traditional businesses are not performing adequately. We want to leverage the fact that we have proven technology.

### *Financial IT: Recently, Infosys signed partnership with Onegini, can you comment on that?*

Maiya: We are trying to deliver a high level of digital banking security. As far as we know, there have been system breaches in over 100 banks across 30 countries over the last two-to-three years. Every day, there

are around 8,000 attempts to hack into banks around the world. Taking this into consideration we set up a partnership with Onegini which provides biometrics authentication. The integration will allow banks to provide their customers with enhanced security to access and transact across channels. Using this solution, banks can offer customers an option to select advanced authentication methods, including fingerprint, facial, eye and voice recognition, as well as multi-factor authentication for added security as they transact on devices.

Onegini provides facial recognition and facial biometrics solutions for individual retail customers. Once you log in to your bank account you have to show your face, or it scans your IDs, and allows you to log in. The application senses if someone stands behind you and it's automatically hides the balances.

### *Financial IT: Do you have any solution that is based on Blockchain?*

Maiya: For the past six months we have been also working on Blockchain, and have

trained 50 of our associates on blockchain. What Blockchain means for banking is that you don't need any central authority such as a clearing house or exchange to keep records, because there is a distributed ledger. Blockchain-based applications can deliver increased efficiencies, transactional security and accuracy at a lower cost than the existing high-cost ledger platforms that underpin the global banking systems. Infosys is collaborating with several of the world's leading financial institutions to build Blockchain powered banking networks. These apply to areas such as payments, trade finance, invoice processing, smart contracts, digital vaults and syndicated loans, among others.

Dr. Marlene Wolfgruber,  
Product marketing manager, ABBYY

# REASSURING A NEW GENERATION OF EARNERS

Consumer behaviour is changing, challenging traditional business models of every type. The financial services industry in particular is facing the mindset of a new generation of earners. These individuals put trust and company engagement high on their agenda and organisations should look for ways to answer those demands by enhancing customer services.

This is easier said than done, as on the surface, the majority of companies in the financial services industry offer similar suites of products and services. Due to this almost commoditised status of the product, customer satisfaction is a huge differentiator for these companies. As a result, financial services organisations are increasingly turning to automated technologies to satisfy customer needs quicker – from complaint management to technical support, order processing to on-boarding. Optimised customer experience management is the key to keeping and attracting new customers.

## Navigating the choppy waters of communication channels

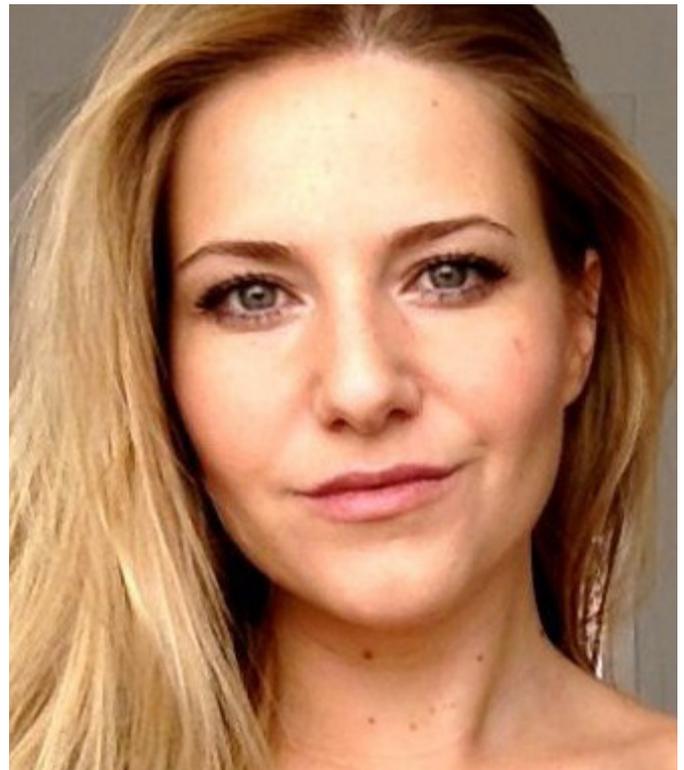
Customer experience management is a market that contains multiple software offerings, from customer relationship management (CRM) and input management tools to marketing automation. While many organisations have these applications in place, they are often operating in siloes from one another. This disconnect significantly hampers the organisation and reduces the value and insights these resources can deliver.

Without single accountability for customer experience, which can span multiple functions – from marketing, sales and customer services, how can an organisation expect to meet customer needs? The answer is by focusing on inbound communication. Ensuring that an organisation is prioritising correspondence correctly and getting it to the right person with the correct level of authority will go a long way towards building trust and a good reputation.

After all, the new generation of savers and borrowers are eager to create relationships with organisations that can respond to their requests quickly and in a personalised manner through multiple channels. Forms, contracts, requests, complaints and support questions arrive via post, email, fax, database entries, even as photos taken on mobile devices.

Increasingly customers are turning to social media, using platforms such as Facebook and Twitter to register queries and complaints. This brings the added expectation of real-time response. According to a study by Convince & Convert, a third of customers prefer contacting brands through social media. Most importantly, 40 per cent will start purchasing from another brand if it has a good reputation for great customer service.

This is also a keen 'do-it-yourself' generation. They put transparency and access first, frequently opting for self-service scenarios, where they can use mobile devices to capture and share information. Enable customers to scan or photograph documents, such as official certificates



## About Dr. Marlene Wolfgruber

Marlene Wolfgruber is product marketing manager at ABBYY responsible for ABBYY's data capture product lines in the Western European markets. In her daily work she manages the entire product management lifecycle from product and feature requirements, to go-to-market strategy. Marlene brings several years of experience in product management and marketing. Marlene has worked for a variety of technology companies in the realm of information and document management. Her areas of experience include document and data capture, e-mail management, and natural language processing. Recent positions include those as Product Manager at Retarus – a managed service provider for Fax, E-Mail, SMS and EDI – where Marlene was responsible for the product group managed e-mail services; and as product developer at a Computational Linguistics company specialising in Search and Data Mining. Marlene holds a university degree in computer linguistics, computer science and psychology and a Ph.D. on the topic of Sentiment Analysis.

required for the opening of a bank account or even cheques, and send them via a mobile application to the central processing infrastructure – or even to cloud-based processing solutions. An automated input management system gives organisations the ability to capture these documents at the right point of engagement and accelerate processes, from on-boarding to account opening and crediting payments, and ultimately allow the customer to feel more in control of their financial matters.

### Putting inbound communications first

So how does an organisation cope with all this information coming in through various channels? Inbound customer communication needs to be processed at high speed and in a way that enables productive internal workflows. At the same time, it must still meet customer expectations in responding promptly to queries and complaints in a personalised manner. Organisations should look for a single platform – a capture solution that transforms information, regardless of its input channel, into business-ready data. Information that can be handed over to backend enterprise systems and workflows.

With the explosion of data, traditional working practices are groaning under the weight of information flooding into organisations. A large volume of documents in customer care scenarios is paper based and highly structured or semi-structured, such as application forms or validation documents. However, the percentage of unstructured information, as in general correspondence, email complaints and social media posts, will generally increase up to 80 per cent.

An efficient enterprise capture solution should therefore automatically classify and process unstructured content on the same platform and as fast and efficiently as structured information. Analysing the unstructured content of customer communication gives better insight of customers' perception and can help optimise business processes.

### Digisting workflows

Whether data is captured from application forms or accompanying identification, documents need to be validated. To aid this the right solution should be converting all relevant information into digital assets. Automation of customer on-boarding processes will not only shorten response time and approval cycles but also raise data quality by eliminating manual entry work.

Every customer request has its specific requirements and triggers down-stream case management workflows. What they all have in common is the customer's expectation of a timely response. Capture and classification technologies are ideal for helping to prioritise cases, and move the needle forward on processing inbound requests and response time for customer complaints.

By capturing communication from various incoming channels on a single platform, staff will get a 360-degree view of any case and can reply with the needed priority via the right channel. This will help reduce churn and improve overall customer satisfaction and retention.

### Understanding the customer's voice

So can an organisation truly say it immediately understands all the related input it receives from customers? Answering a single e-mail request or letter is obviously not an issue – but how can companies connect all related but yet unstructured customer information that adds up over a certain course of time? Intelligent text analytics and information extraction technologies can reveal events and relationships across such unstructured information. Such analysis can enable an organisation to capture a customer's expectations, preferences and aversions.

This is especially useful in understanding a new generation of customers. Language-based insight into unstructured information and a semantic analysis will open up new opportunities. For example, discovering positive and negative drivers for business issues, gaining useful insights to reduce churn and identifying group trends.

Intelligent, language-based topic analysis can support the categorising of customer comments into business-relevant topics. Based on detected topics that frequently appear in enquiries across customers and channels, organisations can identify content to feed frequently asked questions. At the same time, the analysis of trends in complaints or support cases can help management to predict where a business might be going. It can even give valuable input for future product development.

Put simply, organisations can't afford not to invest in intelligent capture and classification technologies. Having tools in place that help to prioritise and route requests and cases to available resources will help to manage expectations and build relationships in the long term. What's more, the right communication management tools will ultimately enable productive internal workflows as well as meeting customer expectations at the same time.

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Financial   
Innovations in Technology



**Bruno Cambounet,**  
VP Banking and Financial Services at Axway

# Moving to Digital Banking – with API first

Digital business presents very real challenges and opportunities for traditional financial services organisations, but where to start? The obvious place is digital channels and an omni-channel approach; breaking traditional channel silos whilst also ensuring security and data confidentiality. Getting to know and use existing systems in the context of a new landscape also presents real opportunity but, alongside this organisations must deliver innovative services that meet customer demand – rather than pushing traditional services that are no longer relevant. In fact more than that, in digital business, customer centricity has come of age and it's no longer a nice to have. To be a true digital leader, it's all about bringing it all together and leading with innovation.

Let's look at what this means in practice.

How about a personalised loan, on the fly?

Long standing customer Anna, is visiting an area with a view to buying a house; she's looking to make her first property purchase. As she wanders down a much loved road and finds a house for sale, she asks herself, 'what would that cost me? Is that dream possible?' Anna doesn't want to visit the web and identify which product might work for her or make an appointment in a faraway branch, she wants to know now.

If her trusted bank gets the contextual information such as the local real-estate cost at that moment, they can cross reference this with all the information about Anna's income and spending habits and make a

fit-for-purpose personalised offer before she reaches the end of the road.

With this 'simple' case, what are we learning?

## Nurture all channels

The first imperative is an omni-channel strategy. Today customer interactions must happen consistently across a wide variety of channels, each with their own distinctive nuances. For traditional banks there are five major channels: mobile devices, website, call centres, physical branches and ATMs. Customer interactions can start anywhere. True, today, many start on a mobile app, such as in the above case, but customers may move to the main website or visit a branch to continue or complete the process. To ensure that customer interactions are effective, generating positive business outcomes, all channels must be available and offer integrated and consistent service levels. Channels need to be seamless – an interaction through one channel needs to be instantly visible and accessible in all others. With an API strategy banks can create the necessary points of openness, ensuring consistency across channels, whilst also fulfilling security and compliance requirements.

But omni-channel is just that – a channel, it's not a service itself, it's a beginning.

## Use what you have

For traditional Bank and Financial Services players, the foundation of a digital business

strategy must be to leverage existing systems and use them in a totally new way. Success will involve securely exposing a multitude of back office and core systems to new applications to deliver value, service and an improved experience for the end customer. From the technical perspective APIs are the best way to do this because they enable this leverage whilst also managing access to back end system and information.

## Always walk in your customers' shoes

Today, when you walk into a bank or visit the website, you're greeted with a portfolio of quite separate services: account management, loans, shareholdings, wealth management, the list goes on. The problem is, the focus is on products, not on customer needs – banks still push their offer. But digital business is provoking an important shift: it's driving the banks to start helping customers with their financial journey, to achieve their goals – rather than peddling a list of financial products they may not want, need or understand. To operate in this new way Bank and Financial Services players must understand the customer at a particular moment in their life. They must predict, or in the worst case, respond to, customer needs and propose tailored services at the right time, through the right channel. The good news is banks have all this information and can utilise APIs to interact with data analytics applications to make accurate

customer want and need predictions a reality.

## Innovation, innovation, innovation

Traditional players will achieve real innovation by proactively engaging with a wide range of external ecosystems. There's a plethora of app based services, partnerships to capitalise on, and a whole host of other relationships outside their internal operations. Working in a more open and creative way, with services you may not initially expect to be relevant, actually leads to the development of entirely new services that bring added value to the end customer. Combining data, information and content from various elementary services with their own in real time creates something totally new: a Mashup. In this new landscape traditional services need to be available, but not pushed in the same old way. APIs play a big part in digital because they enable the innovation layer; the integration between internal bank information and the broader customer ecosystem.

## Bring it all together, the Mashup.

In the above example, through embracing an API strategy and management to create the right interactions Anna's bank can answer her needs before she reaches the end of the road.

The bank interface requests authentication credentials as Anna signs in on her smartphone. Anna's also prompted to enable location services on her device. Now her bank can leverage all the knowledge they need. From their back office systems, links are established between loan services data, risk and screening apps and external housing market data for that specific area. Within seconds Anna knows how much a mortgage would cost her per month and she knows it's the best offer because her bank has considered all the variables. The bank has leveraged traditional systems. APIs have enabled the bank to integrate easily, smoothly and securely, with the wider ecosystem, in real time.

This is true innovation and it's how banks must evolve, creating a totally new service

with high value and relevance for Anna, and of course the bank. Voilà, a Mashup.

## Take the lead

In digital business traditional Banks and Financial Services players could actually have an enviable head start; leading in digital business is still there for the taking. They must leverage the wealth of data, information, customer experience and knowledge they already have, adopt an omni-channel strategy and then engender digital openness and interactions with the wide external ecosystem. This approach will create an environment and culture that delivers true innovation and digital leadership with a low cost to income ratio.



 The advertisement features a night-time photograph of the New York-New York Hotel & Casino in Las Vegas. The Eiffel Tower replica is illuminated on the left, and a large, glowing hot air balloon is on the right. The background shows the city lights and palm trees.
 

# Money 20/20

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**Financial IT**  
Innovations in Technology



Dot Finance Africa, Nairobi, Kenya, 4-5 May 2016

## A Series of Interviews at Dot Finance Africa

*Dot Finance Africa is the continent's premier conference that is devoted to financial IT and to FinTechs. As is explained in the cover story and the Editor's Letter of this edition of Financial IT, Africa will for years remain one of the most exciting growth opportunities globally - for financial services companies, as well as for the FinTechs and the financial IT groups with whom they work.*

*Some of the key factors that are driving the growth are peculiar to Africa. This is a part of the world where most people have not yet used financial services, but where they do have access to mobile telephones. Companies have developed solutions that recognise this. In doing so, they have in some ways been able to 'leapfrog' counterparts in developed countries.*

*In order to gain a better understanding of what is happening in financial IT in Africa, we spoke to representatives of nine companies that were exhibiting at, and/or sponsoring, Dot Finance Africa in 2016. To each, we asked three questions:*

- *Dot Finance Africa is about the changing landscape in financial services. What was significant for your company in deciding to attend the conference? [Key reasons for attendance]*
- *What are the issues and challenges you are finding in the industry, and how are your solutions helping your clients? [Issues, challenges and client solutions]*
- *Looking forward, what are the major trends that we can expect to see in financial services? [Major financial services trends]*

*We look forward to Dot Finance Africa 2017, which will take place in Kigali, Rwanda on May 10-11.*

### AurionPro



**Krishnadas Nair**  
VP Sales (Middle East Africa)  
AurionPro

#### **Key reasons for attendance:**

AurionPro is a leading provider globally of technology solutions to banks, insurers and other financial institutions. We have almost 17 years of experience, in a variety of areas such as Transaction Banking, Commercial Lending, Customer Communications and Bank Branch Automation and Digitization. We see Dot Finance Africa as an opportunity to connect with African banks who are using technology to transform their organizations and offerings.

#### **Issues, challenges and client solutions:**

Banking is evolving quickly in Africa. Some organizations are struggling to keep up with the pace of change. Africa's financial services sector needs to be integrated seamlessly with its counterparts elsewhere. Further, some institutions have suffered from fraud as a result of inadequate systems. Our secured and tested applications for Internet Banking, Transaction banking and Lending should provide such institutions with the transparency and security that they need.

#### **Major financial services trends:**

We look for the further emergence of the 'Omni Channel' service concept, and especially in relation to consumer businesses. This will boost demand for technology solutions and Internet access. And the number of consumers is growing rapidly anyway. As in the rest of the world, consumers in Africa will place a premium on simplicity and convenience in their experience of dealing with financial institutions.

### ebankIT



**Joao Lima Pinto**  
CEO  
ebankIT

#### **Key reasons for attendance:**

We're proud to be a Bronze Sponsor of the conference. We are here to further develop our contacts in Kenya, which has one of the largest and most sophisticated banking sectors in Sub-Saharan Africa. It is an important market for us, and one that is simultaneously profitable and challenging. We are pleased to have been able to deliver some of the most innovative and disruptive digital banking solutions.

**Issues, challenges and client solutions:**

ebankIT has been implementing 'Omni Channel' digital solutions for financial institutions around the world. In addition to the existing banking digital channels, which will continue to evolve, we note greater interest in channels such as Watch Banking, Voice Banking, and Social Banking. This is driving change and boosting demand in other areas such as Data Analysis, Big Data, Digital Sales and Security, as well as Augmented Reality. Ultimately, banks' customers will be able to access information and services conveniently – at any time and from any place – regardless of the device used.

**Major financial services trends:**

Banking will continue to invest heavily in digital channels. This is partly because of the needs of the customers and partly because of the benefits that this investment will bring to the institutions themselves. Digitization changes the reality of Retail Banking – for the better – for both parties.

## intelworld



**Allan Rwakatungu**  
Founder & CEO  
intelworld

**Key reasons for attendance:**

Over 95% of customer to business and business to customer payments in Africa, and other emerging markets, are still cash - and cash is a very inefficient way for everyone to transact. Banks understand that mobile and electronic payments offer them and their business clients a huge opportunity to reach individual customers they were previously unable to reach (i.e. generally the unbanked) at low cost. Dot Finance Africa was attended by several banks. Our company, intelworld, attended in order to show banks and other financial service providers our solutions. We can make it very easy for them to make cashless payments to individual customers with mobile money, cards and through other means.

**Issues, challenges and client solutions:**

Businesses in Africa and other emerging markets that would like to carry out cashless transactions face several challenges. Our IP2 platform aims to resolve all those challenges.

First, how do the businesses get started – at low risk? Using IP2, businesses register and we give them a free safe testing environment (sandbox) to test their digital solution. Only when everyone is happy with the quality of the product being offered is it moved to production.

Then, how do they deal with fragmentation in payment methods (i.e. given that there are not only cards, as in the developed markets, but also mobile money, mobile banking and cryptographic currencies)? As the businesses test, we help collect their know your customer (KYC) information and, through our platform, submit it to our payment provider partners like MTN Mobile Money, Airtel

money, MicroPay, and banks to facilitate account opening. This is transparent to the businesses so that they don't waste time trying to figure out the different requirements for the different payment providers.

Third, how do they deal with fragmentation in devices (feature phones, smart phones, point of sales, kiosks etc.)? Through our easy to use application programming interface (API), businesses can integrate their apps and make them accessible to their customers via feature phones, smart phones, and other point of sales. We offer businesses a truly 'Omni Channel' experience.

Fourth, how does the new technology integrate with their existing technology? Our platform works with any back-office technology, allowing all businesses to fully automate their processes.

Finally, is their money and their customer's money safe? Settlement is directly through the businesses' bank accounts. We work with partners to ensure efficient reporting and reconciliation.

**Major financial services trends:**

In the future, absolutely all businesses will have to be digital to remain competitive. For consumer facing businesses, digitization is even more important. This is because digitization gives those businesses the chance to reach customers who were previously inaccessible (e.g. because the customers live in rural areas and do not have bank accounts), at very low cost. I would like to see banks and other financial institutions not just offer business accounts as stores of value: instead, they should offer business accounts as part of a holistic digital solution for their business customers – and ideally through intelworld.

## matchi.biz



**Sashreka Pillay**  
Financial Innovation Consultant  
matchi.biz



**Terence Singh**  
Fintech Connector  
matchi.biz

**Key reasons for attendance:**

Dot Finance Africa is unusual because it is focused on FinTechs and financial IT, rather than on banking in general. This is in a part of the world where many of the players' business models have had to account for the giant leap forward in technology and telecommunications. Africa has jumped from no telecommunications to mobile telecommunications at the same time that technology has enabled mCommerce. Some of the most innovative banking and financial IT solutions are being developed in and for Africa. And, of course, issues like financial inclusion and micro-insurance are more likely to be resolved in Africa than in Silicon Valley. We're here to build on the key commercial relationships that we already have in this part of the world, as well as to develop new relationships.

**Issues, challenges and client solutions:**

As noted, some of the opportunities and challenges in Africa are unique to Africa. And some of the opportunities and challenges are the same as they are in the rest of the world. Globally, there are many financial IT companies that lack size and resources. They have great solutions, but the banks that would benefit from those solutions are massive, complex, cross-border organizations where it is often very difficult for the financial IT to reach the right people. That is a gap that Matchi seeks to fill. We are an intermediary. We identify and curate innovations that are ready-for-market. We have developed a database of financial IT companies for financial services companies globally. We provide market intelligence and identify targeted solutions for the buyers of financial IT. Our platform includes literally hundreds of solutions.

**Major financial services trends:**

In essence, what will become clearer is: 'who is Uber?'. Conventional wisdom is that technology drives FinTechs, that FinTechs drive disruption and that disruption means destruction for most traditional banks. Actually, banks will mostly like become part of the 'Uber movement', rather than be a victim. Banks and innovators alike are appreciating the benefits that each other offer, and there is a move towards partnerships for mutual benefit. Disruption will come from Blockchain, but will likely be driven by the banks themselves. And, in the meantime, there will be greater awareness of the non-disruptive technologies that will still make significant impact on improved customer service, lower costs, reduced risk and greater efficiency.

## Path Solutions



**Mohammed Kateeb**  
Group Chairman & CEO  
Path Solutions

**Key reasons for attendance:**

We are innovators with a focus on Africa. Dot Finance Africa looks at innovation in the region. The conference recognizes Africa's leadership in e-payment and other solutions. Africa is also a region where financial inclusion is growing strongly. And it is an important part of the world of Islamic finance. This conference provided an ideal opportunity for us to meet with actual and potential clients. We are very unusual in that we are absolutely committed to finding solutions for Sharia-compliant financial institutions. We are present in almost every conference, seminar, meeting, workshop related to this segment. We have 25 years of experience, and now how to adjust very quickly to our clients' rapidly changing needs.

**Issues, challenges and client solutions:**

Islamic finance brings many opportunities, but faces a number of challenges. Many of the challenges reflect the fact that the

industry is a young one and, overall, is a long way from maturity. We'd add, though, that maturity and sophistication varies from country to country. In some places, appropriate products have not been developed to meet the needs of customers. In some places, regulation is an issue, as central banks struggle to understand Islamic finance. Further, many institutions look internally to their Sharia boards when they develop products, rather than to international bodies such as AAOIFI or IFSB.

**Major financial services trends:**

Information technology is already playing a key strategic role in shaping Sharia-compliant institutions and will continue to do that for years to come. Many FinTech companies and telecommunication providers will aggressively seek opportunities in this segment. There will be a relentless drive towards improved solutions: e-payments is just one example. That drive will be based on digitization. Financial institutions will look to their technology vendors for help with the transformation. Path Solutions is a company that understands this revolution very well. It is investing heavily in the new technologies - e-channels, mobile solutions, big data, analytics and social media tools among others - to safeguard its clients' competitiveness.

## Profile Software



**Akash Anand**  
Head of the Middle East, Africa and Asia  
Pacific Regions, Managing Director -  
Regional Affairs  
Profile Software

**Key reasons for attendance:**

Profile Software is a pioneering financial solutions vendor that invests in developing innovative systems for the industry. We are expanding our geographic footprint. Africa is an important region for us. Dot Finance Africa has been a valuable opportunity to meet potential partners. 2016 Lead Story

**Issues, challenges and client solutions:**

The profile of investors is changing. High Net Worth Individuals, regardless of age, need a personal relationship with their adviser. Younger investors are keener to use social media and modern technology. For many people, and not just those who are new users of financial services, mobile technology is playing a growing role.

I'd add that wealth management firms and banking institutions increasingly need to differentiate their offerings in order to stay competitive. In particular, they need to understand their clients' particular preferences, and tailor their offerings accordingly. And they need to recognise that clients want faster and more flexible solutions. Digitization and the Cloud are a part of this. Thirdly, peer-to-peer transactions are becoming a lot more important in many facets of financial services.

And there is a shift in favour of ethical solutions: the rise of Islamic finance is a part of this.

Profile Software's solutions have been built with all these trends in mind. For example, Profile's FMS.next platform has successfully been implemented in crowdfunding organizations, as well as in challenger banks and online banking institutions. Profile's IMSplus and Axia investment management platforms use the Cloud and can be accessed from many different devices.

#### **Major financial services trends:**

Look for greater flexibility. Banks and financial institutions need greater flexibility to meet the needs of regulators. They also need flexibility to meet the need of clients. Recognizing this, Profile Software has developed solutions that are flexible, and built on modern technologies and architecture. They may easily be customized, when needed, either by the user or the administrator. And the drive for greater efficiency is endless. Companies utilizing our platform experience efficiency and value for money over time, as they can easily perform complex tasks with minor adjustments. Upgrades to the system keep pace with regulatory and other market trends. Flexibility is central to products such as the FMS.next P2P Lending platform, the IMSplus Wealth Management system and the FMS.next banking system.

## Red Cloud



**Raymond Moodley**  
Executive Director - Africa &  
Global Director of Sales  
Red Cloud

#### **Key reasons for attendance:**

We like the environment of similarly-minded organisations and individuals who are excited about and participating in the financial IT revolution. We wanted to contribute to the discussion and share our own vision about the future of the industry. We want to learn more about how African banks are responding to the disruption of their industry that everyone is talking about.

#### **Issues, challenges and client solutions:**

We are here to showcase our innovative payments technology. We believe that the RedCloud One platform is reinventing the way Financial Services will be delivered. The Internet of Things is well documented and we believe that the Internet of Finance is now ready to be embraced. This is the space that RedCloud continues to invest in. Our mobile platform can help all financial services organizations, including banks and FinTech disruptors, to launch new products in a cost-effective way.

#### **Major financial services trends:**

One cannot be part of this space and not recognize the opportunity created by Blockchain. As our business development shows, payments technology is, in any case, changing rapidly. Our clients

want to deliver an 'Omni Channel' experience. They want to improve international payments and remittances. They want to offer new loan products. They want digitization. They want help in coping with the growing burden of regulation.

And change arises from the combination of new technology. Together with the Cloud, the continued growth of smartphones in this part of the world will truly bring financial services to the masses. Technology is propelling financial inclusion. It will enable financial institutions of all kinds to reach the scale that they seek at a speed that would have been impossible with a traditional 'bricks and mortar approach'.

## Simbuka



**Daan van Kassel**  
Head of Business Development  
Simbuka

#### **Key reasons for attendance:**

Simbuka is a developer of loan origination, credit scoring and credit portfolio management software. The company name originates from Rwanda, the country where we implemented our tools for the first time in 2011. Although nowadays we also have operations in Asia, Europe and Latin America, East Africa is still our most important market. When we heard that the Dot Finance Africa event would be organized in Kenya, we immediately realized that the event would provide a great opportunity to engage with likeminded financial IT companies and potential clients. Apart from our commercial interest in the event, we believe that it is important that the event was organized in the first place. Most bankers are not known for their desire to be at the forefront with technical innovation. These days, banks and micro-finance institutions are globally challenged by FinTech companies and innovative non-financial institutions. As we learn from our discussions with management teams of banks and micro-finance institutions, in East Africa the gap between the available technical opportunities and the daily practice is even larger than in other regions. In spite of the mobile revolution in the region, the vast majority of banks and micro-finance institutions still works with paper loan applications that are manually assessed and that are discussed in credit committees. These practices lead to unnecessarily high transaction costs and a needlessly high level of operational risk. The paper-based administration that we come across at the banks we visit in East Africa provides very limited room for any quantitative analyses or factual decision making. Usually the only digitally available information is stored in the core banking system or the Credit Reference Bureau (CRB) databases, and is not used to its full potential.

By arranging an event for both large core banking system providers and young FinTech companies, and for both small local micro-finance institutions and large international banks, Dot Finance has created an important opportunity for a variety of technological and financial players to engage with each other and learn from each other.

**Issues, challenges and client solutions:**

We believe that there are three levels of technology adoption for banks and microfinance institutions. The first is digitization, the transforming of traditional processes and practices into digital and automated processes. The second is strategic positioning. That is the usage of technology to adjust or expand current processes, products and services. The third is disruption, which is the usage of technology to introduce new products, services or practices.

Many of the innovations presented at Dot Finance Africa and other financial IT events are focused on alternative delivery channels, Blockchain technology, cryptocurrency or big data analysis. In other words, they are targeting an audience that is ready for 'disruption'. Unfortunately, the mindset of most financial institutions in East Africa is set to 'digitization'. This complicates the collaboration between financial institutions, FinTechs and financial IT companies. As Simbuka we try to bridge this gap. We visit our prospective clients and take their loan origination processes and credit decision making as a starting point for the customization of our tools. Together with our clients, we first automate and later optimize current lending practices. Then we gradually implement credit scoring and automate the collection, analysis and use of available data. Once our tools are implemented, our clients open the door to more disruptive delivery channels, fully automatically assessed credit applications, automated client communication (sms/e-mail/calls/documents), biometric identification and other strategic technological opportunities.

**Major financial services trends:**

In countries like Kenya, Tanzania and Uganda, the last decade made banks and micro-finance institutions lazy. As a result of the growing demand for financial services, many were able to increase their loan books at double-digit annual rates simply by opening new branches. That time is over. The corporate and large SME segments are saturated, and the competition in the still growing lower segments is increasing. Financial institutions will have to find ways to differentiate, focus or be more efficient than other financial and non-financial players such as mobile network operators.

This last group has already become an important player in the financial services sector, now that almost all East African households have at least one mobile phone, and about one third of the population daily uses mobile payment solutions. Meanwhile, for both traditional and non-traditional financial players, the technology is there to significantly reduce transaction costs with automated loan processes, to collect large amounts of data provided by prospective borrowers, data partners and open data sources, and to efficiently process this data with credit scoring algorithms and management information systems. We strongly believe that the banks, micro-finance institutions and non-traditional financial players that understand these opportunities will be outperforming their peers in the next few years. At Simbuka, of course we hope to play a role in this. An expected side effect of this change is an increasing level of M&A activity. M&A deals will also be stimulated by higher levels of regulation. We think that, in a decade's time, one third of the banks and micro-finance institutions in East Africa will no longer exist in their current form.

These are truly exciting times to be working in the African financial sector.

**Vysoft**

**Shanu Hoosen**  
MIS Manager  
Vysoft

**Key reasons for attendance:**

Dot Finance Africa provided a good networking opportunity that allowed us to check our product offering for market relevance. It was also great to hear from market leaders on their thoughts, ambitions and their perceptions of the way forward.

**Issues, challenges and client solutions:**

VySoft has developed several products to reduce risks from non-compliance with regulation – such as the Financial Centre Intelligence Act of South Africa. We have developed a Client Record Management system that allows a business to understand which clients require remediation. This is in line with the AML (Anti-Money Laundering) regime. We also offer a Dynamic Data Encryption tool. More data is currently being created across more mediums and channels. With this change, we find that there are more opportunities for un-authorized users to gain access to this data. Globally, the cost of a breached data record ranges from US\$96 in the public sector, to US\$316 in medical. The financial costs of these breaches are substantial and, in some cases, can bankrupt companies. Apart from the direct cost, we also find that customer loyalty diminishes to a company in which a breach occurs.

We also offer solutions that measure the efficiency of company call centers.

**Major financial services trends:**

We would highlight innovation and digital disruption. We are leaving an era when it was acceptable to optimize current processes. We need to start re-engineering and building faster and continually available features for our customers. We also need to understand the next generation of customers. Some of our future customers do not understand the definition of the Internet: they only know that it is there. We also believe that AI (artificial intelligence) and machine learning will start making a stronger presence in our daily lives.

# Community and Collaboration Investment Data Management Back Office and Analytics

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# Wrangling Big Data for big banks, big telecoms companies, big consumer companies...

Interview with Jeremy Perlman,  
Vice President – Sales EMEA at Trifacta

*Financial IT: Jeremy, please introduce us to Trifacta and its product.*

**Jeremy Perlman:** Trifacta has been around since 2012 and was born out of joint research between University of California, Berkeley & Stanford University. There are three founders: Sean Kandel, a Stanford PhD student who had previously worked as a data analyst for the Citadel Group; and two university professors, Joe Hellerstein (data-centric systems) and Jeffrey Heer (data visualization).

When Sean started his PhD, Big Data was a hot topic. Most large enterprises were looking for a data-driven approach that would enable them to undertake predictive analytics and gain competitive advantage with data.

Based on findings from the research conducted by Sean, Jeff and Joe, and further corroborated by our experience, doing the analysis is not the difficult part. The real challenge is to clean and prepare the data for analysis. Experience shows that such data could be in any number of various formats. It could be unstructured, incomplete, of questionable quality and/or coming from multiple sources. Data analysts can spend as much as 80% of their time preparing the data for analysis and only 20% actually doing the analysis.

Trifacta's aim was to take big data and make it super simple for non-technical people to discover, structure, clean, enrich and validate the data before publishing it for analysis. In this way, the people solving

business problems and with the context on those problems can do so in a self-service way while significantly reducing the time to valuable business insight.

Based on this, the founders built a revolutionary data wrangling product. The product was trialed on Stanford's website and had tens of thousands of downloads in the first month. Based on the founders' backgrounds, their research and this success, the founders secured investment from Accel Partners, one of Silicon Valley's leading VC firms, and started building the company.

*Financial IT: Who are your clients?*

**Jeremy Perlman:** We have a broad range of clients from different business industries such as LinkedIn, GoPro, Orange, PepsiCo, Sanofi, Johnson & Johnson, Proctor & Gamble, Zurich Insurance, as well as a number of banks like RBS, Santander and Unicredit. The issues that our clients look to address with our solutions are similarly varied. Those issues include: compliance and regulation, risk management, AMLCFT, investment, manufacturing processes and a 360-degree customer view.

Our solution can be deployed via the cloud or on-premise for those clients who are sensitive about data, such as banks and financial institutions. We have employees in UK, France, Germany and the United States.

Recently, we entered into a strategic partnership with Infosys, with Infosys investing in Trifacta and selecting Trifacta as the data wrangling solution for the Infosys



Information Platform (IIP). We have also partnered with over 30 reseller and integration partners across Europe.

*Financial IT: Can you please give an example of how your product helped a major bank?*

**Jeremy Perlman:** Recently we worked with the Royal Bank of Scotland to improve its customer services. They have over 250,000 web chat conversations with customers every month, and they were eager to analyze this information to gain new insights on these customer interactions, to allow them to provide additional services for their customers. Before we arrived, their web chat team could really only review about 200 conversations each month. The bank was unable to make sensible decisions about how to improve its customer service on the basis of such a small sample.

Trifacta's solution was transformational. RBS was able to evaluate all the web chat conversations. The amount of time spent on data wrangling was reduced dramatically through the automation and user-friendly interface of the Trifacta solution. This freed up a lot of resources within RBS' analytics team. With access to a massively increased amount of feedback from customers, staff are now able to focus much more on particular areas that are of greatest concern to customers. The experience empowered the analytics team to leverage the value within their Big Data: this in spite of the fact that many team members did not come from a traditional Big Data background.

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# WHY DATA PRIVACY IS THE TICKING TIME BOMB



**Stuart Lacey,**  
CEO and founder of Trunomi



Financial institutions consumer and business customers share growing demands on the handling of their data. Indeed, having control over the use and storage of data has evolved from a hope to an expectation.

The consequences of a data breach are no longer reputational alone and firms can equate actual business impact to poor data security or handling processes. Earlier this year, UK telecoms firm, TalkTalk experienced a breach which led to more than 100,000 customers switching providers, costing the business £40m.

In 22 months the pressure on financial institutions to manage data privacy issues will significantly intensify. The EU General Data Protection Regulation (GDPR) will come into force and fundamentally change the way that companies capture, manage and store information.

Banks across the UK and the EU, where the regulation was ratified, have been warned not to be complacent. Even facing exit from the EU, British banks will be bound to comply due to the broad scope of the regulation.

The new EU GDPR will apply to the management of all types of personal data belonging to any EU citizen, no matter the global location of the company processing the data.

Moreover, regulators have highlighted that the regulation is borne out of a market demand. In the past ten years, the spread of glo-

balisation, rapid advances in technology, and the proliferation of digital personal data have led to an avalanche of data privacy concerns.

With data privacy now a boardroom issue, financial institutions cannot fail to get to grips with the secure management and use of their consumer and business customers' data. They face the daunting prospect of having just two years to completely overhaul legacy systems and practices to implement 'privacy by design' in order to comply with GDPR.

## Regulation timeline

The existing regulation of personal data management dates back to 1995, a time before the majority of financial services providers had digital relationships with their personal and business customers. It harks back to a time when only one in 10 adults used the Internet.

Research from CACI for the BBA in 2015 predicted that British banking customers will use mobile devices to check their current accounts more than double the frequency at which they have branch interactions. By 2020 they are forecasting that customers will use their mobile to manage their current account 2.3 billion times – more than internet, branch and telephone banking put together.

This step change in how personal data is used in the banking industry demonstrates



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the industry-wide drivers behind a new approach to data protection.

The GDPR has been the most lobbied regulation in the history of the European Parliament, to the tune of 4,000 amendments. The reason is the monumental impact it will have on companies doing business in the EU and non-EU businesses targeting European data subjects. It has been in progress since 2012 and was approved by the European Parliament, European Commission and European Union in December 2015. Now that it has been formally adopted, financial institutions have just 23 months to comply.

As a Regulation and not a Directive it does not require any enabling legislation and must be adopted in May 2018 by any company managing data belonging to an EU citizen.

### Three core rulings under GDPR

There are three significant reforms within the legislation that will force all institutions to overhaul their existing systems and processes:

1. Informed consent
2. Data portability
3. The right to be forgotten

#### Informed consent

When the GDPR comes into force, every financial institution that collects, processes or shares an EU citizens' personal data will need to gain their 'freely given, specific, informed and unambiguous' consent, shown either by a statement or a clear affirmative action. Financial institutions must be able to demonstrate that consent was given.

In order to achieve informed and unambiguous consent for every specific use of personal data, financial institutions face a significant increase in customer communications. This must not only be managed from the perspective of the customer but also in terms of information storage and retrieval.

Put simply, a 'one size fits all approach' to capture consent is no longer sufficient. Banks will have to completely redraft the standard terms and conditions that are the bedrock of customer engagement.

Institutions are already investigating innovative, digital means to manage this communications flow. However, it is not as simple as creating a process through which to ask for consent. Institutions must also consider the need to capture gained consent in an auditable workflow. Undertaking this

task with anything other than an automated, secure, digital communication link with the customer would be a huge administrative and compliance burden.

Financial institutions have been given lengthy notice of the changes, but this is for good reason. Regulators recognise that existing, often manual, paper-based, systems are a long way from compliance with the GDPR.

Facing such comprehensive changes to data privacy and data management, financial institutions are increasingly turning to Regtech startups. Regtech businesses offer solutions that integrate with the banks' existing technology, making it as simple as possible for them to 'plug in' compliance expertise and technology.

#### Forget and move on

Other key elements of the GDPR are the Right to be Forgotten and Data Portability. Both call for a digital approach that enables a more responsive and transparent information exchange, in line with the demands of the GDPR.

The essence of the Right to be Forgotten and Data Portability is providing customers with greater control over their personal data and digital identity.

For the Right to be Forgotten, the regulation stipulates that consent is only freely-given if the data subject (the consumer or entity) has genuine and free choice and, crucially, they are able to refuse or withdraw consent.

If consent is withdrawn, individuals can request and require the erasure of their personal data without undue delay.

Trunomi believes financial institutions must employ a 'customer-driven' approach to information sharing. This involves empowering the customer to both share and rescind data on a case by case basis. To this end, firms are exploring digital rights management services that create a digital 'vault' for customers to store their personal data.

Digital Rights Management also enables simplified and streamlined Data Portability, alongside the Right to be Forgotten. Under the GDPR, Data Portability will ensure that customers have the ability to request copies of their personal data in a useable format. They will then be able to transmit this data, electronically, to another processing system.

#### Paying the price

The fact that the regulation requires such a significant overhaul is currently

stalling some banks in getting to grips with it. Knowing where to begin is a huge challenge. The stakes, however, are very high and institutions should not delay. With large multinational institutions front of mind during drafting, the GDPR will impose an eye-watering financial penalty of 4 percent of annual global turnover or €20 million, whichever is greater.

As financial institutions find themselves under growing legal scrutiny across the board that is exposing them to even greater reputation vulnerability, organisations would be foolish not to make every effort to reduce their corporate risk. This is particularly pertinent in relation to global data protection challenges.

#### Act now

UK banks should be in no doubt that they must also prepare for the regulation in the next 22 months, alongside their European counterparts. The Information Commissioner's Office spoke after the UK's referendum, stating: "If the UK is not part of the EU, then upcoming EU reforms to data protection law would not directly apply to the UK. But if the UK wants to trade with the single market on equal terms we would have to prove 'adequacy' - in other words UK data protection standards would have to be equivalent to the EU's General Data Protection Regulation framework starting in 2018."

The data protection time bomb is ticking. Non-compliance with this landmark regulation is not an option. Not only are financial penalties high, any institution failing to meet the incoming standard for data protection is ignoring the will of the people.

Consumers want change and want to take back control of their data.

Banks must navigate this environment. Firms that successfully put the power into the hands of their customers will not only tick a compliance box but they will also make positive strides in reputation and differentiation. Put simply, there is more at stake than regulatory compliance alone and the institutions that realise the opportunity of GDPR stand to gain more in the long term.

GDPR will be live in less than two years' time. Now is the time to revolutionise the way that financial institutions create, manage and interact with customer data.

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**David J. Csiki,**  
President of INDATA



# BIG DATA & THE BUY-SIDE: WHAT MATTERS MOST FOR INVESTMENT MANAGEMENT FIRMS?

An interview with David J. Csiki,  
President of INDATA



## *Financial IT: How would you describe INDATA?*

**David:** INDATA is a leading industry provider of software, technology and services for buy-side firms. Our offerings include trade order management systems (OMS), compliance, portfolio accounting and front-to-back office solutions. All are delivered via our iPM Epic platform – the industry’s first investment technology platform specifically designed for the era of big data.

So, what the application of big data technologies provided by Epic means for our clients on the buy-side is that they can more efficiently integrate data from a wide variety of sources and use this information for different purposes. This may be in response to greater compliance requirements, or it may be to help seek a competitive advantage in terms of using information for more efficient marketing via big data analytical tools as an example.

iPM Epic takes agile big data technology, and integrates it with the solutions that we provide, through our iPM Cloud and through on-premises offerings.

## *Financial IT: Tell us about your clients and the problems that you solve for them.*

**David:** Right now, compliance is a hot topic on the buy-side. If you take a look at the greater regulatory standards and reporting requirements such as MiFID in Europe, and Dodd-Frank in USA, you will see that the requirements imposed on buy-side organizations are large and ever changing.

It is a growing challenge to gather data from disparate sources and produce the required reporting quickly and accurately. Big data technology can be a great help in aggregating data from multiple systems – trading systems, accounting systems, data providers and so on. It can also be a great help in ensuring that all the data ends up in a useable format for reporting purposes or for dashboard visualizations. We work with our clients to do this, to produce the tailored output that is needed.

## *Financial IT: Do you offer a cloud-based product?*

**David:** We offer our clients a cloud-based product, iPM Cloud, but we also have on-premises solutions, and can deliver whichever the client prefers. What really matters, though, is that we provide

the same technology solution whether it is cloud-based or on premise and solve the technological challenge of integrating relational database platforms with big data tools.

We started out with on-premises software, which was the industry norm at that time. We launched iPM Cloud in 2011 which is currently the choice for three-quarters of our new clients coming on board who are keen to adopt cloud-based solutions.

As investment management firms, our clients typically do not want to make a large commitment to maintaining in-house IT as it is not core to their business. They are happy to effectively outsource the IT work to us, and appreciate the benefits of cloud-based delivery. In particular, it is much easier for us to provide the support, and the technology updates that are needed than would be the case with on-premises products.

## *Financial IT: The buy-side community is talking a lot about data security. How important is it, really?*

**David:** Having data security is a key part of providing a complete technology solution. We spend a lot of time on safeguarding our cloud solution using a range of different technologies and best practices. We make sure that the clients understand the security features that we provide which gives them greater confidence.

## *Financial IT: What are the main trends for buy-side technology, as you see them?*

**David:** Never underestimate the pace of change in the tech world. One of the challenges for our industry over the next five years will be to ensure that we are applying all the cutting-edge technologies as they become available for the benefit of the client. It remains to be seen, for instance, what will be the impact emerging tools like blockchain, for example.

Another trend will be the need for providers such as ourselves to continually broaden our offerings. Ideally we should be seen as a source for a comprehensive range of outsourced solutions.

It is also very likely that regulations will continue to bring new challenges for our clients – and also opportunities for us in helping the clients to resolve these challenges within a wide variety of markets globally.



# REGULATING BLOCKCHAIN: THE ISRAELI BLOCK IN THE CHAIN

Special Counsel Roy Keidar, Yigal Arnon & Co examines the emergence of Blockchain in Israel, with the assistance of Ahuva Goldstand

Bitcoin, the first truly decentralized virtual currency, emerged onto the financial markets in 2009. Its origins and the enigmatic Satoshi Nakamoto remain shrouded in mystery. What is undeniable, however, is that Bitcoin has garnered worldwide attention and appreciated in value to about 500 euros per bitcoin today. Reception of Bitcoin by the general public, government authorities, and financial institutions has fluctuated between indifference, confusion, and recently, growing interest, although the predominant mainstream approach is still one of skepticism. Yet even Bitcoin's greatest critics have come to recognize and appreciate what many argue is Bitcoin's key innovation: Blockchain, the underlying technology on which Bitcoin is based. This is why the recent June 2016 resolution adopted by the European Parliament, a fairly conservative institution, to take a "hands-off" approach to the regulation of the Blockchain may signal a significant about-face in the approach towards Blockchain and VCs.

The resolution sets a slightly different tone than previous official 'risk-averse' statements. It remarks that to address the inherent risks—such as consumer protection problems, high volatility, legal uncertainty, and black market transactions—will surely require enhanced regulatory capacity and the development of a sound legal framework. However, the vital point is made that regulation adopted too early, while the field is still in its nascency, could suppress or even abort its continued development

and convey the wrong message to the public about the advantages and security of VCs. Ultimately the resolution emphasizes the potential advantages of Distributed Ledger Technology (DLT) like Blockchain, to contribute positively to citizens' welfare. Therefore, it calls for a "proportionate" regulatory approach in order not to stifle innovation or add superfluous costs. Moreover, the resolution takes a definitive stance in recognizing the potential for Blockchain beyond Bitcoin, to accelerate, decentralize, automate and standardize data-driven processes.

In its essence Blockchain is a shared digital ledger that tracks data transferred between users, or participants, in chronological order. Each new record of a transfer is cryptographically verified and added to this ledger as a new "block" in the chain. The entire chain is totally transparent and publically viewable. What makes this ledger unique is that it is cryptographically sealed, so that no record can be tampered with after it's been added to the ledger, and it's completely distributed, so that no one participant has control over it: the Blockchain can only be updated by consensus of a majority of the participants. These key features mitigate the risk of fraud, and perhaps more importantly, remove the need for any centralized coordinated verification process. In this sense, the distributed nature of Blockchain could pave the way for significantly reducing the role of one of the main actors in our society: the middleman. We've already come to know other new services al-



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ready doing this, like Uber or Airbnb. In the context of Blockchain, Bitcoin is the best-known example, removing the need for any central authority to approve or secure transactions, and enabling trustless, peer-to-peer exchanges instead. This renders DLT one of the most exciting and potentially game-changing innovations since the Internet.

Indeed, Blockchain's capacity is not limited to transfers of digitally stored value like bitcoins. Recently, more sophisticated uses for DLT, what some call "second wave" Blockchain, have begun to emerge. The emphasis has shifted from virtual coins to more tangible applications, enabling users to verify transactions and acting as a trusted repository of information without an intermediary. The applications for DLT are seemingly endless, and many of them come with clear legal implications. For example, self-executing, digital contracts, nicknamed "smart contracts". By using a distributed database, like the Blockchain, parties can confirm that an event or condition has taken place without the need for a third party. Smart contracts could be applied in various formats, from paying employees, distributing music royalties, or even eliminating the need for will probates by automatically checking state death registries, automatically allocating the assets from the testator's estate, and transferring applicable taxes to the government.

Other manifestations include fraud resistant voting platforms, "digital escrow" or multi-signature transactions, the creation and trade of securities and financial products, registries for property and intellectual property, domain names, identity, ownership rights, and on and on. DLT is also forecasted to have major impact on mainstream implementation of the Internet of Things (IoT). DLT offers secure and trustless coordination for this network of billions of inter-connected devices. Cryptographic tokens, or "colored coins", used to represent these devices, or any asset, are registered on the Blockchain. This "smart property" can then be controlled over the Internet, or even by other machines. Combined with smart contracts, the corresponding rights and obligations connected with these devices can be automatically allocated and even enforced.

Despite its small size, Israel, long recognized as a hotspot for disruptive innovation, is becoming a leading force in Blockchain technologies. The flourishing Israeli tech ecosystem, boasting the highest concentration of tech companies outside of Silicon Valley, provides fertile ground for pushing DLT forward. One of the biggest proponents for this is the fact that Cyber security and cryptography play a key role in the Israeli defense establishment, and the military serves as a potent incubator for these fields. The current climate is reminiscent of the development of the cyber industry in the early 2000's. A vibrant profit-driven private sector coupled with passionate and talented entrepreneurs, sees an early influx of capital. This, in turn, attracts the attention of the government which utilizes its regulatory and institutional powers to allow for an increase in capital, both financial and human, including the establishment of relevant supportive institutions, incentivizing academia, and generating a substantial amount of buzz.

Israeli universities are home to a number of Blockchain research pioneers, including Turing Award winner Professor Adi Shamir of the Weizman Institute of Science and Prof. Eli Ben-Sasson of the Technion. In the private sector, as per a recent report by the global consulting firm Deloitte, there are dozens of Israeli start-ups developing a wide-range of Blockchain technologies, in various sectors including security, hardware, virtual currency, payments, P2P

and social platforms. For example, a start-up offering a Blockchain solution to eliminate the need for documents in international shipping agreements, an application for secure and validated purchase and storing of goods online, and another creating Blockchain data templates for use by banks and enterprises.

While the Israeli Blockchain eco-system is vibrant, the Israeli regulator is still 'sitting on the fence'. Given that future uses of Blockchain technology, and its various implications, are unpredictable, this is to be expected. Regulators worldwide remain suspicious of virtual coins for enabling individuals to circumvent banks and government authorities. The SilkRoad and Mt. Gox scandals certainly did not lend any additional credence to the enterprise. But beyond understandable concern for criminal misuse and consumer protection, it is clear that resistance may be more deeply rooted: any decentralized alternative to centuries-old systems of centralized governance and control is not something any regulator can swallow too easily.

In this way Israel is somewhat unique. Due to the small size of the Israeli industry, there is constant friction between the private and public sectors. This leads to an unlikely type of interaction between the two, and oftentimes creates an almost unavoidable, albeit sometimes wary, alliance. This is something we are currently witnessing generally in the burgeoning fintech industry. Regulation of the banking sector, particularly conservative, and often slow-moving, now finds itself faced with the need to adjust to hundreds of start-ups operating in almost every financial sector, including payments, trading, lending, anti-fraud, and insurance, offering relatively simple solutions to complex financial problems. Together they generate an 'Israeli fintech hybrid' that is slowly and rapidly transforming the industry.

Thus, the regulator now finds itself poised at a crossroads. The pressure is on to learn to adapt to these new technologies, with an aim to encourage and support them. As evidenced in the EU resolution, it is clear that regulators are beginning to understand that they must look before they leap. The concern of regulating "too much" or "too early" is salient. But the real question seems to be not when or to what extent, but rather how. How do you regulate decentralized network? This is precisely what is missing in last month's resolution.

Several possibilities come to mind: developing Blockchain's non-proprietary open standards and standards of best-practice, clarifying matters of jurisdiction, subjection to already existing *lex specialis* legislation (such as consumer protection laws, financial regulation, securities, money laundering and insurance), and learning to utilize those very characteristics of DLT itself to enforce it. The question remains to what extent the regulator will allow the gradual implementation of such technologies into the more conservative financial system.

What is certain is that regulation is still a vital piece of the puzzle. The regulator is indispensable in providing an appropriate support system, including mechanisms for supervision and constructing an appropriate legal framework within which to work. This in turn will help build consumer awareness, understanding and confidence in the new technology and accommodate the move of DLT from fringe to mainstream. In the meantime, the vibrant Israeli industry will likely continue to generate innovation using Blockchain technology, eventually leaving the regulator no choice but to join in, which if done correctly, will likely give a huge boost to the Israeli industry.



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# TRADE PROCESSING: MORE COMPLEXITY AND MORE SPEED

Interview with Russ Hatton, SVP, Head of European Pre-Sales and Business Development, SmartStream

**Financial IT:** *What are the most important trends that you are seeing in trade processing at the moment?*

**Russell Hatton:** There is a new focus on reconciliations. Buy-side and sell-side players are much more aware of the challenges of reconciling complex trades – fixed income, OTC products, exchange-traded derivatives etc – with the various central clearing counterparties (CCPs). In particular, there is a new emphasis on risk management systems that identify when trades are not matching.

**Financial IT:** *What is driving this?*

**Russell Hatton:** This is the result of new regulation and, in particular the EMIR and Dodd-Frank regimes. Under the Dodd-Frank regime, the party that is dealing with the CCP has to monitor and manage trade breaks on a daily basis and to report on those breaks.

**Financial IT:** *The additional reporting requirements are what, exactly?*

**Russell Hatton:** It is now necessary to identify the reason for breaks and to quantify the financial values that are involved. So trade reconciliation is more complex. Consider, by way of example, a sell-side player that is doing a reconciliation of an exchange-traded derivatives deal. The player will have to do a positional reconciliation, a trade-by-trade reconciliation and a cash movement reconciliation. More than that, it will be necessary to combine all this into a single reconciliation across all assets that they settle through a particular CCP.

In other words, Dodd Frank and EMIR have required a single solution that handles all elements of trade reconciliation for all assets with all CCPs.

**Financial IT:** *Are there other trends that you would highlight?*

**Russell Hatton:** There is also a growing requirement for 'ad hoc' reconciliations. For instance, if a buy-side player needs to reconcile the details of the trade repository, where the trades are booked, against the details in the risk management systems. This would be done in order to ensure that all components of the trade comply with the risk management requirements. It may be a part of a regular audit. Traditionally, those reconciliations have been carried out on an 'ad hoc' basis – through the comparison of spreadsheets. That process takes a lot of time. Our offering enables the client to upload the two relevant files, after which the system will automatically analyze the data: it will then produce a report on which trades do not match and why they do not match.

**Financial IT:** *So you deliver much greater speed?*

**Russell Hatton:** That is right. And speed matters more. Increasingly the exotic trades, such as OTC products, have to be reconciled on a real-time basis, rather than on the traditional T+1 basis. That is usually because of the need to understand the impact of the trade on the overall risk profile.

**Financial IT:** *What impact does Basel III have on all this?*

**Russell Hatton:** Basel III standards require more stringent liquidity reporting, on an intraday basis. This relates to a client's liquidity usage, and the amount of capital assets that they have to hold so they are not penalized by a central government bodies.

As part of the SmartStream cash management solution, we offer an intraday liquidity module to allow clients to monitor their liquidity usage on the information coming in relation to debit and credit movements, the available lines of credits, both secured and unsecured, and the available collateral cash balances.

**Financial IT:** *Are those modules part of your flagship TLM product?*

**Russell Hatton:** We deliver solutions to most of the processes within the middle- and back-office of institutions, all of which come under the umbrella of Transaction Lifecycle Management (TLM®). We offer TLM Reconciliations Premium, which covers all asset classes and which can do a multi-asset reconciliation in a single dataset. As noted, we offer TLM Cash Management, with intraday liquidity. We offer TLM Client Money Segregation, which allows banks to report their clients' money segregation. Other solutions include TLM Corporate Actions Processing, TLM Collateral Management, TLM Confirmation Management, TLM Fees & Invoice Management and the Reference Data Utility.

## About Russell Hatton

*SVP, Head of European Pre-Sales and Business Development,  
SmartStream*

Russell Hatton has been a Senior Pre-Sales Consultant at SmartStream for over 18 years. As part of the sales team, Russell is responsible for presenting SmartStream's TLM solutions which focus on the automation and improvement of clients existing processes.

Before joining SmartStream Russell worked at Chase Manhattan Bank where he held a number of positions in back office operations and treasury support. Prior to this he gained experience of financial services as a dealer on the London Stock Exchange.



**Financial IT:** *In short, you offer a comprehensive range of solutions that enable your clients to meet the new regulatory requirements.*

**Russell Hatton:** Exactly. And Dodd-Frank and EMIR are not the only sources of new challenges. IOSCO is requiring management of collateral for uncleared derivatives as well as cleared derivatives. And we believe that our collateral management solution will be able to meet all the requirements. It will also help our clients to manage collateral in the optimum way.

**Financial IT:** *Looking forward, how do you see your competitive position?*

**Russell Hatton:** Our reputation in the industry means that we have been successfully working with over 70 of the top 100 global banks.. We also work with eight of the 10 largest custodian banks. Our clients also include insurance companies and corporates.

Our position comes in part from our ability to deliver solutions that help our clients to meet the ever-growing reporting requirements and, therefore, to control risk. I would also add that we are competi-

tive because we help our clients to reduce costs. Our clients can work with us in a number of ways. They can use our solutions on their own premises, through our data centers or in the cloud.



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Financial IT  
Innovations in Technology



**Bill Blythe,**  
Global Business Development Director at Gresham Computing PLC.



# The practical details of meeting MiFID II's requirements

Interview with Bill Blythe, Global Business Development Director at Gresham Computing PLC.

**Financial IT:** *Bill, recently Gresham published the White Paper "Data Integrity for MiFID II", which discusses the new regulatory environment. Could you please briefly describe what MiFID II actually means for banks, broker/dealers, regulatory bodies and other third parties? And, what would be the overall effect once it goes live in January 2018?*

**Bill Blythe:** MiFID II is one of the most wide ranging pieces of legislation developed for financial markets. It focuses on five key aspects: governance, investment protection, markets, third country aspects and processing. From our experience, many institutions had some troubles with MiFID I in the past, as it was difficult for them to adapt and apply the new rules' requirements. It looks as though MiFID II is going to be tough for everyone. The main challenge for both the sell- and buy-sides will be the whole set of broadened obligations, along with the need for increased transparency around market activity.

**Financial IT:** *You've mentioned the new set of obligations. What are they? We suspect it is mostly related to new reporting standards.*

**Bill Blythe:** Exactly. The reporting of trades and transactions is one of the main areas of change. For example, under MiFID II, transaction reporting will include the information about the real-time exchange-traded derivatives, commodities, interest rates products, etc. And the number of data fields in the report will be significantly increased. Finally, both the transaction initiator and the executor should be identified. Under the new trade reporting obligations, the sell-side is responsible for making the report, unless the buy-side is a Systemic Internaliser (SI) for that asset class. If not, then the buy-side remains responsible for reporting. MiFID II also brings more complicated broker relationships, which means that the

buy-side is obliged to have its own report apart from their broker's one. The details required are more numerous than under MiFID I, and include personal data for the investment committee approving the transaction. All this will help to increase security and data protection. However if there is no agile technology supporting the new requirements, the chances for errors will only increase in the future. That may lead to huge fines and losses for all counterparties.

**Financial IT:** *You've told about the third country aspect. What does that mean?*

**Bill Blythe:** MiFID II is a regulation that has direct force across EU. For non-EU firms there is a mixture of harmonized requirements that will apply across the EU and the third country. At the end of the day, MiFID II is about the need of flexible, robust and agile framework that will allow all market participants have a smooth transition to the new regulatory environment.

**Financial IT:** *What can Gresham offer the market?*

**Bill Blythe:** We've created something unique, fresh and innovative for the market. Gresham CTC, the enterprise data integrity platform, allows the user to onboard, hold and consume the data from multiple sources, and analyze the real-time market data in hours rather than days or weeks. We also deliver a quick integration with client back-office systems and the Approved Reporting Mechanism (ARM): this ensures that integrity and data validation requirements are met. We make it easier for our clients to meet the new MiFID II requirements.

**[White Paper "Data Integrity for MiFID II"](#)**



**Tony Sodhi,**  
Head of Legal, Regulatory and Compliance at GFT

## How to comply and manage ongoing regulatory change – the need for a holistic regulatory change management tool

One burning question that all financial institutions are currently seeking an answer to, is how can they successfully comply with and manage the increasing burden of regulation whilst continuing to focus on core activities and improving their return on equity (ROE) figures.

Sadly there is no one definitive answer to this question. Firms may feel that the industry has become over-regulated but the fact remains that regulation is not going to go away. There is no doubt that financial institutions across the globe have risen to the regulatory challenge in a number of different ways. However, too many have relied on tactical solutions and workarounds to address the challenge. While these may have worked in the past and lead to short term goals being achieved, the long term effects are somewhat different.

The continuing over-reliance on tactical solutions is unlikely to be effective in dealing with increasingly complex and simultaneous regulations in the future. This explains why we urgently need to consider a new approach.

### Recognising the challenge

The regulatory challenge is both complex and daunting. The only way firms can approach this challenge with confidence is by re-designing, implementing and managing efficient processes to on-board regulation and maintain compliance. Before this can happen, we need to understand more specifically the challenges that financial institutions face.

The overall challenge can be separated into four distinct categories, all of which need to be addressed if a regulatory change programme is to be implemented successfully. These categories include:

- The growing volume, complexity and concurrency of regulatory change
- The need for a governance structure
- Managing the cost of implementation
- Resource constraints

All financial institutions will be at different stages of maturity in terms of their change programmes. Adopting a strategic approach is the best method to tackle the challenges highlighted above; addressing them simultaneously rather than individually, which has previously been the default approach.

A successful regulatory change management process must encompass both technical and business processes. Regulatory change needs to be embedded into the mind-set as part of ‘business-as-usual’ and is part of the ongoing requirement rather than an individual necessary evil that comes and goes.

The change management process should seek to build a central source of regulatory knowledge and information that allows for a standardised interpretation of regulations and their impact, from both a cross-functional and cross-product perspective. The change management process also requires the establishment of good governance structures and a framework that embeds traceability for reporting requirements.

### The pace of regulation is increasing

The pace, volume and concurrency of regulation has now increased to such an extent that many financial institutions need to reconsider how they analyse each new requirement. This should be done in a structured way that ensures consistency and mitigates against regulatory risk. Many of today’s existing regulations have evolved, and will continue to do so in the future. Financial organisations should be monitoring and reviewing their business processes to ensure ongoing compliance.

In many institutions, internal legal departments are tasked with the assessment and analysis of new regulations. This can often lead to problems where a practical knowledge of business processes is required to ensure sufficient accuracy is achieved. All too often, subject matter experts are diverted from core business activities to assess exactly how particular regulations affect specific business processes and controls.

Overall, there is a need for a systematic, standardised approach and a suitable governance structure, underpinned by a technical architecture that is flexible and fit-for-purpose.

A well-planned and ongoing regulatory change management process should include a framework that allows for ongoing change and facilitates a strategic approach that is less costly and disruptive than tactical workarounds.

A crucial element of a robust regulatory change management process is to ensure all records and documentation can be accessed from valid sources. Managing regulatory documents successfully requires a dedicated regulatory document management system that facilitates the automated extraction of relevant documentation from multiple sources. This system will allow documents to be tagged and tracked in accordance with a given taxonomy. Furthermore, firms need to examine how regulatory documents are approved and how impact assessments are carried out. A strategic system should be cross-functional and cross-regional. Having a robust impact assessment will empower a financial institution to make well informed cross-functional decisions on how to implement complex regulations.

Once the document containing the hierarchy of regulatory changes has been accepted and is assessed for materiality, an analysis of what the

document relates to and how it impacts the firm's processes and controls need to be completed. This analysis serves as a regulatory 'rule mapping' exercise that drives specific compliance requirements defined by a particular function in the organisation. A dedicated team of experts that consistently undertakes and performs this task will be able to complete the task to a high quality and in the shortest possible time.

## The need for a governance structure

In many financial institutions, individual business units or functions manage regulatory change management programmes autonomously. This federated model works best if a specific change only affects that particular part of the organisation. However, current ongoing waves of regulation are directed at the entire enterprise and require a more centralised governance model.

An optimal governance structure should be designed to promote clear lines of communication, transparency and traceability. This will help establish accountability, ownership and responsibility throughout the organisation and facilitate an active engagement with the relevant regulatory bodies.

The regulatory challenge is about creating a central source of regulatory knowledge and information. The creation of a 'regulatory dashboard' is the most effective way of achieving this goal.

A successful strategic regulatory change management programme will achieve an holistic view of all inbound regulations and demonstrate how they affect the entire organisation. A regulatory dashboard will help visualise this impact, enabling drill-downs into

the specific areas that are affected. In this way financial institutions can remove information siloes that pose an obstacle to strategic compliance.

Once a suitable dashboard and reporting framework have been created, it should be possible to identify key performance and risk indicators that will demonstrate to auditors and regulators the level of compliance that the organisation has with a particular regulation. The dashboard should provide functionality that is configurable, so that alerts are created on a daily basis when the organisation is not compliant – this then becomes a powerful tool not only to demonstrate compliance, but also to keep a full audit history.

There is no universal solution for regulatory change management. All financial institutions are at different stages of maturity with their specific compliance programmes. However, we believe that the time is now right for a new approach that harnesses the power of proven technology to address common issues.

A regulatory change management programme is not simply about regulatory compliance; and this is where a different mind-set is needed from financial institutions. A change management programme delivers much more than mere compliance. A well designed programme can help financial institutions become more confident and responsive to new business opportunities, and help achieve a permanent reduction in compliance costs. Regulatory compliance is a crucial business issue that is of vital importance to everyone within financial firms. A financial institution with a strategic view of regulatory compliance can confidently regard regulatory change as 'business-as-usual' and become more customer focused and profitable in the future.

**GFT** ■

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# BANKING REGULATION: CONNECTIVITY TO COMPLIANCE

It is now a reality that entity data acquisition and its management is central to the efficient operation of capital markets and is fundamental for financial institutions' risk management, customer service and regulatory compliance. The increase in volume and complexity of the data and the advent of solutions such as Customer Lifecycle Management platforms, managed services and entity data utilities, has now created a large and multifaceted ecosystem of challenges and capabilities that need to be assessed, contextualised, understood and addressed. Firms that wish to put in place capabilities to overcome the challenges they face, need to undertake both significant current state analysis and strategic planning based on an informed assessment of a future, international, and operating context.

## Operational Issues identified

In our experience, the operational issues in the client lifecycle and entity data management space usually encompass: a combination of manual processes / no automated workflow, ad hoc application of policy, no audit trail of either data or policy implementation, inaccurate or missing data, lack of system integrations (no STP), and poor engagement and understanding

between critical teams across business lines and geographies.

To make things more piquant, interwoven with these already challenging situations are the actual data management tasks of:

- Obtaining and maintaining entity identifiers (LEI, SWIFT BIC etc.)
- Knowing and interpreting global regulations that require entity data
- Sourcing core entity and corporate hierarchy data
- Managing disparate approaches to entity data management within the firm
- Dealing with entity data quality issues
- Articulating the benefits and business opportunities of strategic entity data management

A subset of these issues, yet a large proportion of the difficulties, lies in the variety of regulations themselves and these need an exposition all of their own.

## Regulations:

As noted above, a focal point of entity data management is the need for banks to remain compliant with the many regulations that now govern their global activities. Across geographies, different regulatory approaches have been taken to

address similar market issues; resulting in areas of both inconsistency and significant overlap in their demands. This situation has increased the challenges for firms who operate cross-borders, and as complex as the landscape already is, the market view is that the regulatory scenery will continue to evolve; most likely increasing differences for the foreseeable future.

It is key for firms to work now, to be in a position to respond flexibly as the situation develops. A quick look at some of these regulations gives us a headline list:

- OTC Derivatives – Dodd Frank Act (USA) and the European Market Infrastructure Regulation.
- Tax – Foreign Asset Tax Compliance Act (USA) and the global Common Reporting Standard.
- Anti-Money Laundering – The European Anti-Money Laundering Directive IV and the Financial Crimes Enforcement Network Customer Due Diligence in the USA.
- Data Quality and Privacy – The Basel Committee on Banking Supervision 239 and European Union General Data Protection Regulation.
- Market Oversight and Abuse – Markets in Financial Instruments Directive II and Market Abuse Directive / Market Abuse Regulation.

- Management Responsibility – Senior Managers’ Regime (UK).
- Insurance and Asset Management – Solvency II, UCITS and AIFMD.

## Solutions:

Clearly in an age where it is imperative that firms have access to trusted data for use in their Know Your Customer (KYC) and Anti Money Laundering (AML) and many other regulatory compliance processes, the ability to use data integrated directly into your workflows allows firms to:

- Create speedy and accurate compliance decisions
- Automate data collection processes
- Reduce the number of resources required to execute compliance processes
- Provide support for the management of risk
- Build customer satisfaction and avoid losing potential business

With these numerous benefits, connectivity and integration are completely central to the successful use of internally or externally sourced data. Conversely, without integration capabilities, any firm that has access to even the very best data content will never fully realise its practical utility; unless in the first instance it is able to connect to the data (get it), and secondly, integrate that same data (distribute it) into the business processes of the firm.

Industry leaders have defined integration as, “discovery, cleansing, monitoring, transforming and delivery of data from a variety of sources.” Utilising connectivity through application programming interfaces (APIs) and internal integration capability, Onboarding and Client Lifecycle Management (CLM) platforms provide the solution; exchanging data with locations both inside and outside organisations. Data can now be collected from a growing number of external sources and turned into relevant information that firms would find difficult to create, or would have had to obtain and manufacture manually. Such platforms assist with the ability to integrate and use publicly available data collected and managed by others to further enhance an organisation’s KYC / AML knowledge and required operational data sets.

In our experience we have noted that many business processes also require an assemblage of data from different sources;

either internal, external or a combination of both. This means that after initial acquisition, the need for data aggregation capability comes into play as well. Combining information from various sources into something useful is the primary purpose of an aggregation capability. As both a technical competence and a business process, this is about efficiently managing data and making it available to those who need it, in a form that they need it in. Tools that automatically produce composite records comprised of the most recent and most favoured data chosen from all contracted data sources are therefore foundational.

Additionally, per the concept of a Satnav that shows you how to transit the road system from where you are to where you need to be, data mapping for integration is also often necessary. In an integration context, mapping is the process of defining the source and destination of data, in addition to the transformations that need to be performed on the data, as it is moved between source and destination.

Avoiding a situation of “data, data everywhere, nor any value gained”, data connectivity and integration are indispensable, behind-the-scenes enablers, which assist both critical and valuable business activities in organisations. For maximum value, we have also learned that data needs to be transformed and re-purposed, not just moved from A to B. In nearly every business dimension it is now imperative that we cater for a working world where aggregated, synchronised, current and quality-assured compliance and operational data is delivered daily.

## Conclusion

Because financial services firms don’t want to re-engineer their business processes to comply with the constraints of a software solution, the required CLM platform is by explicit design a flexible modular platform; where end user firms are able to invest in the elements of the platform that solve their specific business and compliance needs. It follows then that the vendors of such a platform also have considerable data management, integration and implementation experience. This experience enables the vendor to work with clients; to review data and regulatory policies, define strategies, and develop solutions, ensuring connectivity to compliance in the current regulatory environment.



## Mark Bands

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Mark has 19 years of experience in the financial services sector (Business, Operations and Information Technology). Having worked directly for (or on projects for) financial institutions in fourteen different countries, Mark has created a distinct professional profile in the business information management space. He has a unique blend of cross-disciplinary skills; having worked with financial information, information systems, governance and strategic change management and banking operations. With an established global network, Mark is internationally recognised. He is regularly sought to provide commentary for trade publications, input into research, and is recurrently invited to speak at data management conferences.



Steve Edkins,  
CEO at FusionExperience

# AS THE REGULATOR'S PENDULUM SWINGS, ASSET MANAGERS MUST LOOK TO THE FUTURE

Moving into the summer of 2016, the Financial Conduct Authority (FCA) is finalising its review of the UK asset management industry in order to determine whether there is enough competition within this sector. As a result, asset managers in the UK are facing increasing pressure to improve transparency and ensure their IT systems are compliant with the latest regulatory requirements.

Fundamentally, the FCA wants asset managers to ensure that their investment strategies are clearly disclosed to customers and to make sure each strategy treats investors fairly. One serious area of concern is the lack of transparency around costs and value for money in monitoring perfor-

mance and conflicts of interest. Moreover, the way in which asset managers control costs on behalf of consumers is also under scrutiny.

A key problem here is the asset management industry's chronic inability to deconstruct massive amounts of data that flow through firms on a daily basis. With asset management now a significant part of the UK economy, it is important for this aspect of a firm's business to stay ahead of the curve. As such, the FCA has highlighted the importance for asset management firms to develop the technology side of their business, which means that organisations will need to rectify this issue quickly, before the regulator comes knocking.

## Current issues with big data

Regulation aside, asset management is an industry where successfully managing data is essential to success. Not being able to harvest this information could lead to significant issues such as large fines, regulatory sanctions and significant reputational damage down the line.

There are several issues that asset managers face when trying to tackle massive amounts of data. First, the majority of data – such as images or call recordings – is unstructured. Asset management firms therefore need to start by capturing this and other forms of information and collating and indexing this Big Data thus converting

it into Smart Data which is usable within their new business solutions. Once this information is centralised and indexed, it will be much easier to make sense of this data and use it to provide real business value within a compliance based system, used with a FCA regulated environment.

As an industry, asset management is currently at a point where it understands the benefits of customer data, but is still struggling to process the large volumes of information generated. Some information, such as client details, product rates and business forecasts, enters the business in a structured form. However, the rest of the data will be in the form of Big Data, visualised as a cloud of structured and unstructured information from which it is difficult to extract even the most basic meaning.

This disconnect is a significant problem for most firms. Large amounts of unstructured data make it impossible to extract real value from the various levels of knowledge and wisdom available across different areas of the business. As a result, asset managers need to develop an approach that combines all the different forms of information available, providing a complete view of the whole operation and turn the Big Data into the Smart Data business solution.

The final data challenge is gathering actionable insights from this data. It is all very well having this information to hand, but it is crucial to use it in a way that actually benefits the business. Gaining a better understanding of data will help put asset managers ahead of the curve and pave the way for a more efficient marketplace. Successfully rectifying these issues will also allow asset managers to formulate targeted strategies that address problems or opportunities as they emerge, thereby allowing firms to become proactive, rather than reactive.

### Why use a cloud-based solution?

Cloud-based Big Data products producing Smart Data would tackle some of these data issues head on, and also, if applied correctly, would solve the issues of transparency with customers and investors. All the information that asset managers would need could then be delivered via the cloud and accessed through a secure online portal. This way, companies would gain real time access to hierarchy relationships,

any funds the client has invested in, and sample investment opportunities – securely all in one place at one time.

A Smart Data solution would enable firms to measure their environmental, social and governance risk of various investments. This will not only help to reassure the FCA that they are operating in line with their investors' expectations, but will also ensure compliance with the United Nations Global Compact, which encourages businesses worldwide to adopt sustainable and socially responsible policies.

By using a Smart Data solution delivered via the cloud in this way, it is possible to eliminate the gap between sensing and responding to movements within the market, which will enable asset managers to deliver much greater efficiency for their clients.

### Conclusion

The FCA is expected to release its findings in the summer of 2016, before publishing a final report by early 2017. These findings will expose these areas of concern within the UK asset management sector, and will no doubt leave their mark on an industry that is being hindered by complex legacy systems and outdated processes.

As a result, firms will be forced to look toward the development of their in-house systems. However, it could be too late to make significant changes. Planning for the integration of legacy systems with cloud delivered Smart Data solutions must therefore begin now.

Asset Management Companies will have concerns with regards to future regulatory requirements as well as any move away from legacy systems onto the next generation of technology. Cloud based systems are both easily scalable and require no capital expenditure. This scalability and elasticity is crucial when considering the large volume of data being processed to create Smart Data out of Big Data. A correctly used Smart Data solution will improve both the transparency between firms and their customers but will also ensure asset managers can fully satisfy any FCA regulatory requirements.

It is therefore time for firms to bite the bullet and begin the process of integrating next-generation cloud delivered Smart Data solutions which are mobile enabled, so we can be sure that Britain remains the largest asset management market in Europe.



## Steve Edkins

*CEO at FusionExperience*

Steve has over 25 years' experience within IT and Business services, and is one of the founding directors of FusionExperience, holding the position of CEO and Business Development & Marketing Director of FusionExperience. He has held senior positions in large multi-national corporations. In his previous role as Deputy CEO of DST International (now DST Global Solutions), Steve led over 1500 employees and was responsible for global service revenue of over \$150 million across the UK, Europe and Middle East operations. In this role Steve was also responsible for all International M&A activity. Steve held other executive positions at Sherwood Computer Systems, Premier Systems and Drexel Burnham Lambert.



# Wolters Kluwer warns Dutch firms not to delay when it comes to XBRL

As Dutch readers of Financial IT no doubt know, The Dutch National Bank (DNB) will now require institutions under its jurisdiction to begin producing financial reports in Extensible Business Reporting Language (XBRL). And impacted firms are being warned not to delay when it comes to implementation of this new technology standard.

XBRL is a global standard for exchanging business information used around the world in more than 50 countries for transmitting information of all sorts that has gained worldwide acceptance inside and outside the financial services industry. When the requirement is fully implemented – expected on 1st October this year – Dutch banks will join their peers in roughly 30 European countries, as well as the United States, Japan, China, Australia and much of Latin America, in adopting XBRL.

Foot dragging by the DNB is the chief culprit in the belated introduction, and it may have produced a sense of inertia among institutions as their counterparts nearly everywhere else have passed them by. Now that Dutch firms have been ordered to join them and the clock has started toward implementation, they would be wise not to delay further. XBRL presents challenges but also tangible opportunities for organizations that embrace the new format.

To make the most of XBRL and prepare for the rollout, which will be executed in stages over several months, firms must avoid any

temptation to minimize the scope of the task at hand. They must take a comprehensive approach, understanding the format in all its complexity, and grasp that the conversion to XBRL represents more than a cosmetic bookkeeping adjustment. It is a fundamental change in how they compile information and communicate with regulators.

## XBRL – background

XBRL itself is nothing new. It was created in the late 1990s, with a substantial amount of the development credited to Charles Hoffman, an American accountant. The reporting standard has been in use for at least a decade by companies around the world in numerous industries.

Financial systems in most major countries have implemented XBRL, at least partially. The catalyst for its adoption across Europe is the Capital Requirements Directive enacted in 2013 by the European Parliament. CRD IV, as it is known, calls for standardized financial reporting procedures. XBRL satisfies the European Banking Authority's (EBA) interpretation of the requirement.

Dutch financial institutions seem to be convinced of the merits of XBRL. The country's largest bank, ING, for instance, has begun to offer more advantageous loan terms for small and medium-sized businesses that file reports in the format and has said that it will require existing and prospective customers to do so beginning in 2017.

The DNB has not been as eager to adopt XBRL due to concerns about the ability to integrate reports into its existing data collection system, as well as to lingering mistrust over the quality of data produced using the standard. Pressure from the EBA to deliver reports in XBRL and the DNB's need to convert files into the format at last persuaded the central bank to conform.

This is, in fact, a fortuitous time for firms to implement the requirement, as it coincides roughly with the introduction of several other regulatory mandates, including additional liquidity monitoring called for in CRD IV; the European Commission's 2014 Delegated Act covering how items related to firms' liquidity coverage ratios are reported, as well as the European Central Bank's (ECB) Analytical Credit Dataset project, or AnaCredit. Though still a work in progress, AnaCredit involves the collection and reporting of numerous additional bits of information about each credit on a firm's balance sheet. While the mechanics and timing of these new items on organizations' to-do lists may not be tied that closely to the adoption of XBRL reporting, it should be more efficient to carry out a wholesale change to their systems rather than undergo continual rounds of tinkering.

## Seizing an opportunity

With the migration to XBRL at hand, companies would do well to commit to it fully and promptly and not just view it as

yet another regulatory burden. XBRL means extra work, but the standardization and rigor inherent in putting such an intricate digital reporting format in place should ensure that regulators and institutions, including ones with operations across borders, are all on the same page – literally. The shift to XBRL ultimately should save money and time for Dutch banks by allowing them:

- To send data faster within the organization and to and from regulators.
- To reduce the likelihood of reporting errors.
- To follow similar or identical processing procedures in different countries.
- To send and receive the same files in the same way when dealing with the DNB, ECB and EBA.
- To use a standard reporting infrastructure, thanks to several of the factors above.

For all of its long-run benefits, adapting to the filing requirement could prove problematic for Dutch institutions that have relied for years on the DNB's simpler "Fill-in-the-blanks" form on the regulator's website. That means being well prepared, well in advance. Fortunately, firms will probably have no choice. XBRL is not suddenly going to become the Dutch reporting standard all at once in October. It will be implemented in a set of discrete steps, with monitoring, testing and potential tweaking following each one.

## A testing time

Testing will certainly be mandatory for all firms. They will have to successfully execute a series of tasks, each focused on a different aspect of XBRL reporting, under a range of scenarios. The idea is to ensure that institutions will be able to produce reports in the new format, check their validity and communicate the information to the DNB. The tests will become more complex as the process moves along.

First up is a connectivity test. This will involve logging on to the Digital Reporting Window – the successor to e-Line – on the DNB portal and uploading an XBRL file. Content is not important here. This is merely to verify that links are up and running and that data between firms and regulators can flow in both directions.

The next phase, to occur in July and August, will involve validation testing. Supervisors will check reports that firms submit in XBRL for errors and provide positive and negative feedback.

The final round of testing, foreseen for August and September, is essentially a dry run. Firms will have to submit error-free XBRL reports using data from the previous reporting period. It is important to reiterate, though, that the implementation process itself may not be error free; changes to the testing schedule, and to the testing itself, may occur as the DNB adjusts its procedures and as the EBA continues to make changes of its own.

The fluid nature of the timetable during implementation is not the only hurdle that organizations will have to clear before the anticipated benefits of reporting in XBRL start to accrue. Banks may have become spoiled by the simplicity of the e-Line system, for instance. XBRL will require more than keying in numbers on the DNB portal. Small firms, in particular, may find the new format a formidable obstacle, as the changes required to adapt to it may put a strain on their comparatively modest budgets. Their larger peers are more likely to have sufficient manpower, by contrast, and they already may be reporting in XBRL in some jurisdictions in which they operate.

But having the resources, human and financial, is not enough, even for large institutions. Specific expertise that permits XBRL instance files to be produced consistently without error for every part of the business is required, too. Even firms that generate XBRL reports in certain divisions in certain countries are likely to find that the relevant programs and systems do not travel as well as they might expect, factoring in diverse activities and multiple supervisory regimes.

When setting out to tackle the conversion to XBRL, the focus tends to be on data submission, the culmination of the reporting process. But companies, especially more complex ones that compile and transmit extensive, Byzantine reports, need custom-tailored XBRL software that can handle every facet of reporting along the way, including data collection and management of all systems of regulatory logic that may be encountered across business lines and geographic boundaries.

Programs also must be adaptable to new requirements originating with regulators or within a firm. As they navigate the implementation process, organizations may come to discover that adopting XBRL is more of a journey than a destination and that October 1st, 2016, is closer to the beginning of the journey than the end...



## Joost Roelin

*Director of Product Management Strategy  
Wolters Kluwer Financial Services*

Joost Roelin is Director of Product Management Strategy at Wolters Kluwer Financial Services, the leading worldwide provider of comprehensive compliance, risk management and audit solutions for the financial services industry. In this role, Joost applies the knowledge gained from over 15 years of experience focusing on banking architectures and macro- and micro-regulatory reporting topics to advise financial institutions around the world on best practices for compliance. He has previously held director level and management positions within financial risk management and regulatory reporting provider FRSGlobal, focusing on various global and specific local regulatory environments including The Netherlands, the UK, Belgium, Ireland, USA, Singapore, Japan, Hong Kong.

**Mohit Sinha,**  
Director of Digitalization, Wipro Digital

# Evolving in the face of disruption – the impact of technology on financial services



The financial services industry is more open than it has ever been. In recent years we have seen the first new high street bank in the UK for years and this has been followed by a series of new start-up, digital-only banks that are vying with traditional institutions for market-share. In addition to this, there has been a series of specialist fintech companies that have risen in recent years to compete in every financial market you can think of, from currency exchange, to invoice financing and peer-to-peer lending.

These are agile technology companies that are focusing on quality of service, competitive pricing and dealing with customers' real-time needs across a variety of channels. It's no wonder that traditional banks and financial services companies are concerned and looking for ways to develop the services of the future, increase customer engagement and differentiate themselves. With all this taken into account, we could be on the verge of an unprecedented transformation in the financial services industry.

However, for this to truly take place, the transformation needs to happen across the board with financial institutions, fintech companies and even regulators aligning together to focus on the interests of the customer. However, in such a competitive market where the needs and wants of customers are constantly evolving, there are questions over what is required to achieve this.

## Achieving the transformation

This transformation of the ecosystem won't come easily and will require action from all sides of the industry. First of all, banks must embrace the technological change that is happening and focus on collaboration and innovation. Many institutions are currently taking steps based on their business appetite combined with customer and competitive pressures – some bigger than others. However, it is important that all banks are open to experiment and work with third parties to drive change.

Fintech companies on the other hand, must keep doing what they do best and focus on innovation in the name of customer needs. They must not get distracted, move too quickly at the detriment of other factors (like security), or sail too close to getting on the wrong side of regulation. This brings us to the regulators themselves, who must play a crucial role in this newly evolved financial services market. They must provide enough freedom for innovation to take place, while also acting as key stakeholders to enable collaboration between financial institutions and fintech companies.

The bottom line is that fintech firms should not over-reach themselves and look to do everything alone. Many fintech companies will be better suited to playing the role of enablers of digitalized financial services rather than attempting to compete directly with the banks. True collaborations between both sides should then bring the best of both worlds together: the agility and experience of digital technologies with the scale and security of large banks – something that should also make the regulators happy.

## Overcoming legacy issues

While the threat to financial institutions from fintech is perhaps not severe yet, banks are feeling the pressure, particular with the advent and growth of technologies like Blockchain. One of the key challenges banks face, and this has been a challenge for a number of years now, is deriving value from the vast amount of unorganized, unplanned, and in many cases unwanted data they hold. The data problem, aside from perhaps legacy systems, is the major inhibitor to innovation and mobility in financial institutions. For collaboration with fintech to take place, banks will have to first accept this problem openly and address it in a systematic and holistic way. The user experience on the front-end is crucial when it comes to any innovation or new services, but if the back-end is sluggish it will not engage or attract customers, so this needs to be a focus for banks.

While banks have been constrained and focused on regulations in recent years, they have not been able to focus on these legacy data and system challenges. As a result, they must take a step back and look at core infrastructure and processes. When it comes to the back-end, they must look to optimise, automate, realign information architectures and apply cognitive intelligence. If the back-end is not nimble then any partnership with fintech will not be such an attractive proposition and this is where service providers and systems integrators come in, as they will be important trusted partners to facilitate this digital transformation.

While the imminent threat to traditional banks from financial technology is perhaps exaggerated, there is a definitive transformation occurring in the industry. However, many customers can be suspicious of new technology and certainly risk averse where their money is concerned, so fintech will need to develop further in terms of structure and regulation to be completely accepted. This is certainly achievable and if all parties can collaborate to move the industry forwards, this can only be good news for the customer. Either way, one thing is certain – banks that fail to evolve in the new ecosystem will struggle to continue to compete.

# Market Leading Fraud Risk Detection & Prevention Technology



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Real-Time Payments Fraud Detection for  
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Card  
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Effective fraud risk management requires a real-time, customer-centric approach. NICE Actimize provides proven solutions, which **reduce fraud losses, mitigate reputational damage, and increase operational effectiveness and efficiency.**

Profiled Vendor  
2015 CEB TowerGroup Enterprise  
Fraud Management Update

Category Leader  
2014 Chartis RiskTech® Quadrants,  
Enterprise Fraud Technology Solutions

Recognized Provider  
2014 Aite Enterprise Fraud  
Management Market Impact Report



**William Laraque,**  
Managing Director at US-International Trade Services

# E-COMMERCE PLATFORMS in Global Trade; An Explosion of Choice

Eric Schmidt of Google is fond of saying that the Internet is an instrument of liberation. When it comes to e-commerce and cross-border trade, the Internet also represents for global consumers, an explosion of choice.

Mitch Barns, the CEO of Nielsen, wrote a very interesting article in *Forbes Magazine* which I reference as follows:

**Mitch Barns, Contributor *Forbes***

*E-commerce is claiming an ever-larger share of commerce in more and more regions. One reputable source says that, for 2014, e-commerce was 8.2% of retail in Asia-Pacific; 6.7% in Western Europe; and 6.3% in North America. By 2018, these figures are forecasted to be 18%, 10%, and 9%, respectively. Now, however, a new story is beginning to unfold: the growth of cross-border e-commerce.*

*Cross-border e-commerce doesn't yet get much popular attention, because it's currently still small. You'll get 150 times the results on Google for "regular" e-commerce as for the cross-border kind. But it will be profoundly important, because cross-border trade's cultural effects do much more to change the world than in-country trade does.*

*How prevalent is cross-border e-commerce today? In a recent online survey, we discovered that 57% of respondents in 24 countries in six continents had shopped from an overseas site in the last six months, with some country numbers well into the seventies. I'm betting these are higher numbers than many realize – in particular, many Americans, who get most of what they want at home.*

*Meanwhile, connectivity is growing explosively everywhere. About three billion people have Internet access today. 2020 estimates vary from about four billion to as high as 7.5 billion. Even at four billion, penetration growth of 33% combined with even modest per-person growth will be transformative. A recent report suggests the global business-to-consumer cross-border e-commerce market will reach \$1 trillion in 2020.*

*Companies should jump on this. Many bricks-and-mortar companies lost ground to pure-play e-commerce companies by being slow to develop in-country online strategies. They should not miss the international boat, too, even if it means working hard on in-country and cross-border e-commerce in parallel.*

*It's hard to say precisely how the cultural effects of cross-border e-commerce will play out, but they will likely be considerable.*

*The first wave of globalization, from the mid-19th century to World War I, was a time of Western dominance. So Anglo-Saxon political and cultural ideas followed trade from West to East. It won't be so simple this time. China's e-commerce market appears to have moved into first place two years ago, and China Internet users double the entire U.S. population. So we will see plenty of movement from East to West. Most likely, cultural ideas will diffuse out from many different centers of economic activity.*

*Whatever happens, culture will follow trade, as it always has. But what will happen to trade?*

Some thirty years ago, Ted Levitt, who popularized the word “globalization”, announced in *The Harvard Business Review* that the day of the multinational corporation was over, and that the global corporation would operate “as if the entire world were a single entity,” selling the same things in the same way everywhere.

To some extent, he was right. There are brands whose names are recognized all over the world – Apple, Microsoft, Coca-Cola, IBM – that do sell essentially the same product worldwide. But even *Fortune’s* top-500 “global brands” represent at most just over one percent of publicly-traded companies worldwide, and not everyone listed has name recognition that would allow them to sell the same products everywhere.

You’d think e-commerce would promote this process, and we’d finally see a global market in which the world’s largest companies grow massively as they access vast numbers of additional consumers, including the hundreds of millions in China’s lower-tier cities.

Not necessarily. You see, in a bricks-and-mortar world, scale wins because it drives down unit-costs. It’s also the key to distribution: Just a few years ago, selling all over China required big investments only scale players could afford. Today, a very inexpensive storefront on Alibaba’s Tmall Global allows just about any company anywhere to deliver products to Chinese consumers in days.

Absent political barriers to digital trade, then, cross-border e-commerce is likely to be a great equalizer. Just as the physical process in which Western multinationals headed East has already been disrupted by Chinese “local giants” that matched the MNCs on Chinese ground and are now headed in the other direction, so e-commerce is likely to give birth to players selling across borders in every direction. As for culture, Western ideas heading east might well meet Eastern ideas and influences heading in the other direction. In time, similar effects are likely on the world’s North-South axis.

Who will be the winners in this global contest? As noted, the world’s largest companies may be able to leverage the brand recognition they have built up over years, and behave like “global” companies for a good while to come. But new would-be-global players are likely to find a more crowded and difficult path.

We’ve all seen how quickly Internet businesses can grow at home. Cross-border e-commerce multiplies the potential as it multiplies the size of the potential market. Scale barriers come down. Markets become more competitive. Greater choice emerges – and more power flows to the consumer.

There is a considerable irony here. Previous waves of globalization brought only a limited number of Western companies to developing countries, because of the complexity and investment required. So a relatively

small number of big Western companies and their brands had an outsized influence on consumers around the world. This time, as cross-border e-commerce lowers barriers everywhere, the explosion of choice will put consumers everywhere in charge. As they purchase at will from the biggest shopping mall the world has ever seen, they are likely to put their local stamp on the companies that seek to serve them. This next globalization of commerce may be the most local wave yet.

End of Mr. Barns' article.

## What remains to be done?

- Platforms must be created which provide all of these services (for US enterprises in this case):
- Finance of cross-border trade must be integrated into the e-commerce platform ecosystem. This can be done by mitigating risk and financing trade as part of the platform-integrated offerings or by strategic alliance between platforms, banks and financial institutions. Tradeshift Holdings, now based in San Francisco, has made a start by providing e-commerce platform services to buyers and sellers in 35 countries. Financing is provided by a strategic alliance with HSBC and Amex. There are some 200 countries, so the industry has a long way to go. Compliance with the laws of the exporter’s country and those of the target markets must be complied with. Compliance with the full regime of export and import controls must be intelligently integrated into the e-commerce platform and its secure portals.

Amazon is experimenting with financing also. Amazon Business has launched a beta whereby lines of credit of a few hundred thousand dollars to one million are being offered businesses using Amazon Business. Hundreds of thousands of products on Amazon can be traded using the Amazon platform. Financing of cross-border transactions and insuring political and commercial risks have yet to be integrated into cross-border e-commerce platforms.

- Cybersecurity – the e-commerce platform must provide secure portals in order to safe guard the privacy, trade secrets and intellectual property of its clients. I have worked with Michelin and other notoriously private corporations. They are not about to join e-commerce sites which do not scrupulously protect their IP, despite the global marketing potential.

In any event, this is not your father’s or mother’s global trade.

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# DEALS

## [Visa Acquired Visa Europe](#)

*Date: 21.06.2016*

Visa reports the completion of its acquisition of Visa Europe Ltd. The combined, global company provides digital payment products, services and processing to about 17,100 financial institution clients and partners, 40 million merchant outlets, and 3.0 billion Visa cards worldwide. Visa-branded cards and payment products enable approximately \$6.8 trillion in global payments volume annually. In addition, Visa Inc.'s Board of Directors (the "Board") announced today that it appointed Gary A. Hoffman, CEO of Hastings Group, as a Board member of Visa Inc.

## [Citi acquired Costco U.S. Co-brand Card Portfolio](#)

*Date: 20.06.2016*

Citi today announced it has successfully completed the acquisition and conversion of Costco's U.S. co-brand credit card portfolio from American Express. Citi acquired in excess of \$10.5 billion of credit card receivables. As of today, the new Costco Anywhere Visa Card by Citi and Costco Anywhere Visa Business Card by Citi are available exclusively to Costco members. The long-term co-brand credit card program agreement between Citi and Costco was originally announced in March of last year. Citi does not expect the impact of the acquisition and conversion to be material to its earnings in 2016.

## [Microsoft Reports Acquisition Of LinkedIn For \\$26.2 Billion](#)

*Date: 14.06.2016*

Microsoft Corp. (Nasdaq: MSFT) and LinkedIn Corporation (NYSE: LNKD) on Monday announced they have entered into a definitive agreement under which Microsoft will acquire LinkedIn for \$196 per share in an all-cash transaction valued at \$26.2 billion, inclusive of LinkedIn's net cash. LinkedIn will retain its distinct brand, culture and independence. Jeff Weiner will remain CEO of LinkedIn, reporting to Satya Nadella, CEO of Microsoft. Reid Hoffman, chairman of the board, co-founder and controlling shareholder of LinkedIn, and Weiner both fully support this transaction. The transaction is expected to close this calendar year.

## [Markit To Acquire Prism Valuation](#)

*Date: 20.06.2016*

Markit, a leading global provider of financial information services, today announced that it has agreed to acquire Prism Valuation a leading provider of independent valuation and risk analysis of derivatives and structured products. The acquisition will complement Markit's leading Portfolio Valuations service and enable Markit to offer customers enhanced coverage of complex OTC derivatives and structured OTC products. It will also expand Markit's customer base among regional banks and structured product issuers.

## [Broadridge Acquires DST's North American Customer Communications Business](#)

*Date: 16.06.2016*

Broadridge Financial Solutions, Inc. has entered into a definitive agreement to acquire the North American Customer Communications ("NACC") business of DST Systems, Inc. (NYSE:DST) for \$410 million in cash, subject to customary working capital and other closing adjustments. As the largest transactional printer in North America, NACC is a leading provider of customer communication services including print and digital communication solutions, content management, postal optimization, and fulfillment. The transaction is subject to customary closing conditions and is expected to close in July 2016.

## [Symantec To Acquire Blue Coat For \\$4.651 Billion In Cash](#)

*Date: 13.06.2016*

Symantec and Blue Coat, Inc. report that they have entered into a definitive agreement under which Symantec will acquire Blue Coat for approximately \$4.651 billion in cash. The transaction has been approved by the Boards of Directors of both companies and is expected to close in the third calendar quarter of 2016. Greg Clark, Chief Executive Officer of Blue Coat, will be appointed Chief Executive Officer of Symantec and join the Symantec Board upon closing of the transaction. Blue Coat is the #1 market share leader and share gainer in Web Security with a widely recognized portfolio of integrated technologies serving as a trusted platform to deliver Cloud Generation Security to more than 15,000 customers worldwide.

# MANDATES

## ASX Chooses Digital Asset To Expand Distributed Ledger Technology In Australia

**Date:** 22.06.2016                      **#Blockchain**  
**Provider:** Digital Asset Holdings  
**Client:** ASX Limited                      **Mandate value:** Undisclosed

ASX Limited (ASX) today announced that it has selected US-based firm Digital Asset Holdings, LLC (Digital Asset) to develop solutions for the Australian market utilising Distributed Ledger Technology. ASX has joined 12 other global financial services leaders and made a minority investment in Digital Asset. ASX has paid A\$14.9 million to acquire a 5% equity interest in Digital Asset, fund an initial phase of development, and acquire a warrant that will give ASX the right to purchase further equity and appoint a director to the board.

## Eastern Bank Taps nCino To Drive Growth Through Technology

**Date:** 21.06.2016                      **#Banking, Infrastructure**  
**Provider:** nCino  
**Client:** Eastern Bank                      **Mandate value:** Undisclosed

nCino announced that \$9.9 billion-asset Eastern Bank has selected its Bank OS to increase efficiency and streamline the overall lending process. Eastern Bank, the largest and oldest mutual bank in the United States, is dedicated to flawless execution and speed when it comes to lending. As Eastern Bank continues to grow, nCino's Bank Operating System will serve the bank well with a single, secure cloud-based platform that centralizes essential loan origination capabilities with customer relationship management (CRM), business process management, and business intelligence and reporting.

## Crestone Benefits From Avaloq Banking Suite

**Date:** 17.06.2016                      **#Banking**  
**Provider:** Crestone  
**Client:** Avaloq                              **Mandate value:** Undisclosed

Crestone has opened its doors this week with the newly implemented Avaloq Banking Suite. Crestone uses the Avaloq Banking Suite's fully integrated back, middle and front office banking functionalities combined with customised business solutions as the IT backbone of the Company. Peter Scott, General Manager Asia Pacific for Avaloq, says, "Crestone was one of the first users of a next generation model bank solution based on the Avaloq Banking Standards, which delivered excellent results, reducing implementation time to under nine months."

## Simcorp Dimension Selected By Exane

**Date:** 22.06.2016                      **# Derivatives and OTC Derivatives**  
**Provider:** Simcorp  
**Client:** Exane                              **Mandate value:** Undisclosed

SimCorp, a leading provider of investment management solutions and services for the global financial services industry, announced that Exane has selected SimCorp Dimension to support its middle and back-office operations for listed and OTC derivatives. Based in Paris, Exane is an independent investment firm with three main lines of business (Brokerage in Cash Equities, Derivatives, and Asset Management), which services a diversified European and global client base. After a rigorous selection process including a thorough Proof of Concept, SimCorp Dimension stood out as the solution best suited to support Exane's current and future business needs and strategy.

## Welch State Bank Selects Fiserv's Precision Platform

**Date:** 20.06.2016                      **#Banking**  
**Provider:** Fiserv  
**Client:** Welch State Bank                      **Mandate value:** Undisclosed

Fiserv, Inc., a leading global provider of financial services technology solutions, announced today that Welch State Bank, a \$227 million asset financial institution based in Welch, Oklahoma, has selected the Precision® core account processing platform and a host of integrated solutions from Fiserv. Executives at the bank conducted their search for a new account processing platform with a goal of reducing manual processes, minimizing the number of technology vendors and enabling a better customer and employee experience. The platform also needed to be able to support the bank's continued growth.

## Corvil Assists Exane BNP Paribas In Electronic Trading

**Date:** 17.06.2016                      **#Trading Systems**  
**Provider:** Corvil  
**Client:** BNP Paribas                      **Mandate value:** Undisclosed

Corvil, the leading analytics company for financial markets, today announced that Exane BNP Paribas, a European broker dealer, is using the Corvil platform to assure the strength and performance of its electronic trading businesses and to support compliance with upcoming regulatory requirements such as MiFID II. ExaneBNP Paribas' decision to integrate Corvil is part of a strategy to deliver a best of breed trading platform, and has enabled achieving a near-100% hit rate within their SuperSOR Smart Order Router.

# PEOPLE MOVES

## Edings Thibault Joins Broadridge As Head Of Investor Relations

*Date: 22.06.2016*

Broadridge Financial Solutions, Inc has appointed W. Edings Thibault as Vice President and Head of Investor Relations. Mr. Thibault joins Broadridge from MSCI Inc., a provider of financial data and technology services, where he was also Head of Investor Relations and most recently, Global Head of Business Intelligence. Prior to joining MSCI in 2009, Mr. Thibault worked at Indus Capital, a New York-based hedge fund and as a senior equity analyst at Morgan Stanley & Co., where he covered the telecommunications, paper, packaging and steel industries.

## ACI Worldwide's Senior VP Joins Executive Board Of Nexo

*Date: 21.06.2016*

ACI Worldwide, a leading global provider of real-time electronic payment and banking solutions, today announced that Paul Thomalla, ACI's senior vice president for Global Corporate Relations, has been elected as a member of the executive board of nexo, the international association that develops and promotes open standards for card payments. ACI has been at the forefront of championing the nexo standards, which aim to replace a system of individual country protocols related to card payment standardization.

## Intellect IGTB Welcomes New Head Of Digital For Corporate Banking

*Date: 21.06.2016*

iGTB, the organisation behind the world's first comprehensive global transaction banking solution, has appointed Herber De Ruijter as its new Head of Digital, responsible for Product Strategy and Development of Intellect's Digital offerings for Corporate Banking. Herber joins iGTB from solutions provider Backbase, where he was responsible for product development as well as leading the company's American business and operations.

## Capgemini Consulting Enhances Its Banking Team In The UK With New Hire

*Date: 15.06.2016*

Capgemini Consulting, the global strategy and transformation consulting arm of the Capgemini Group, has today announced the appointment of Patrick Vance as a VP in the UK Financial Services team. Focusing on Regulatory Risk and Compliance, Patrick will report into Kevin Simmons, VP and UK COO of Financial Services. In his new role, Patrick will work with Capgemini Consulting's banking, insurance and capital markets clients to help them understand their regulatory and compliance obligations, manage and monitor their adherence to these obligations, and remediate issues as they arise.

## Wells Fargo Securities Welcomes Alicia Reyes As Head Of EMEA

*Date: 07.06.2016*

Wells Fargo Securities (WFS), the capital markets and investment banking business of Wells Fargo & Company (NYSE: WFC), announced today that Alicia Reyes has been named the new head of Wells Fargo Securities in Europe, Middle East and Africa (EMEA). She is based in London and jointly reports to Walter Dolhare, head of Wells Fargo Securities' Markets Division, and Rob Engel, head of Wells Fargo Securities' Investment Banking and Capital Markets. Prior to joining the company as head of WFS EMEA, Reyes was a founding partner of Olympo Capital, an independent merchant banking firm serving leading private equity and hedge funds in Europe.

## Tristan Blampied Joins Pelican As Senior Product Manager

*Date: 06.06.2016*

Pelican is delighted to announce the appointment of Tristan Blampied as Senior Product Manager for the firm's innovative suite of transaction banking, regulatory compliance and corporate payments solutions. Tristan joins from the Payments and Cash Management business at HSBC, where most recently he managed MPS, the market leading bank/vendor collaboration product initiative. Prior to this he was a Business Analyst and Senior Project Manager with Simplex Consulting/Bottomline Technologies.

Financial 

# **Financial Technology Buyers' Guide**

**June 2016**



Belpay offers comprehensive and cost-effective solutions to commonly experienced administrative challenges in support of international trade. Our tailor-made services support your company's supply chain management, corporate treasury and various functions related to payment services in international transactions. Through extensive technical and financial research we are able to suggest to enterprises the latest and most advanced means of managing cross-border transactions. Belpay conducts a range of traditional and novel business-to-business payment support services, primarily for mid-size enterprises involved in international trade across the European Union.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Private Company	Contact	Francis Chlarie
Annual turnover	Undisclosed	Job Title	Director
Number of Customers Total	Undisclosed	Contact address	Kardinaal Mercierstraat 74, 8000 Brugge, Belgium
Number of Employees	Undisclosed	Telephone number	+32 475 61 61 71
Inception	2013	Email Address	francis.chlarie@belpay.be
Geographical coverage	Europe, Americas	Homepage address	www.belpay.be



China Systems is the leading Trade Services Solutions vendor in the world, with offices throughout Europe, the USA, Asia, and the Middle East. Established in 1983, China Systems has gained extensive experience in international banking systems by exploiting the functional adaptability and development capabilities of Eximills, its renowned toolkit for Trade Services within the banking industry.

Apart from our rich technical heritage, we also offer true global product implementation as well as support and maintenance services. We have worked with banks to implement our products throughout their global branch network.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Private Company	Contact	Pedro Ramos
Annual turnover	Undisclosed	Job Title	Deputy Managing Director, China Systems USA and Canada
Number of Customers Total	+200	Contact address	90 John Street, Suite 306, New York, NY 10038 USA
Number of Employees	Undisclosed	Telephone number	+1 (212) 349-2565
Inception	1983	Email Address	pedro@chinasystems.com
Geographical coverage	Europe, the USA, Asia, and the Middle East	Homepage address	www.chinasystems.com



Founded in 1976, CGI is a global IT and business process services provider delivering high-quality business consulting, systems integration and managed services. With 68,000 professionals in 40 countries, CGI has an industry-leading track record of delivering 95% of projects on-time and on-budget. In the Financial Services industry, CGI professionals work with more than 2,500 financial institutions including 24 of the top 30 banks worldwide. We are helping our retail and wholesale banking clients reduce costs, achieve strategic objectives and drive competitive advantage. As a demonstration of our commitment, our average client satisfaction score consistently measures higher than 9 out of 10.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Corporation	Contact	Penny Hembrow
Annual turnover	\$10 billion	Job Title	Vice-President, Global Banking
Number of Customers Total	Undisclosed	Contact address	Kings Place, 90 York Way 7th Floor, London N1 9AG, UK
Number of Employees	68,000	Telephone number	44 (0845) 070 7765
Inception	1976	Email Address	banking.solutions@cgi.com
Geographical coverage	Americas, Europe and Asia Pacific	Homepage address	www.cgi.com



Compass Plus provides proven software and services for financial institutions, including retail banks and payment processors across the globe that operate in complex and rapidly changing business and technology environments. Compass Plus builds and quickly implements comprehensive and integrated payment technologies that allow customers to increase revenue and profits, and improve their competitive position by implementing flexible systems that meet market demands. With hundreds of successful projects spanning card, account and merchant management, card personalisation, mobile and electronic commerce implemented in record breaking time, Compass Plus ensures its customers make the most of their technology investments.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Limited Partnership	Contact	Bethan Cowper
Annual turnover	Undisclosed	Job Title	Head of Marketing and PR
Number of Customers Total	Undisclosed	Contact address	9 The Triangle, Enterprise Way, NG2 Business Park, Nottingham, NG2 1AE, UK
Number of Employees	Undisclosed	Telephone number	44 (0) 115 753 0120 44 (0) 115 986 4140
Inception	1989	Email Address	b.cowper@compassplus.com
Geographical coverage	Global	Homepage address	www.compassplus.com



Established in February 2006, with the sole objective of delivering fast, agile and functional business software to the Investment Management sector, CYMBA Technologies, from its very inception has concentrated exclusively on the delivery of such products within the Front Office environment and has successfully delivered on this objective as evidenced by its ever increasing global customer base. The Company's detailed knowledge of Hedge Funds and Investment Management processes has enabled the development of leading edge Investment Management systems for Algorithmic Trading, Execution Management, Real-time Profit and Loss (CYMBA Athena IMS), and Compliance (CYMBA Centurion).

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Private Company	Contact	Karim Ali
Annual turnover	Over £ 1 Million	Job Title	Managing Partner & Co-Founder
Number of Customers Total	over 15	Contact address	Holland House,4 Bury Street, London, UK EC3A 5AW
Number of Employees	Less than 10	Telephone number	44 (207) 220 6561
Inception	2006	Email Address	kali@cymba-tech.com
Geographical coverage	UK, US & Asia	Homepage address	www.cymba-tech.com



essDOCS is a leading enabler of paperless trade, providing customer-led solutions that automate and accelerate trade operations & finance. essDOCS' flagship solution – CargoDocs – delivers significant value to the entire supply chain: enabling users to streamline processes, reduce working capital needs and risk, while improving collaboration, compliance and visibility across organisations. As of Q1 2016, Over 3,600 companies, ranging from 12% of the Fortune Global 500 to innovative SMEs, use essDOCS solutions across 72 countries in the energy, agriculture, chemicals and metals & minerals markets.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Nicholas Demetriou
Annual turnover	Undisclosed	Job Title	VP Marketing
Number of Customers Total	3,600+	Contact address	33-34 Rathbone Place, 1st Floor, London, W1T 1JN United Kingdom
Number of Employees	55	Telephone number	44 20 3102 6600 D6
Inception	2005	Email Address	adopt@essdocs.com
Geographical coverage	EMEA, Asia Pacific, Americas	Homepage address	www.essdocs.com



Since 1991 Diasoft has been providing cutting edge financial software solutions supporting all the aspects of retail, corporate and universal banking, treasury and capital market services, and insurance business. The company's main offer to the global financial market is FLEXTERA – a SOA-based software solution for front-to-back automation of financial services. Using the most advanced technologies to create its software products, Diasoft became one of the first companies having implemented SOA-principles in the banking solutions, which is attested by IBM Banking Industry Framework certification. The company is ranked in TOP 100 global financial technology providers and TOP 5 software vendors in Russia.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Sole proprietorship	Contact	Sergey Metelskiy
Annual turnover	2014 results: 69.2 Million Dollars	Job Title	International Sales Director
Number of Customers Total	400	Contact address	3/14, Polkovaya St., Moscow, 127018, Russia
Number of Employees	1,600	Telephone number	7 (495) 780 7577
Inception	1991	Email Address	info@diasoft.com
Geographical coverage	Asia, Europe, Russia	Homepage address	www.diasoft.com



FERNBACH, a medium-sized software company, was established by Günther Fernbach in 1986 and now operates internationally. The company focuses on the automation of reporting processes, particularly in the finance and accounting sectors. Reports are created automatically for all stakeholders, employees, managers, investors and supervisory authorities. Each year, FERNBACH has been listed in the upper third of the 100 leading risk technology vendors worldwide by Chartis Research, the main provider of global research and analyses for risk management technology.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Sole proprietorship	Contact	Miriam Dittert
Annual turnover	Undisclosed	Job Title	Marketing Assistant
Number of Customers Total	more than 50	Contact address	Europa-Allee 22 Frankfurt/Main 60327, Germany
Number of Employees	150	Telephone number	+49 34605 450 135
Inception	1986	Email Address	miriam.dittert@fernbach.com
Geographical coverage	Africa , Asia, Europe	Homepage address	www.fernbach.com



Fidessa provides products and services for the whole life cycle of the trading process for both the buy-side and sell-side, from low latency trading tools to settlement, compliance, market data and risk management. By automating the entire workflow, Fidessa improves productivity, competitiveness and efficiency, while at the same time reducing both costs and risk to the financial institutions. Some of the flagship products offered by Fidessa include Fidessa IMS, Sentinel, Affirmation Management Service as well as Minerva suite for order and execution management.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	Simon Barnby
Annual turnover	Undisclosed	Job Title	Global Marketing Communications Director
Number of Customers Total	Undisclosed	Contact address	1 Old Jewry, London EC2R 8DN, UK
Number of Employees	Undisclosed	Telephone number	44 20 7105 1250
Inception	1981	Email Address	simon.barnby@fidessa.com
Geographical coverage	Global	Homepage address	www.fidessa.com



Headquartered in Bangalore, India and with offices in Mumbai, Manila, Johannesburg, Dubai and New York, Fintellix is a leading Compliance, Risk & Analytics (CRA) Products and Solutions provider for the global Financial Services industry. Fintellix's Banking solutions are available for on-premise implementations as well as provisioning from a regional Cloud infrastructure. Fintellix is currently active in India, US, Europe, Middle-East, Africa and South East Asia; and has some of the Global Top 50 Banks and leading Global/ Regional banks as clients.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Sole proprietorship	Contact	Naresh Kurup
Annual turnover	Undisclosed	Job Title	Head-Marketing & Communications
Number of Customers Total	35+	Contact address	#5-10, 17 H Main, Koramangala 5th block Bangalore - 560095, India
Number of Employees	300	Telephone number	91-80-40589400
Inception	2006	Email	nareshkurup@fintellix.com
Geographical coverage	India, USA, South Africa, Philippines, Vietnam, UAE, UK	Homepage address	www.fintellix.com



Fiserv is highly regarded for its financial services technology and services innovation, including solutions for mobile and online banking, payments, risk management, data analytics and core account processing. Fiserv is helping its clients push the boundaries of what's possible in financial services delivering deep expertise and innovative solutions to help financial institutions, businesses and consumers move and manage money faster and with greater ease. The most popular solutions invented by Fiserv are DNA, CUnify, Signature, Agiliti Platform.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	Travers Clarke-Walker
Annual turnover	Undisclosed	Job Title	Chief Marketing Officer
Number of Customers Total	13,000+	Contact address	2nd Floor, One Kings Arms Yard, London EC2R 7AF United Kingdom
Number of Employees	10,000+	Telephone number	+44 (0) 7834 729 107
Inception	1984	Email	travers.clarke-walker@fiserv.com
Geographical coverage	Global	Homepage address	www.fiserv.com



FIS is a global leader in financial services technology, with a focus on retail and institutional banking, payments, asset and wealth management, risk and compliance, consulting, and outsourcing solutions. Through the depth and breadth of our solutions portfolio, global capabilities and domain expertise, FIS serves more than 20,000 clients in over 130 countries. Headquartered in Jacksonville, Fla., FIS employs more than 55,000 people worldwide and holds leadership positions in payment processing, financial software and banking solutions. Providing software, services and outsourcing of the technology that empowers the financial world, FIS is a Fortune 500 company and is a member of Standard & Poor's 500® Index. For more information about FIS, visit [www.fisglobal.com](http://www.fisglobal.com).

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Publicly traded (NYSE:FIS)	Contact	Ellyn Raftery
Annual turnover	Undisclosed	Job Title	Chief Marketing Officer
Number of Customers Total	Over 20,000	Contact address	601 Riverside Avenue Jacksonville, FL 32204 USA
Number of Employees	55,000+	Telephone number	904 438 6000
Inception	Undisclosed	Email Address	ellyn.raftery@fisglobal.com
Geographical coverage	Global	Homepage address	www.fisglobal.com



GFT Group is a business change and technology consultancy trusted by the world’s leading financial services institutions to solve their most critical challenges. Specifically defining answers to the current constant of regulatory change – whilst innovating to meet the demands of the digital revolution. Utilising the CODE\_n innovation platform, GFT is able to provide international start-ups, technology pioneers and established companies access to a global network, which enables them to tap into the disruptive trends in financial services markets and harness them for their out of the box thinking.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	Dawn Blenkiron
Annual turnover	€178.76 M in H1 2015	Job Title	Business Development
Number of Customers Total	9 out of 10 world's top investment banks	Contact address	Capital House, 85 King William Street London, EC4N 7BL, UK
Number of Employees	4,000	Telephone number	+44 20 3753 5778
Inception	2001	Email Address	Dawn.Blenkiron@gft.com
Geographical coverage	Global	Homepage address	www.gft.com



INDATA is a leading industry provider of software and services for buy-side firms, including trade order management (OMS), compliance, portfolio accounting and front-to-back office. INDATA’s iPM – Intelligent Portfolio Management technology platform allows end users to efficiently collaborate in real-time across the enterprise and contains the best of class functionality demanded by sophisticated institutional investors. INDATA provides software and services to a variety of buy-side clients including asset managers, registered investment advisors, banks and wealth management firms, pension funds and hedge funds. What sets INDATA apart is its single-minded focus on reducing costs and increasing operational efficiency as part of the technology equation.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Limited Liability Company (LLC)	Contact	Robyn Corcoran
Annual turnover	Undisclosed	Job Title	Marketing Coordinator
Number of Customers Total	Over 200	Contact address	115 E. Putnam Avenue, 2nd Floor, Greenwich, 06830
Number of Employees	Over 150	Telephone number	858-847-6572
Inception	1968	Email Address	robyn@indataipm.com
Geographical coverage	North America, Europe	Homepage address	www.indataipm.com



Milestone Group is a global provider of advanced software solutions to asset managers, fund product manufacturers and distributors, life and pension companies, and fund administrators. Its pControl funds platform is a single application platform delivering market leading operational efficiency, transparency and control to key business functions. Milestone Group brings global insight and proven technology to deliver a unique business partnership.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Limited Partnership	Contact	Renee McGettigan
Annual turnover	Undisclosed	Job Title	Marketing Executive
Number of Customers Total	Undisclosed	Contact address	Level 21, 9 Castlereagh Street, Sydney NSW 2000
Number of Employees	Undisclosed	Telephone number	+61 2 8224 2662
Inception	1998	Email Address	renee.mcgettigan@milestonegroup.com.au
Geographical coverage	Global	Homepage address	www.milestonegroup.com.au



NICE Actimize is the largest and broadest provider of financial crime, risk and compliance solutions for regional and global financial institutions, as well as government regulators. Consistently ranked as number one in the space, NICE Actimize experts apply innovative technology to protect institutions and safeguard consumers and investors assets by identifying financial crime, preventing fraud and providing regulatory compliance. The company provides real-time, cross-channel fraud prevention, anti-money laundering detection, and trading surveillance solutions that address such concerns as payment fraud, cyber crime, sanctions monitoring, market abuse, customer due diligence and insider trading.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	Cindy Morgan-Olson
Annual turnover	Undisclosed	Job Title	Head of Global Public Relations/Analyst Relations
Number of Customers Total	over 100	Contact address	1359 Broadway 5th Floor New York, NY 10018 USA
Number of Employees	over 500	Telephone number	+212 851 8842
Inception	1999	Email Address	cindy.morgan-olson@niceactimize.com
Geographical coverage	Global	Homepage address	www.niceactimize.com



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COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Sole proprietorship	Contact	Pamela Pecs Cytron
Annual turnover	over \$5M	Job Title	CEO – Pendo Systems, Inc.
Number of Customers Total	20+ top tier banks worldwide	Contact address	102 Clinton Avenue, Montclair, NJ 07042, USA
Number of Employees	over 10	Telephone number	+973 727 7853
Inception	2006	Email Address	pamela@pendosystems.com
Geographical coverage	North America	Homepage address	www.pendosystems.com



Pegasystems develops strategic applications for sales, marketing, service and operations. Pega's applications streamline critical business operations, connect enterprises to their customers seamlessly in real-time across channels, and adapt to meet rapidly changing requirements. The solutions offered by Pegasystems are available on-premises or in the cloud and are built on its unified Pega 7 platform, which uses visual tools to easily extend and change applications to meet clients' strategic business needs.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	Robert R.Spencer
Annual turnover	Undisclosed	Job Title	Vice President & Managing Director Sales, Financial Services
Number of Customers Total	2000+	Contact address	One Roger Street Cambridge, MA 02142-1209, USA
Number of Employees	3000	Telephone number	617-834-9580
Inception	1983	Email Address	robert.spencer@pega.com
Geographical coverage	Asia, Europe and North America	Homepage address	www.pega.com



Polaris Consulting & Services Limited is a global expert in Financial Technology (FT) for Banking, Insurance, and other Financial Services. Polaris innovates digital transformation offering solutions that result in performance breakthroughs where incremental improvements are not sufficient. The specialized practice areas include: mobile, user experience, data & analytics, systems integration, testing, infrastructure management and business process outsourcing; along with specialized vertical practices in consumer and corporate banking, capital markets, and insurance.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Public Company	Contact	George Ravich
Annual turnover	Undisclosed	Job Title	Chief Marketing Officer
Number of Customers Total	Undisclosed	Contact address	20 Corporate Place South Piscataway, NJ 08854, India
Number of Employees	5001-10,000	Telephone number	1-732-590 8100
Inception	1993	Email Address	george.ravich@polarisft.com
Geographical coverage	Global	Homepage address	www.polarisft.com



Profile Software, an ISO-certified and listed company, is a specialised financial solutions provider, with offices in Geneva, Dubai, London, Singapore, Athens and Nicosia. It delivers market-proven solutions, with an exceptional track record of successful implementations, to the Banking and Investment Management industries. The company is acknowledged as an established and trusted partner across many regions, offering a wide spectrum of solutions to the financial services sector. Profile Software's solutions have been recognised and approved by leading advisory firms and enable Institutions worldwide to align their business and IT strategies while providing the necessary business agility to proactively respond to the ever-changing market conditions.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	PLC/listed firm	Contact	Kate Tsoura
Annual turnover	Undisclosed	Job Title	Marketing Director
Number of Customers Total	250	Contact address	199, Syngrou Ave., 171 21, Athens, Greece
Number of Employees	152+	Telephone number	+30 210 9301200
Inception	1990	Email	ktsoura@profiles.com
Geographical coverage	Global	Homepage address	www.profiles.com



Ripple provides global financial settlement solutions to enable the world to exchange value like it already exchanges information – giving rise to an Internet of Value (IoV). Ripple solutions lower the total cost of settlement by enabling banks to transact directly, instantly and with certainty of settlement. Ripple bridges these siloed networks with a common global infrastructure that brings new efficiency to financial settlement by enabling real-time settlement, ensuring transaction certainty and reducing risk.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	ZZ Zhuang
Annual turnover	Undisclosed	Job Title	Sales Operations Associate and Business Development
Number of Customers Total	25 active integrations	Contact address	300 Montgomery St 12th Floor San Francisco, CA 94104, US
Number of Employees	110	Telephone number	650-644-6228
Inception	2012	Email	zz@ripple.com
Geographical coverage	Global	Homepage address	www.ripple.com



SAGE SA delivers innovative solutions that help financial institutions make better investment decisions and build client trust even in uncertain market conditions by allowing them to communicate investment decisions in total transparency. SAGE SA has solutions for investment tracking, wealth management, asset management, risk management and more. SAGE SA has the ideal solution for today's financial services provider. SAGE SA offers Prospero, a suite of wealth management solutions that is user-friendly, robust and cost-effective; and BlackSwan Financial Platform, a Portfolio Optimization solution. SAGE SA, which was founded in 1986, has its headquarters in Switzerland, and has branches in Dubai and Singapore

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Corporation	Contact	Cecile Escobar
Annual turnover	Undisclosed	Job Title	Senior Business Development Manager
Number of Customers Total	Undisclosed	Contact address	Rue de Genève 88, Lausanne, 1004
Number of Employees	80	Telephone number	+41 21 653 64 01
Inception	1986	Email Address	info@sage.ch
Geographical coverage	Asia, Europe	Homepage address	www.sage.ch



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COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Nathan Gee
Annual turnover	Undisclosed	Job Title	Senior Marketing Manager
Number of Customers Total	1,500 clients	Contact address	St Helen's, 1 Undershaft, London EC3A 8EE, UK
Number of Employees	over 500	Telephone number	+44 (0) 20 7898 0630
Inception	2000	Email Address	nathan.gee@smartstream-stp.com
Geographical coverage	Global	Homepage address	www.smartstream-stp.com



Strands is a global provider of personalization and recommendation solutions for digital banking and retail markets, serving customers worldwide, including Barclays, BBVA, BNP Paribas, Bank of Montreal, Carrefour and Panasonic. Strands serves its customers via two business units:

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Strands Retail – drives the businesses of over 100 online retailers with industry-leading recommendation and customer segmentation solutions.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Private Limited Company	Contact	Victoria Yasinetskaya
Annual turnover	Undisclosed	Job Title	Marketing Director
Number of Customers Total	20+ top tier banks worldwide	Contact address	Calle Almogavers 119, Barcelona, Spain
Number of Employees	100	Telephone number	+34 672 072 799
Inception	2004	Email Address	yasinetskaya@strands.com
Geographical coverage	Global	Homepage address	www.finance.strands.com



SunTec Business Solutions is the leading provider of revenue management and business assurance solutions to financial services and digital and communications services industries. With deployments in 58 countries, SunTec's highly functional and technology-agnostic product suite Xelerate™ empowers the clients to create real-time personalised offerings to improve profitability and customer experience while optimising customer lifetime value. The product suite enables service providers to develop, launch and monetise innovative offerings quickly. Xelerate has helped create products and services for over 300 million end-customers today.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Garima Pande
Annual turnover	Undisclosed	Job Title	Head of Corporate Marketing
Number of Customers Total	40	Contact address	Kowdiar, Trivandrum 695 003, India
Number of Employees	800+	Telephone number	91 471 3917167
Inception	1990	Email Address	garimap@suntecgroup.com
Geographical coverage	Global	Homepage address	www.suntecgroup.com



Vocalink is a global payments partner relied on by financial institutions, corporates and governments to provide high availability and resilient payment solutions. Vocalink provides payment clearing systems and ATM switching platforms which underpin the majority of UK electronic payments – we provide a national grid for payments. Platforms developed by Vocalink enable to make payments confidently, securely and cost effectively. In 2015 Vocalink processed over 10 billion transactions with a value of £5 trillion.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Julia Whittaker
Annual turnover	Undisclosed	Job Title	Head of Portfolio Marketing and Events
Number of Customers Total	Undisclosed	Contact address	1 Angel Lane, London, EC4R 3AB, United Kingdom
Number of Employees	1000+	Telephone number	44 (0) 870 165 0019
Inception	2007	Email	Julia.Whittaker@vocalink.com
Geographical coverage	Global	Homepage address	www.vocalink.com



Volanté Technologies is a global leader in the provision of software for the integration, validation, processing and orchestration of financial messages, data and payments within financial institutions and corporate enterprises. Many clients use Volanté to assist with multiple product implementations ranging from message transformation and integration, through to the processing and orchestration of transaction data and payments. Along with its products, Volanté Designer and its VolPay suite of payments integration and processing products, Volanté constantly maintains a growing library of over 85 domestic and international financial industry standards plugins with more than 250 prebuilt, customizable, and bidirectional transformations to and from these standards.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Private Company	Contact	Fiona Hamilton
Annual turnover	Undisclosed	Job Title	Vice-President, Europe and Asia
Number of Customers Total	more than 80 in 26 countries	Contact address	9 Devonshire Square, London, EC2M 4YF, 7th Floor, London N1 9AG, UK
Number of Employees	around 120 and growing	Telephone number	+44 (0)203 178 2970
Inception	2001	Email	fiona.hamilton@volantetech.com
Geographical coverage	US, Latin America, UK, Europe, Middle East, Africa, India	Homepage address	www.volantetech.com



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COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	LTD (Brazil LTDA)	Contact	Jefferson Viana
Annual turnover	Undisclosed	Job Title	President
Number of Customers Total	186	Contact address	80 SW 8th Street , Suite 2000 Miami, USA
Number of Employees	212	Telephone number	+ 17866001005
Inception	1991	Email	jefferson@wayback.com.br
Geographical coverage	Global	Homepage address	www.wayback-usa.com

# Financial



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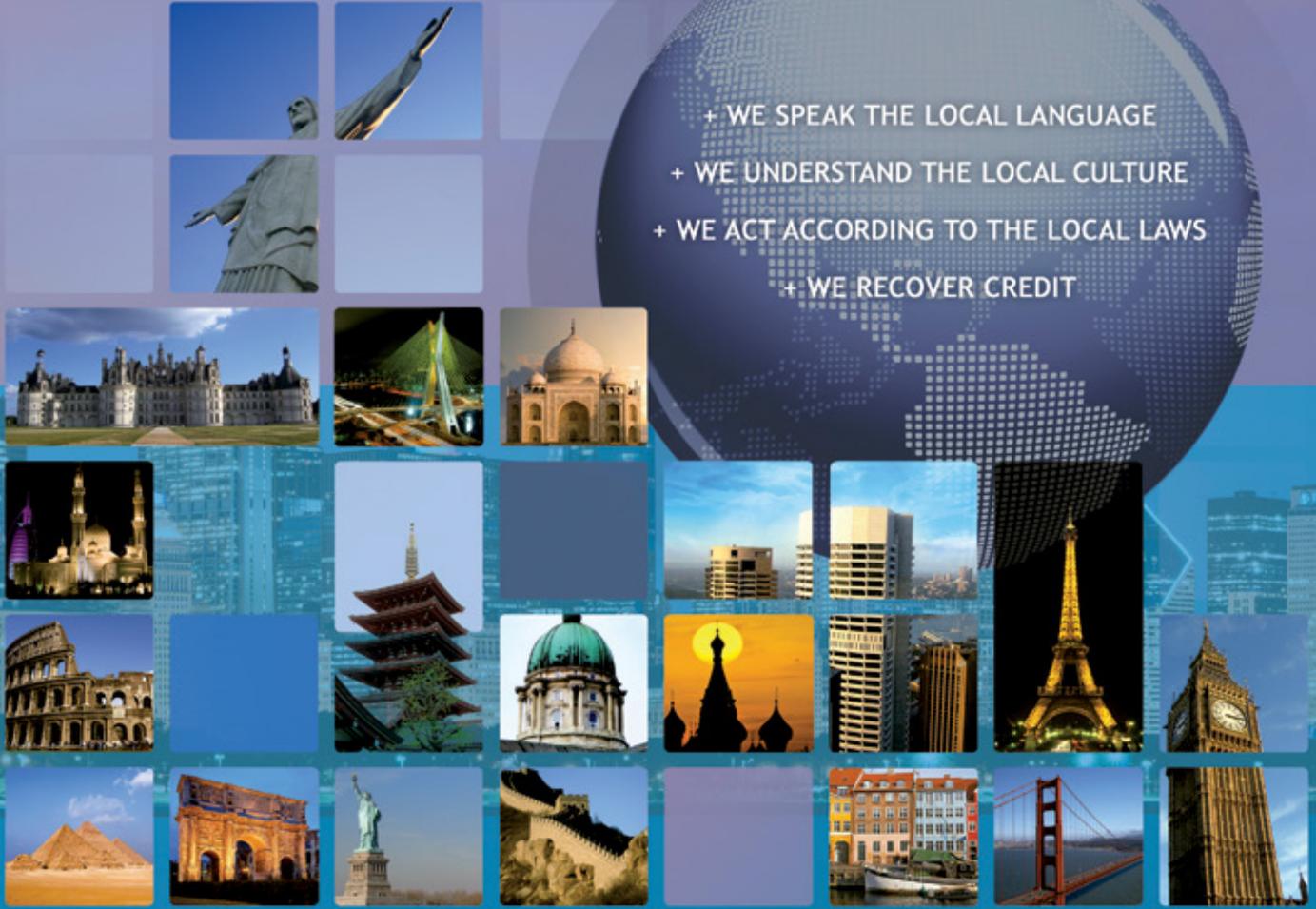


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