Financial (II)

Innovations in Technology

Alfred J. Carpetto, EVP, Business Head, Americas – Intellect Design Area – iGTB

THE FUTURE OF PAYMENTS: FROM "TRANSACTIONAL" TO "CONTEXTUAL"

BANK TECHNOLOGY: A HINDRANCE OR AN ENABLER TO RETAIN CORPORATE CLIENTS?

Günther Peer, Vice President, Sales & Client Relations TS at Reval DLT TO KILL BANKING OR BUILD BETTER MARKETS

Gary Wright, CEO B.I.S.S, Research, Co-founder BAT & Co-Chair ISITC Blockchain Working Group THE JOURNEY TO TRADE FINANCE DIGITIZATION:
A Q&A WITH
JACCO DE JONG

Jacco de Jong, Managing Director, essDOCS Consulting



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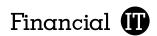
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Finnet Limited 137 Blackstock Road, London, N4 2JW, United Kingdom +44 (0) 208 819 32 53

Special Sibos 2016 Issue



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THE SALVATION OF BANKING

Disruption is normally seen as being bad news for incumbents. This is not necessarily the case.

The previous edition of Financial IT provided a comprehensive overview of Blockchain. This edition of Financial IT, whose publication coincides with the Sibos conference taking place in Geneva on 26-29 September, covers the other main source of disruption for financial services executives.

If that other source could be summarised in one word, that word would be: FinTechs. In diverse fields, such as mobile payments, peer-to-peer lending and crowdfunding, technology and commercial acumen has enabled new entrants to compete in areas that were, until recently, strictly the preserve of banks.

The Cloud has been a key catalyst for the rise of the
FinTechs. The Cloud provides speed in the processing of data. It provides security. Perhaps most crucially, it provides
FinTech disruptors with the ability to scale up the solutions that they are offering.

At the time of the global financial crisis in 2008-09, it was difficult to conceive how some companies would be able to grow very quickly over the ensuing seven-to-eight years. As one of our contributors points out in this edition of Financial IT, one third of the companies that are listed in Forbes' America's Most Promising List started life after the crisis.

In short, progress in technology, which often goes hand in hand with disruption, has promoted growth and improved outcomes for customers. Because of the continuous rise in customers' expectations, the improvement in customer experience is a good thing for banks and other financial institutions.

But, as another of our contributors points out, rising customer expectations is only one of several serious threats that banks face. Another is a sharp rise in transaction volumes thanks to higher volatility in financial markets. Meanwhile, more and more business is being conducted in real time through digital transformation.

If this were not enough, financial institutions that operate across borders have to deal with changing - and not necessarily consistent - regulations. Finally, the challenges associated with cyber-crime, some of which is sponsored by states, are rising.

Collectively, though, the articles that appear in this edition of Financial IT have a positive message for banks and financial institutions. One of our contributors highlights how incumbent banks could adapt distributed ledger technology (DLT - the essence of Blockchain) for their own benefit: not all the incumbents will be losers as a result of the evolution of totally new financial markets.



Andrew Hutchings, Editor-In-Chief

And the new technology that is being delivered by disruptors can help banks and other financial institutions to better understand their own clients. According to some estimates, half of the United States' population could be using digital wallets by 2020. The organizations that will benefit the most will likely be those that best understand that digital wallets involve engagement with the customer that goes far beyond mere transactions.

In fact, payments will likely become the secondmost important aspect of the payments industry. The most important aspect will be information and insights about the clients. Ultimately, the competitive edge will be gained by the institutions that are able to

understand the context of each and every transaction that is taken by their clients.

In short, the disruption that is underway is unquestionably good news for some banks, provided that they are able to deal with information in new ways. As one of our contributors explains, there has never been greater need for data that is granular, summarised, visual, mobile and/or interactive.

One aspect of disruption that is not well understood is the role of Application Programming Interfaces (APIs). Typically, banks have seen APIs as solutions to compliance or regulatory requirements. In fact, they can and should be seen as customer products, because they enable banks to improve the products and services that they offer to clients.

In essence, APIs enable banks to combine 'best of breed' technologies to deliver the best outcomes to clients. APIs mean that FinTechs are just as likely to be collaborators with banks as they are to be competitors.

Various other articles in this edition of Financial IT highlight how new technology, and the disruption that comes from FinTechs, is consistent with lower costs of doing business. In the UK, the Payment Strategy Forum (PSF) has proposed a new and simplified payments platform that will encourage the entry of new players. A number of companies are looking at how technology can be used to streamline the documentation and financing of international trade.

Collectively, this edition of Financial IT shows how the disruption from FinTechs is real. In five years time, there will probably not be any aspect of the broadly defined financial services industry where business is carried out in much the same way that it is today. However, many incumbent banks and financial institutions will actually benefit from new technology. For some, the disruption will be their salvation.



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THE FUTURE OF PAYMENTS: FROM "TRANSACTIONAL" TO "CONTEXTUAL"

Following iGTB's recent announcement that Canadian bank CIBC has implemented phase one of the bank's next generation payments infrastructure for business clients, Al Carpetto, iGTB's Business Head for Americas, explains how the future of payments will centre not on processing payments, but on ensuring that they are real-time and "business aware" – allowing banks to understand the intent or context of each and every interaction.

Banks are entering a critical period in the field of payments. Low interest rates, commoditisation within traditional clearing and settlement services, and competition from non-bank challengers are all shrinking margins and market share, while customer expectations for instant transactions continue to soar in an increasingly digital world. On top of all of this, regulatory pressures continue to pose fresh challenges. Banks must respond quickly. At the most basic level they must support real-time payments, but they also need to assess what real-time might mean from a corporate/consumer behaviour, regulatory compliance and banking IT infrastructure perspective.

One way to enable all this change is through the implementation of a payments hub. This is a centralised payments and transaction management solution that deploys a horizontal layer across all payment channels and interfaces to orchestrate the handling of instructions and execution of payments in a holistic manner. Executed correctly, a payments hub can enable the type of reinvention that banks need to achieve the ultimate goal of formulating new business models that position them as integral parts of corporate

supply chains (just as consumer banks have become integrated into customers' lives).

A payments hub not only enables real-time transactions with a slick, interoperable, configurable user interface – it enables banks to get "contextual". You may be asking yourself, "what does that mean?" It means banks must go beyond mere transactions to recognise and solve the real, underlying business need behind them. They need to become "business-aware". In future transaction banking business models, the transaction itself will be no more than a starting point; instead, optimising customers' operations will be at the core. Deploying the vast quantities of high-touch historic data accessible to them (a clear advantage they have over new market entrants) combined with advanced algorithms and artificial intelligence, will enable banks to gain, and act on, a better understanding of each of their clients' actions.

Why is there a need for this type of radical rethinking of operating models? As mentioned previously, banks are now subject to a number of pressures in the form of rising customer expectations, regulatory challenges and profitability concerns. Existing core banking systems and applications – often decades old, operating in batch mode – quite simply can't enable the change that is required.

Evolving consumer behaviour and attitudes

At the heart of the need for business-aware banking is the client. Consumer behaviour has already driven dramatic changes

About Alfred J. Carpetto:

A banking and financial markets industry veteran of over 20 years, Al was previously Head of Enterprise Commercial Payments at Key Bank, with responsibilities spanning Treasury Services, Foreign Exchange & International Trade, Institutional Asset Services, Commercial Card Services and Operational Risk.

Al previously served as Head of Global Transaction Services for the Americas at RBS, as an Executive within the Treasury and Securities Services Group at JP Morgan Chase. He has also held leadership positions at Donaldson, Lufkin & Jenrette and Dean Witter Reynolds. He is a former member of the PayCo Board at The Clearing House and has also served on the Board of BAFT, the Bankers Association for Finance and Trade.

in retail banking, and clients are now coming to expect the same level of service from their corporate banking partners. This means that traditional corporate banking models, structured (at best) for extended business hours, are being challenged for the first time in over 30 years. The main driver of "real-time" has been the demand from both consumers and businesses for immediate fund transferral where money is instantaneously available and usable. Their expectation from banks is a slick, frictionless experience with services available at their point of need, over a channel of their choice. This is not just a customer service imperative – it goes deeper. Consumer attitudes have shifted. The idea of banks holding onto client money for three hours – let alone three days – before receipt by the payee, is now unacceptable sharp practice in customers' eyes.

Escalating regulatory pressure

Rising volumes of large value payments have resulted in the need to have flexible liquidity management systems. Under Basel III's Liquidity Coverage Ratio (LCR), banks are required to hold an amount of high-quality liquid assets (HQLAs) – such as cash, treasury bonds or corporate debt – equal to, or greater than, their net cash outflow over a 30-day stress period, at least 100% coverage soon to be required. Banks offering payments and transaction services therefore have to consistently manage intraday liquidity risks that arise because of their outstanding payment obligations, meaning liquidity management systems need to forecast intraday and future cash and collateral positions in real-time.

Additionally, many regulators are moving towards country-wide real-time payments mechanisms which require real-time status reporting and data connectivity to central banks. At the same time, banks need a powerful payment system to comply with regulations for anti-money laundering and sanctions screening like FATF, FATCA and Dodd Frank that combat terrorism financing, and then payment integration initiatives like SEPA.

Cost pressures/profitability concerns

Goldman Sachs reported in March 2015 that banks stand to lose an estimated \$4.7 trillion in financial services revenue as consumers migrate to new fintech firms, and payments services are especially vulnerable. Low interest rates and commoditisation within traditional clearing and settlement services are all shrinking margins, and the penalties of non-compliance are another pressing concern. Legacy systems with delayed batch postings to the core banking systems have an operational cost impact on banks as well as a stifling effect on innovation. At the same time, separate systems processing cheques, ACH and other payment types all result in prohibitive cost burdens.

Payments Hubs

So how does the implementation of a payments hub address these challenges? Crucially, a centralised payments hub transforms payments processing to real-time, satisfying the customer demand for one click, one second payments. It acts as a single source of truth for all payment transactions, enabling the bank to manage – on a single platform – any type of payment transaction, instrument type, customer, channel or payment standard. With a

robust infrastructure, it is capable of supporting large transaction volumes reliably in real-time.

A payments hub supports channel-agnostic, interoperable, configurable, open technology that developers can use to embed the necessary functions and services in their applications and create a personalised customer experience. A new breed of application programming interfaces (APIs) are one way to enable this functionality, supporting any interaction (whether initiated by human, application or device) from any channel, device, location, time and currency... all in real-time. Through collaborating with the right technology providers, banks can meet growing customer demands and offer new user-driven capabilities.

In terms of Basel III compliance, a real-time payments hub also provides the functionality for banks to "dynamically throttle" their outgoing payment instructions from any division, across the whole bank, so that their cash outflow does not break the LCR covenant. In light of scarcity and the expense of capital within a bank, the ability to optimise required capital and to ensure adherence to the LCR by means of dynamic payment throttling is critical to meeting compliance requirements. Enterprise-wide visibility into payment operations – across all channels and business lines – enables banks to meet further regulatory challenges.

In terms of cost savings, centralised payments orchestration, reduced operational complexity, and increased straight-through processing rates for all payment types improves operational efficiency. Centralised business rules, rapid addition of new payment methods, channels and products, and reduced time and cost of integrating new acquisitions all drive improved business efficiency as well – critical in a low-margin environment. A real-time payments platform reduces the overall cost of a payment transaction, and the consolidation of separate systems processing cheques, ACH and other payment types further reduces the operational costs involved.

iGTB's Payments Services Hub

iGTB's Payments Services Hub (PSH) is one such payments hub solution. Able to be integrated into banks of all sizes, it handles any form of payment, whether it is a traditional wire, ACH, a real-time payment or even a blockchain-related digital payment such as Ripple. But the ability to orchestrate payments across channels and execute traditional payments are "hygiene factors" – important, delivering proven operational and economic benefits, yet more-orless the industry standard.

iGTB's PSH differentiates itself by going a step further and enabling payments to be orchestrated horizontally across the bank, with the aim of enabling banks to become an integral part of their corporates' supply chains – delivering tangible economic, operational, business and strategic benefits to both parties. Crucially its centralising of a bank's payment workflows enables the contextual understanding of clients' transactions that we believe is going to be so important in the future. With C2C, C2B, B2C and B2B segments also converging, a holistic approach such as that enabled by the PSH is needed.

Looking ahead, banks must ready themselves for the Digital Age, support real-time payments and radically redesign banking operating models to enable a move from focusing on linear transactions to contextual interactions. A payments hub can be the answer to these challenges: a foundation on which to build new business models in this new era of payments.

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Günther Peer, Vice President, Sales & Client Relations TS at Reval

BANK TECHNOLOGY: A HINDRANCE OR AN ENABLER TO RETAIN CORPORATE CLIENTS?

As companies add new markets, products and entities, they often outgrow the policies, processes and technology they have in place to run their corporate treasury operations. Their first instinct is to turn to their trusted bank partners for help. They look for partners that offer them comprehensive liquidity management services in both their domestic and in their new, international markets. If their core bank cannot support their need for global visibility into cash positions and FX exposure, they begin to add new banks to their portfolio.

Disconnect between Client Needs and Bank Services

Financial institutions with global operations and a comprehensive offering for corporate treasuries provide finance teams in fast-growing corporations with the services and tools they ask for, strengthening the relationship with their clients and increasing the bank's share of wallet.

However, many banks, particularly midsized banks, often do not have presences in all the markets to which their corporate clients expand. But even banks with a global footprint struggle to offer their corporate clients global treasury services, as they are typically organized on a country-by-country basis.

In these situations, the corporate clients benefit from local expertise. Nevertheless, disconnected and rigid banking technology can prevent the banks from offering their multinational corporations the services they ask for. Here are three examples:

Cash pooling: Expanding to Great Britain, a German company wants to pool their cash at the end-of-day from their three new bank accounts in the UK to their master account in Germany. Although the company has all their bank accounts with their primary bank, it is not possible to set up a cash pool across borders.

As the bank is using different systems in the UK and Germany, the finance team can create a cash pool for the three GBP accounts, but subsequently cannot automatically pool cash from the British master account to the German master account on the same day. They need additional cash reserves to balance their accounts

Notional pooling: After the successful UK market entry, the German company starts a production facility in Brazil. Their primary bank covers South America and bank accounts are added in Brazil to pay local salaries and suppliers. With the BRL, a new and volatile currency is added to the company's FX portfolio.

The finance team wants to optimize returns on the non-convertible BRL with a cross-currency notional pool. But as their global bank partner lacks the technology infrastructure to offer notional pooling services across countries, BRL cash stays trapped where it is is not needed.

Treasury services: Attracted by Asia's high-growth markets, the German company starts selling into Singapore, Malaysia and Vietnam. As their primary bank does not cover Asia, they start working with local banks.

The small finance team needs an overview on their global cash positions and FX exposures, but their primary bank partner is not able to add the Asian bank accounts to their cash position reports.

The bank's technology is not flexible enough to import balances of third-party banks into the bank's web portal. The finance team ends up manually collecting and consolidating data from their bank portals, thus wasting time and risking error.

Technology for Better Services

Relying on disconnected and rigid technology, bankers often aren't able to offer multi-national corporates the treasury services they ask for.

By investing in flexible technology, financial institutions can advance their corporate banking services: they can offer solutions for cash concentration, notional pooling, cash forecasting and FX risk management across borders, banks and currencies.

Overcoming fragmented IT infrastructures, banks are able to evolve with their multinational clients.



About Günther Peer:

Günther Peer has more than 10 years of international experience in cash, liquidity and financial risk management, working with leading corporates and transaction banks around the globe. Together with his elite team at Reval, Mr. Peer works with clients, prospective clients and partners to identify financial trends, understand global treasury requirements and provide innovative technology solutions to organizations worldwide. His prior roles have included product management, solution consulting and sales management. Mr. Peer is a graduate from the Graz University of Technology, where he earned a Master of Science degree in Technical Mathematics, and is a regular speaker and author in the treasury industry.

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Gary Wright,CEO B.I.S.S, Research, Co-founder BAT & Co-Chair
ISITC Blockchain Working Group

DLT TO KILL BANKING OR BUILD BETTER MARKETS

Blockchain technology first caught the world's attention through Bitcoin and, ever since, this underlying technology known as Distributed Ledger Technology or DLT has created a technology land grab with seemingly endless number of use cases published in the media. How many of the use cases see the light of eventual profit only time will tell. However, the high interest and investment energy created by DLT has fuelled an ongoing debate on how DLT can be implemented to do what and for what benefit to whom?

The huge investment by Banks into the technology via start-ups and venture capital firms/organisations would suggest that implementation will happen sooner rather than later. However, it should not be underestimated at the size of the task or the many obstacles that will need to be overcome.

At SWIFT 2015 there was already a vibrant and imaginative discussion about DLT and in 2016 the debate will be no less energetic. SWIFT has also been heavily involved with the DLT band wagon although it's hard to see where SWIFT will benefit as the technology looks an anathema to a private communication network. Notwithstanding SWIFT has recognised that there is a real threat and opportunity in DLT and they at least are playing a positive role in hosting the debate.

The state of play of DLT implementation in the financial market and, even more importantly, the usage is difficult to measure. The overhyped nature of new technology entering the arena can mask the facts required to carry out a due diligence assessment. The effect is a confusing picture made up of massive press releases, analytical valuation and high financial investment. Of course the amount of investment actually fuels the first two and creates a virtual boom or possibly bubble!

Of course until today we are still to see any DLT use cases producing any tangible value or business benefit. This is primarily because the financial markets are all designed for central control by Banks and infrastructure providers.

The market players are all centrally constructed around central databases and of course the major database suppliers are heavily involved. The databases are usually constructed into vertical silos based around asset classes, jurisdictions and customer requirements. Over years the silos that are all legacy system constructions has proved to be very expensive to maintain and very risky to develop or replace. Merger and acquisition of Banks over decades only builds more verticals and, in effect, business built upon sand. The hope is the tide won't come in and wash away the vertical sand castles.

Special Sibos 2016 Issue Lead Story

During the recent decades Banks have invested huge sums of money and effort in producing a centralised processing and central distribution of data and services within the vertical construction. DLT holds particular interest to Banks if it can be a catalyst to tackle the vertical silos but this also comes at a risk if their role and control in the markets is weakened. This was the situation when the Internet started to emerge and change their business.

The Internet has been utilised from this basis enabling a peer to peer network connectivity to be forced to go via central processing points. These can be individual Banks but also the market infrastructure suppliers like Clearing Houses and Stock Exchanges and the central settlement depositories.

It is therefore very difficult to see how DLT can be integrated within a centralised construction of the markets. This provides a reason why DLT has yet to see any tangible implementation within the markets. The problem is not that there is any doubt about the technology but that the technology has yet to find a workable business case.

Will a business case be found in financial markets? The answer will be yes if the financial markets mutually decide to implement DLT in some agreed areas of market processing. Or even if an alternative process can be identified.

Implementing and alternative market structure holds its attractions as the cost and risks of change can be managed and limited. Change would be made as a matter of choice by users who might decide to continue to use the existing infrastructure or by to move to an alternative DLT structure?

What is clear is that DLT demands a community representing the workflow of the industry all agree to invest and build a DLT solution. The markets are made up of dependencies of financial service suppliers and investors and with a large middle ground of agency firms. These agency firms will operate for a fee to investors and consumers and have built contracts and technology links to the market infrastructure firms, including regulators. So the markets are a complex construction evolved over many decades through political, regulatory and economic changes and they all lean on each other and have legal frameworks around the relationships. Its why introducing change within the global financial markets is so difficult time consuming expensive and rarely attempted.

Of course we do see changes introduced into financial markets but these are normally motivated by political or legal/regulatory inspired reasons. Technology forced changes happen even more rarely with PCs and of course the Internet being the greatest of modern history. Technology based changes to the markets still requires a community shift but this usually carries the motivation of making profits.

DLT has the benefits of bypassing the middle man firms that makes up the market. For example, the Issuer in the capital markets could deal directly with the investor or in the payments industry the payee to pay the payer directly.

It is quite radical therefore to introduce DLT and little motivation by the Banks to see any new alternative market infrastructure introduced that moves their customers away from their traditional services. In fact, should a DLT payment capability be introduced and succeed the Banks will lose their liquidity lifeblood.

It might be far too early to suggest that DLT will kill the Banks but it is equally wrong to consider the possibility that should the first waves of DLT turn into a tide the Banks will suffer. What then can they do to protect their future?

They have already started by investing in DLT but not necessarily to introduce change but to first understand what they have to do to control change. The exact same scenario occurred when the Internet was first introduced into commerce. The Banks were forced to adapt their business and services and to provide their customers what they expected. The customer base of Banks often does not change their behaviour or indeed their Banks without extreme reasons. Only a small percentage of customers has changed their Banks over the last decade despite the financial crisis and encouragement by governments and consumer groups to do so.

Why then does DLT hold such a threat?

The threat will come from challenger Banks or other service providers creating an alternative market to provide low cost and riskless services to a society becoming far more technology capable and that has far more expectation from their service providers. If such a climate grows the Banks may find themselves disintermediated before they have time to react.

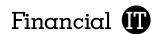
Banks have no real alternative but to investigate how they can manage DLT to their best benefit! This might be first an internal DLT implementation to reduce in-house infrastructure and maybe tackle legacy system replacement before then embarking as a banking community to protect their roles and position within the financial markets.

The number of DLT platforms and technology service suppliers has grown tremendously in recent years and most are privately funded and owned by technology people flushed with the knowledge of the technology and with a challenge of producing use cases that attract customers. There will be a natural order of selection of these vendors in the next few years as financial services firms decide on their DLT strategy and choose the DLT provider best suited to their requirements. Today sorting the wheat from the chaff is difficult and requires some risk and cost to choose the best firm with the best technology.

The need for DLT standards in the financial markets is an immediate need and one that ISITC Europe has identified very early in the development of the new technology. As Co-chairman of the ISITC Europe Blockchain DLT Working Group, I have been working to identify the initial standards and working with other industry groups and organisations to introduce open standards.

DLT has an extremely bright future in financial markets but the future is dependent on increasing knowledge and awareness of DLT whilst providing openness and interoperability between systems but also dependent market service providers. ISITC is working towards creating openness within the DLT world where a community can be created and where choice and change can be implemented with the least cost and risk. It is the requirement that an industry community is formed to implement DLT alternative market processes that is the primary reason how the technology will be introduced. It is the objective of ISITC that knowledge and DLT standards but also sharing ideas will assist firms in making good decisions.

DLT is still in its formative stages and long after the hype has subsided there will be a ground breaking implementation that starts the ball rolling to building a new financial market. The question is whether Banks will adapt to be part of the new market or if they will be replaced by different types of firm and infrastructure organisations? DLT has not come to kill banking but offer an alternative financial market and it will only be a matter of time before we know.



THE JOURNEY TO TRADE FINANCE DIGITIZATION: A Q&A with Jacco de Jong

Jacco de Jong, Managing Director, essDOCS Consulting, talks about his long career in trade finance, providing insights into recent technological developments that are reshaping the industry as we know it.

What is your background in Trade Finance?

Jacco: I started in Trade Finance back in the early eighties, at a time when pretty much all processes were still manual – we only had typewriters, calculators and if we were lucky, a basic telex machine to handle products like Letters of Credit. Back then a CC still meant an actual Carbon Copy of the letter created on the typewriter!

My career has given me the privilege of being involved in most, if not all, Trade and Commodity Finance disciplines: ranging from operations to sales, all the way down to providing capacity building and training for trade finance professionals around the globe. All these experiences are vital to my current role within essDOCS, particularly when consulting customers and (development) banks.

Through the years I have witnessed many changes in terms of trade finance technology (e.g. back office systems and client portals), rules and regulations (e.g UCP revisions) standardisation (e.g. SWIFT MTxxx messages) and developments (e.g. Bank Payment Obligation).

What excites you about this field?

Jacco: What excites me is that trade Finance is tangible and real. It enables a significant volume of transactions to be carried out globally, resulting of course from the production and shipment of goods. In that sense, trade finance is an enabler for global economic growth and has a key role to play in economic development on a local as well as global scale.

Maybe the best example I can give come from my assignments for the Development Banks, with whom I am still working today. I was involved in a program where we enabled banks to start offering trade finance products. Until then a local importer could only import from Western Europe by paying cash in advance and borrowing that cash against 24pct interest per annum. He then had to

hope for the best in terms of timely shipment or even shipment at all for that matter. Huge risks and cost.

When the program was done, the bank could offer its customer Letters of Credit whereby the Development Bank would enable confirmation of that L/C in Western Europe. This opened up a whole new spectrum of risk mitigation, financing, terms & conditions and most importantly, business opportunities – which enabled economic growth!

What are the most significant changes to the trade finance landscape over the last 10 years?

Jacco: There are many big changes such as the focus on compliance & sanctions, regulations (Basel II and III), the entry of Non-Bank finance providers and digitisation. Here at essDOCS, we definitely see increased uptake from customers wishing to move away from paper in their physical and financial supply chain processes. SWIFT has also anticipated the need for a more data driven approach by introducing the Bank Payment Obligation, which I believe is a crucial development.

Many would argue that major changes in such a 'traditional' environment such as Trade Finance tend to happen very slowly, yet on the other hand, no one questions digitisation is the future! This is clearly demonstrated by the speed with which our corporate and bank network has been growing over the past 2 years at essDOCS, where we specialize in enabling this crucial transition to digital.

Who is essDOCS?

Jacco: essDOCS started roughly 11 years ago and is the brainchild of two former University of Pennsylvania MBA students who spent many a late night wondering why the shipping industry was



About Jacco de Jong:

Jacco possesses over 30 years' experience in the International Trade and Commodity Finance Banking space, having worked both for and with numerous major Trade Banks over the past three decades. With his vast wealth of knowledge and deep understanding of Trade and Finance processes both from a Bank and Corporate perspective, Jacco serves as a trusted advisor to numerous Corporates and Financial Institutions across the globe.

In his role as Managing Director, essDOCS Consulting, Jacco provides customers with pragmatic, expert support and advice in their transition towards adopting/embedding trade digitisation into their business. As a SWIFT-certified Trade & Supply Chain Finance consultant, Jacco frequently moderates, speaks and participates in panels at international Trade and Supply Chain Finance events organized by institutions such as SIBOS, ICC, FIBA, SWIFT and more.

trapped in the past, and what could be done to propel it to the future. Post-graduation, the two classmates founded Electronic Shipping Solutions (currently 'essDOCS') with the purpose of delivering the first industry-accepted electronic Bill of Lading (eB/L) solution.

The first five years were spent getting the framework in place, namely the legal requirements and technology required to make the solution viable. From 2010 onwards, essDOCS has grown at an impressive rate, and from just a handful of users in a dozen or so countries, today boasts over 4,100 customers across 73 countries. These customers include the main players in the commodity finance space (Energy, Metals, Agri and Chemicals) as well as major trade finance banks around the globe.

Through years of testing, industry input and extensive R&D, our company has since extended and expanded its offerings to cover a wide range of electronic document & data solutions (not just electronic Bills of Lading), helping businesses improve physical and financial operations, in addition to facilitating optimal compliance, traceability and trade finance execution.

Any recent success stories?

Jacco: As mentioned before we have a dynamic growth rate, but we never settle, and we always make sure that we're at the forefront of technological innovation in our field of expertise. Unlocking the 'digital' potential of complex paper processes in trade finance, simplifying them for end users and maximizing customer experience and engagement is key to our core mission of 'enabling paperless trade.'

Regarding recent success stories, there are numerous transactions and industry 'firsts' which come to mind, though one recent example I found interesting was a transaction involving multiple corporates and banks in Europe and Australia, whereby the entire chain was handled with our electronic documents and on our electronic platform, CargoDocs. In this case, the underlying bank product was a documentary collection, though we also enable e-UCP transactions and Bank Payment Obligations.

In terms of wider successes, although I cannot speak on behalf of our customers and users, we've definitely seen some impressive results and improvements to customer processes post-digitisation, particularly with regard to the speed of executing trade transactions, increased security, and overall visibility in transaction handling.

Finally, I would also add that our recently-launched DocPrep+ offering could also be considered a success, since major metals traders are now use the solution to create all their shipping and trade documents, even if sometimes they still need to be outputted in paper. For them, the platform allows them to embark on the road to digitisation as well as having one single tool to create and store their documents and document templates.

Can you outline some key Opportunities and Growth markets?

Jacco: I think there are two key things to consider here: trade finance, and technology. On the one hand, trade finance enables economic growth as mentioned above, but I believe the key to unlocking trade finance's true potential is technology, or digitization and all the technology and knowledge around it.

For banks who currently don't offer traditional trade finance products it would be much easier to leapfrog towards solutions like the bank payment obligation in combination with electronic documents. Why fist adopt the knowledge and labour-intensive traditional products if you can just as well 'skip that step'. Again here is an area where we at essDOCS enable that transition by offering BPO+ tools to both corporates and banks.

SME financing is a huge issue globally and especially in the emerging markets, and here, again, I see a role for trade finance and digitisation. The technology is there, it is now about educating and enabling the transition!

What is the Strategic focus for essDOCS in the short to medium term future?

Jacco: The tagline "propelling paperless trade" is as true today as it was from the start. It is our ongoing goal to enable our customers to reach 100% paperless trade status, across all their transactions. Paperless trade is not a sprint, but an ongoing journey which in some cases takes time. But when broken down into manageable chunks, with the right technology and know-how, embracing digitization and change becomes a 'no-brainer'!

So I would say that our strategy has always been customer-first, right from the beginning. Our solutions are customer-driven and customer-led, all informed by years of industry input and testing. We don't take this task lightly, and in order to achieve our customer's goal of 100% paperless trade, we must ensure that we always keep innovating and stay ahead of the curve, listening to customers needs and pain points and swiftly acting on those, as we keep expanding the essDOCS user community, and partner with key players around the globe to achieve customer goals.

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Propelling Paperless Trade

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CORE SYSTEM REIMAGINING: The International Investment Bank and Diasoft's Experience

Interview with Dmitry Bocharov, the IT Director of the International Investment Bank, and Alexander Glazkov, the Managing Director of Diasoft.

What is Driving Core Banking Modernization?

Today most financial institutions are getting under an incremented pressure caused by ever-increasing customer demands, constantly changing regulations and the cannibalization risk from new FinTech startups, putting them into a position to constantly analyze their strategies, competitive advantages and weak points and making them navigate the transforming landscape to fight for their place in the sun. As a result, many are discovering that their core systems imply lots of technological constraints and are unable to address all of the new challenges coming from outside. Antiquated technologies and inflexible legacy systems cause inability to quickly or effectively enough modify the existing landscape to meet the current market demands and make financial institutions seriously think over the transformation or even replacement of their core systems.

New FinTechs such as Lending Club, Apple Pay, Android Pay among others are expected to eat a significant portion of bank revenues. According to an estimate, close to 30% of retail banking revenues will be at risk from FinTech disruptors by 2020. Only new technological

platforms can help financial institutions to substantially empower their position in this highly competitive market and provide them with greater flexibility, improving their ability to be more responsive to new customer and market demands, to quickly respond to new regulatory requirements and to overcome competition from new FinTech start-ups.

Determining the best way forward in core systems upgrade, financial institutions should undertake a thorough analysis of their existing architecture to understand the key bottlenecks and gaps it incorporates. It is critical to keep in mind their focus within the market, the value chain and the key capabilities that should be supported by an upgraded system.

In this article we will discuss how the International Investment Bank managed to fundamentally transform its core banking system, what key reasons lied behind this ambitious project, what approach allowed delivering this project in time while meeting all of the established goals, and how a proper strategy allows for a successful system transformation.

A Clear Path to Modernizing the Core

Financial IT: Dmitry, what was the business case for this project? How did you realize that the bank needs to change its core banking system? Were there any key pain points that triggered this decision?

Embarking on Changes

The International Investment Bank (IIB) is a unique supranational organization owned by governments of several countries – Bulgaria, Cuba, Czech Republic, Hungary, Mongolia, Romania, Russia, Vietnam and Slovakia. The IIB invests in projects benefitting the economies of its member states and fostering economic cooperation between them, and focuses in particular on support for small and medium-sized enterprises, export-import financing and project finance. It often participates in syndications with other development institutions, both multilateral and national.

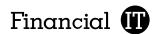
The IIB has undergone many significant changes since its foundation in 1970. In 2012, high-level representatives of the member states in the IIB Council, the Bank's highest governing body, made a strategic decision to introduce a new management team that would ensure increased efficiency of the Bank and support its new development strategy. After a thorough analysis of all areas of the Bank's business, including its IT infrastructure, the new management started a programme of reforms.

Time for Action

By results of this analysis, the Bank came to the conclusion that the existing IT infrastructure with an obsolete core banking solution did not allow achieving the Bank's strategic goals:

- To achieve the level of other international development banks and to become a globally recognized institution, growing the international client base;
- To become flexible and responsive to ongoing market changes.
 The Bank has a unique product portfolio, represented by numerous nonstandard and flexible offerings, and wants to strengthen this position of a provider of unique individually tailored products;
- To establish a reliable platform for the new start of the Bank aimed at its international expansion and growth, which would support the development strategy of the Bank and help it to provide its customers with modern technology-based financial products and services.





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The existing infrastructure lacked flexibility required for creation and launch of new products, for introduction of new business processes, for system configuration and support", said Dmitry Bocharov, IT Director, International Investment Bank. "The new management of the IIB came to the conclusion that the existing core system would not allow the Bank to reach its future development goals and could not serve as a stepping stone to the future. We decided to replace this system with a new innovative platform capable to ensure the successful delivery of all of the IIB's strategical goals."

Financial IT: Dmitry, can you please tell us how you selected a new core system for your bank?

Selecting a Vendor

To select a new core banking solution, we decided to involve an independent consulting agency, which could initiate an in-depth analysis of all existing global core banking systems and come with a list of the most suitable solutions. For this process, the IIB engaged the world's TOP 3 information technology research and advisory company, who analyzed and assessed 33 global core banking systems and provided us with a long list of 11 solutions. By results of a more thorough analysis, there was proposed a short list of 4 systems, meeting the modern technological requirements and supporting international accounting standards.

Before initiating a selection process, we defined the key quality criteria, which had to be incorporated by the system of our choice. It had to:

- Be extremely flexible, open and configurable;
- Allow for further development and support by the Bank's own staff, without any involvement of the vendor;
- Be modern in terms of the interface, have a component-based architecture, ensure high performance, and be DB/middleware/ software-neutral;
- Be multi-lingual, as one of the Bank's unique traits is that it has 9 countries among its shareholders;
- Incorporate a mature Accounting Engine (ensuring full compliance with international accounting and reporting standards);
- Be reliable.

Partner of Choice

Transforming the bedrock of our IT-landscape was a top-priority task for us. But we were not simply looking for an innovative core banking system capable to meet today's business needs, we were looking for a partner who could help us to establish a reliable and fundamentally new foundation for successful development of the Bank for the years to come. We were looking to modernize much more than the underlying technology. We wanted to transform our approach to strategic development of the Bank, we challenged to find a partner who could help us to reimagine our core system and be able to predict how all business processes will have to operate both based on today's realities and future uncertainties, not yesterday's complications.

Diasoft jointly with its FLEXTERA Core Banking turned out to respond to all of the above requirements and became a partner of choice for us.

66 The power of the FLEXTERA solution is that it allows the Bank to select which accounting methodology to apply independently from its product modules. This becomes possible thanks to the accounting engine, which transforms operational product accounting data into the required financial accounting. At any moment, the Bank can switch to any methodology", Dmitry Bocharov, IT Director, International Investment Bank.

Financial IT: Alexander, what do you believe were the key reasons behind the IIB's choice?

In comparison with all monolithic and closed-architecture systems, FLEXTERA is built on the open architecture, applies widely-recognized standard technologies and supports quick development. Its underlying platform – Diasoft Framework – will allow the Bank to quickly design and provide the business with new functional capabilities on its own, independently from the vendor. This allows reducing the operational risk of being vendor-dependent and the risk associated with the cost inflation by the vendor. This also allows quickly adding new products to the Bank's portfolio.

We do not only share with our customers all advantages of our system – we work together with them. It is important to mention that Diasoft delivers more than 200 projects per year, supporting the real business of our customers and serving as a reliable partner to them. We share our experience with our clients, helping them to develop in line with existing trends, while trying to forecast future market requirements basing on our expertise, and implementing these predictions into product roadmaps. We always take responsibility for the solutions and projects we deliver to our clients. We know that the contemporary market of financial technologies is not simply a brand-new market of innovations but a constantly changing area. And the product will never be mature enough within such a dynamic market. That is why financial institutions, in order to keep pace with ongoing changes, should not just acquire an out-of-the-box solution, they require a reliable partner that will establish a proper strategy of the product development.

Goal Diasoft is not simply a software developer, but a guide in the world of financial technologies. Our goal is not to simply deliver a project, we aim to become a reliable and long-lasting partner for our clients. We help to change the world. And we take the responsibility for the final result, which will help our clients to achieve success", comments

Alexander Glazkov, Managing Director, Diasoft.

Financial IT: Dmitry, which advantages have you obtained while working with Diasoft?

Key Differentiators

The IIB operates in the real market, provides loans to real companies, and interacts with real people, all this in a very different countries and in a highly tailored way. It should be underlined that the project allowed us to implement a unique system that can support accounting for almost any potential credit product. This helps us to reduce operational risks.

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The IIB has got rid of all restrictions, can now launch the most complicated credit products (syndicated loans, multi-tranche credit lines with different withdrawal options, loans under different conditions, flexible fees, etc.) and can multiply them without additional resources. This became possible thanks to this project. The IIB offers a variety of very different loan products with a personalized approach to each customer. With FLEXTERA, the IIB obtained not only an infrastructure to design any credit product, but an opportunity to individually negotiate loan conditions with any customer to find a proper solution at any stage of interaction with this customer and at any time change these conditions, even for the past dates, to meet customer needs. Independently from the financial position of a customer, the IIB can always find a personized solution for this customer, achieving the best results for its own business (sometimes it is better to waive a fee and save the company from risks).

With FLEXTERA, the IIB has also obtained a very strong compliance control system (AML). The Master Data Management system is integrated into the platform and is broadly used for the financial monitoring, FATCA, etc. The Bank has a complex and large-scale KYC procedure, which was automated by the FLEXTERA AML module. The high quality of customer identification serves as a starting point for assessment of risks connected with banking transactions and other operations. FLEXTERA helps the IIB to identify customers, their counterparties and beneficiaries in accordance with the FATF recommendations, and provides strong analytical support for every decision and assists in prevention of financial crimes, ensuring success and a stable financial position of the IIB.

Financial IT: Dmitry, how does the project support the bank's development goals?

Driving the Transformation

The IIB believes that with the delivery of this project and thanks to the close collaboration between the project teams, Diasoft now has one of the best loan solution in the market. This is a super flexible product with high performance. The Bank's portfolio incorporates many unique loan offerings, that greatly differ from each other. It also provides very flexible terms for its customers, which are successfully supported by FLEXTERA.

66 I am confident that in our host country, Russia, and maybe even globally, FLEXTERA is one of the best solutions for the banks like ours (development banks) that have a great variety of absolutely different loan products. The Bank's expertise together with Diasoft's capabilities allowed us to create a product that is unique within the international market", Dmitry Bocharov, IT Director, International Investment Bank.

The Bank has already started building its international presence in terms of funds raising: the IIB has issued the bonds at European stock exchanges. The Bank has been awarded by The Romanian Stockbrokers' Association for contribution to the development of the corporate bonds market of Romania. The IIB has entered the local bonds market this year, having placed its debut bond issue on the Bucharest Stock Exchange in the amount of RON 111 million. The issue became the largest issue of an international financial institution released during the past six years in Romania. The Bank has started to open new horizons and now has a technological reserve to support this development during the next 10 years.

Thanks to the implementation of the FLEXTERA Core Banking system, the Bank achieved the following benefits:

- Reduced the workload of the back and middle office and released resources to support the growth of its business volume;
- Reduced the report preparation time by 90% and decreased the workload on the financial department;
- Ensured a 100% annual growth of operations without increasing the Bank's staff or other resources as of today, the IIB's assets have more than doubled;
- Increased automation of accounting processes for treasury operations to 90% versus 40% in the old system;
- Reached almost 100% automation of payment transactions in comparison with manual processing in the old system;
- Brought the processing of credit transactions to a brand-new level, with automated loan origination and centralized storage of the complete history of each deal, including storage of information on loan collaterals and on created provisions.
- Reduced the cost of credit products, which potentially will help expand the Bank's business and its ability to support projects for development. It is very important since each percentage point of the cost plays its role;
- Eliminated operational risks and the human factor (no human errors at all stages of the business cycle);
- · Achieved high credit scores with low operational risks;
- Standardized business processes;
- · Achieved flexibility to market conditions;
- Created a platform capable to support the Bank's development at the international market, serving as a foundation for growth.

Financial IT: Dmitry, did you achieve any synergy with the vendor during the project that would add to your mutual benefits?

Powering Partnership

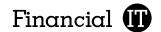
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The situation within the Bank before the project was out-of-date, and the effect of the implementation was much greater than it would be for any other institution. It was a huge breakthrough.

The synergy between Diasoft's and IIB's teams was in the ability to create a team whose members mutually added to each other's expertise. If the vendor lacked something, the Bank could fulfill this, and vice versa. As a result, the Bank obtained Diasoft's solution, and Diasoft acquired a unique expertise in implementation of the international accounting approach and in operational processes.

With FLEXTERA, the IIB got rid of all technological restrictions for the future development of the Bank in any business sector. Today, the IIB has a technological reserve for the next 10 years and all necessary resources for the successful multifold growth. This was the main goal of the Bank's shareholders – to prepare a technological platform for the explosive growth. The business lines of the IIB currently demonstrate this explosive growth, so this task is now considered as fully solved.

Currently, the IIB decided to design itself the new module. This is a key advantage of the FLEXTERA platform – the IIB does not depend on the vendor, and the Bank has a choice as FLEXTERA is a component-based system, which can be easily integrated with any third-party solutions. Moreover, with FLEXTERA, the Bank can develop its own solutions. This means that Diasoft is an open company, which is so strong and so confident of its competence, that it can easily share such tools with third parties.





Daniel Marovitz, COO and EMEA President at Earthport

THE FUTURE OF THE PAYMENTS INDUSTRY IS NOW!

There is little doubt that the business world is changing: out of necessity, out of desire and surely out of the spirit of innovation. The financial industry is at the heart of the cultural, economic and social shift demanding a better way from the people providing the services we need for our work lives.

Human nature tells us that new, "shiny things" often seduce us, but we can also find them intimidating. What is currently happening in financial services clearly demonstrates that the business world continues to reinvent itself.

The financial crisis taught us many things, some of which have informed our thinking about the future, some of which have been ignored. While the banking industry dealt with its numerous problems, a completely new corporate ideology started to emerge and much of it is probing the banks and other segments of financial services.

For example, in the aftermath of the crisis, there has been a lot of intense dialogue about the unbundling of bank services. At the centre of the revolution are Application Programming Interfaces (APIs). It is an acronym that is causing some angst in the financial services sector, particularly among some banks. It has been called a "game changer" and it will certainly alter the landscape and trigger new competition.

Although APIs have been around for a long time, with the advent of cloud computing they have entered a new dimension. The API is an enabler of speed and agility of today's internet start-ups, allowing them to quickly assemble product and launch new services through different third-party components.

Too many people in financial services see APIs as a regulatory or compliance requirement. The perception by market players should really be APIs as a customer product, because it will be the clients that will be ultimate beneficiaries of their use. Software can be constructed using APIs, bringing together disparate best of breed

elements to deliver flexibility, choice and future-proofing capabilities. It is all about the provision of a set of products that meets changing customer habits and evolves with their needs. APIs are going to be the key to the provision and maturation of digital banking. They are an imperative.

APIs are also a useful metaphor for the way financial services will change. The API will allow financial products to be integrated with one another more easily and permit banks to seamlessly adapt major components of their products (which are always a software construct) as new features become available in the market. Banks don't have to build the brakes, the engine and the headlamps, they can also be in charge of the design and choose components from the market that fit their vision. APIs make that process economically viable and operational efficient.

They are also going to transform the way we interact with clients. Many of the new tools and services being created by the dynamic companies emerging through the FinTech explosion can find their way into the complex technology eco-system of large Financial Institutions. The API is the actual technical enabler of FinTech's interaction with banks.

The introduction and necessity of APIs offers an alternative to the way banks have built and managed services. Banks are now coming to terms with the prospect of what this means for them, the new regulatory requirements for access means they must. There is no choice to be made. APIs have already made their mark in other industries and banks now know this same technology can ramp-up efficiencies and innovation and help control costs.

Although APIs will change the system in place today, much bigger questions are being asked of fundamentals like money. To really understand where we are today, you have to go back in time and consider how we have learnt from history, notably the so-called inter-

war years. There were many takeaways from that turbulent period and although things are pretty uncertain today, in the back of most economists and national leaders' minds (particularly in Germany) is the mantra "never again – no hyperinflation, no loss of control".

It's why some unprecedented events are happeningtoday—the absolute commitment to avoiding a repeat of a time when wages were being rolled home in wheelbarrows.

However, we do not really know what the future holds for "money". There is a new kid on the block and it's called Bitcoin. The heir apparent to money? That's a big and ambitious label to put on a virtual currency that is still trying to find its way and its purpose, but it could – just could – be that Bitcoin, or a similar technology, will provide us with some of the answers.

Money is much more complex than it seems on the surface. It is an emotional possession and expression. Currencies gain and lose their value for lots of reasons that are not so obviously tied to interest rates, GDP growth, or even national security.

Would the world be a better place for the adoption of virtual currencies? There is an argument that suggests it might, at least, be more stable with currencies that have money supply driven by mathematics and not emotion – and certainly not political agendas.

Innovations like Bitcoin may offer something that the old fiat currency-driven system can no longer provide. The world probably needs a currency that is not subject to political change, which is instantly acceptable, instantly settled, and electronic in its genetic code. Could such a sea change take place? There is plenty of reasons to suggest it may be logical evolution, although there are obstacles to overcome – not least traceability and convertibility.

If you take Bitcoin as an example, the big problem we are going to have is the fact the system runs on anonymity, and in the intense Know Your Customer world we have entered, implementation is going to be nigh on impossible. The financial system demands we have something that combats the threats of money laundering, terrorism funding and other cybercrimes, and virtual currencies have become viewed as part of the problem rather than the potential-rich solution. They can be both of these things, but it really depends how they are utilised.

Not just technology and financial technology companies are thinking about a new way, either. Just consider that the Bank of England has been speaking about a "digital pound" – the seed would appear to have been planted already. However, it may not gather momentum until the so-called "internet of things" takes shape. It is not so fantastic to imagine virtual currencies being the catalyst for the next stage of technological innovation. This will involve everyday devices automatically making direct payments for the device to service itself – cars that pay for their own petrol, lawns that call their own gardeners based on soil conditions and pre-agreed vendor terms.

The banking sector is obviously part of this and that is why the synergistic relationship between technology and banks will transform and work in tandem to shape money, and society. The money of the future may not necessarily be sitting in your pocket or your wallet, but it will still make the world go round.

But it is a world where much of the received wisdom about the basics of economics is becoming out-of-date, and at the same time, new players are reshaping basic functions. For the children of the analogue world, the advent of APIs and the possibility of money you cannot see, touch or smell, may seem alien, but it is quite probably the shape of things to come. Now, everything we have taken for granted has the potential to morph into something new, exciting and – maybe – just that little bit better. In short, do not rule anything out!



About Daniel Marovitz:

Web entrepreneur and experienced banker, Daniel Marovitz joined Earthport in 2015. With a background in e-commerce, transaction banking, media and enterprise software Daniel is Earthport's Chief Operating Officer and President Europe. Daniel believes that, with the opportunities created by technology innovation and the growing market demand for simple, cost-effective payments solutions, Earthport is ideally placed to lead in this space. He says: "Online has revolutionised the way consumers and businesses consume services and transact. Earthport is changing the game for banks, digital commerce companies and large corporates. I'm excited to be a part of driving the next phase of digital payments."

Prior to Earthport, Daniel was CEO of Faculty of 1000, a software and data publisher for the biomedical industry. In 2011, he founded start-up technology company buzzumi, offering a software platform for secure online enterprise collaboration. Previously, Daniel spent eleven years at Deutsche Bank, most recently as Managing Director, Global Head of Product Management in the Global Transaction Banking division and before that as Chief Operating Officer of the Investment Bank's e-commerce division. Daniel began his career at PC manufacturer Gateway, where he co-founded the Japanese subsidiary and later started Gateway.com.

Daniel is a published author on the topic of e-commerce, a frequent conference speaker on both Internet and banking topics, a founding member of SWIFT's FinTech innovation initiative, Innotribe, a board member of the Professional Diversity Network. Daniel graduated cum laude from Cornell University and is Fluent in Spanish, Galician and Japanese.

PAYMENTS

Maximising the probability that an e-commerce company will say "yes" to a customer

Interview with David Jimenez, Chief Revenue Officer at Ingenico ePayments



David Jimenez,Chief Revenue Officer at Ingenico ePayments

Financial IT: Please introduce yourself.

David: I am Chief Revenue Officer at Ingenico ePayments, the online and mobile commerce division of Ingenico Group.

We bring advanced data analytics, fraud management solutions and cross-border commerce expertise to the fast-changing world of international payments. I handle everything that is related to the customer journey, commercial activity and payments. I've been with the company for three years. And, prior to that, I worked for 12 years at Chase Paymentech, focusing on national and international business development. I've built a very extensive career back-

ground in the e-commerce sector.

Financial IT: We take it, then, that the

expansion of e-commerce across national borders depends on the customer service.

David: That is absolutely right. National e-commerce markets differ very widely from each other in terms of the types of payments, currencies and the complexity of regulations. All these different things have a major impact on the design of the optimal strategy.

What is by far the most important factor, though, is the need to develop the trust of the customer. Without that, everything else is basically irrelevant. This means that, if you're an e-commerce company that is expanding internationally, it is important to partner with a payment service provider (PSP) or foreign bank that clearly has

experience with e-commerce and that has a broad geographic footprint.

Building trust means that it has to be very easy for customers to transact with your e-commerce business. Often e-commerce companies forget basics – such as language. Take the Netherlands – a country that has long been immersed in international trade. Some 99% of e-commerce websites are in Dutch. There is no easy way to translate the pages of the websites into English, French, German or whatever. A foreigner will find it very difficult to complete a transaction.

Building trust means that payment options should be localised. In each country, there are dominant payment options that consumers prefer to use. It's iDeal in the Netherlands, Alipay or UnionPay in China, or Pago Fácil or Boleto Bancário in Brazil and Latin America.

And your website needs to be user friendly. It needs to be easy for the customer to complete a transaction, yet meet all the requirements of the ePayment systems in terms of logins, third party authentication, secured PINs, and mobile notifications. Those requirements might be quite different to what the customer is used to in his/her own country.

Financial IT: What about foreign currencies?

David: Currency is an issue as well. About
75% of e-commerce websites globally focus
on one of four major currencies: the US



dollar; the euro; sterling and; renminbi. That is no problem if the foreign customer lives in a country which uses the currency in question. However, if they live in a country with a different – or slightly less widely used – currency, they won't know how much they are really paying until they receive a bank or credit card statement that quantifies the exchange rate, as well as the fees and commissions that are involved. Trust depends on transparency. Transparency means the customer knowing how much he/she is actually paying, at the time that he/she is undertaking the transaction.

So, my tips are: localise a language, localise the payment options, and localise the currency. If e-commerce companies can do these three things, then Ingenico can help them to make the process easier for their customers. Options include single-click check-out, saved profiles, payments through Pinterest and so on.

Financial IT: How can merchants avoid the risk of fraud and improve security in e-commerce?

David: Fraud is an area that always existed in the retail card space despite all the developments and enhancements, including EMV and other security features, that have been demanded by e-commerce companies. It has become harder for fraudsters to break through the firewalls and capture the secured data from consumers. Obviously, many e-commerce companies have done some fundamental things like tokenising data. But the fraud continues to evolve and to become more complex. Certain fraudsters will always try to penetrate your business environment and capture the consumer data.

As e-commerce companies expand globally, they sometimes fail to focus sufficiently on the potential for fraud. And fraud is an important issue: data breaches may cost a lot of money in terms of fees and fines – aside from the loss of consumer confidence. Data breaches significantly damage trust. E-commerce companies need to have proper fraud departments, anti-fraud plans and contingencies. They need to work with an ePayments provider who can help them in that regard.

The key about fraud is not about saying "No" to a customer who is a potential fraudster: it's about identifying the good customer and saying "Yes" to him/her. So, the last thing I want to do as a merchant is to turn away a perfect customer who spends

large amounts of money with me on an annual basis, declining a transaction because of a fraud result score that arises from the fact that he/she was shopping from a different site, a different location, or at a different time of day. Every time that you decline a transaction, there is a high risk that the customer will not return to your website. And that will badly impact business.

So, dealing with fraud should be a central part of an e-commerce company's international expansion. And that involves recognising that more customers want to transact through their mobile phones, without being delayed by 3D security requests.

Financial IT: How do merchants benefit from payment innovations such as contactless facilities, digital wallets, biometrics, etc.?

David: Contactless facilities seek to make it easier for the customer to complete the transaction – or to deliver less friction. For these innovations to really realise their potential, they need to boost trust. The more that the customer can trust the digital environment, the more valued information he/she will store in it. PayPal is a perfect example of where people put their card data into a stored wallet. Others include Apple Pay, Android Pay, PayPal, AliPay, Squirrel and Neteller. All of them are forms of wallets that allow customers to shop online and to complete the transaction in the easiest way.

This is because they don't need to go through entering the 16-digit card number, the expiration date and some other pieces of data. It's also linked to the customer's preferred method of payment. So, it might not be a credit card, it might be a direct debit option tied to their bank account or debit card account, or some other form of payment. The wallet makes it easier for the customer to reach the checkout. I believe that, in the future, we will see thing more things like the ability to checkout with Facebook or Pinterest.

Amazon represents an excellent case study in this respect. Today Amazon recognises you through your preferred device, and immediately asks you to authenticate yourself. Once you have done so with your username and password, or automatic password, you can actually go ahead, shop, and go straight to the checkout, limited only by the amount of funds in the wallet.

Ingenico is at the forefront of making e-commerce easier for the customer. We

have presence in both the card and the e-commerce spaces. In the card space, we have been known as an innovative developer of technologies in EMV and contactless payments with devices that are used across the globe. We have a presence in the Asia-Pacific, Europe, North America and Latin America, and we are expanding into India and South Africa.

In the e-commerce space, we are also continually looking to innovate through Ingenico ePayments to make it easier for the customer to reach the checkout securely.

Financial IT: And apps?

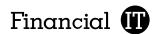
David: Yes, let's talk about apps for a moment. They also make it easier for the customer to reach the checkout, and to make the transaction frictionless. Consider a platform like Uber, where you automatically call for a driver as you check out. Or Airbnb, where you reserve a room, the process is contactless, and relies on mobile technology.

Looking forward, I think that the next innovation in this area will be something that consolidates apps. Already, customers are struggling to decide which apps they will have on the screen of their mobile device. And apps themselves will change. The next generation of apps will be all things to all people. They will include a weather report, a trip adviser and a virtual wallet. Look at what Uber has been doing. Their drivers are deliverymen as well as chauffeurs. They are starting to compete with people like Delivery Hero and foodpanda.

At some stage, there will be a massive consolidation. But while demand is growing at more than 30% annually, that point is currently a long way off.

Financial IT: Where does data analysis fit into all this?

David: E-commerce companies need to be very smart about how they use the data that they glean from their customers. The insights can be the source of a genuine competitive edge. At Ingenico ePayments, we launched an analytical dashboard which tells the e-commerce company about the behaviour patterns of its customers. You can find out how much your business will grow if you make changes – such as localising the currency options. You can see what tweaks you need to make to the fraud rules to maximise the number of customers to whom you say "yes".



IMPROVING THE END USER EXPERIENCE IN PAYMENTS

THE UK'S PAYMENT STRATEGY FORUM

Interview with Paul Thomalla, Senior Vice President for Global Corporate Relations and Development, ACI Worldwide.

Financial IT: Paul, please tell us a bit about ACI Worldwide and your role in the company

Paul: ACI is involved across the entire payment industry and has operated for over 40 years. ACI is pretty unique in the sense that we look at the full eco-systems of retail banks, corporate banks, retailers, merchants and governments. ACI is able do things in a more holistic way than anyone else in the industry partly due to our presence in 80 countries on 6 continents.

I serve as Senior Vice President of Global Corporate Relationships & Business Development at ACI Worldwide. I am also an executive board member of Nexo, the association set up to develop and promote open standards for card payments, and the Payment Strategy Forum (PSF) in the UK.

Financial IT: We know that you were participating in the PSF's meeting that was held on 13th July. What was it about?

Paul: Over the last 9 months the Forum has listened to and worked with the community. The first priority was to identify the problems, or detriments, facing the Payments Community by asking the community for their views.

The Forum wants to put in place the foundations for a new framework for payments, making use of new technologies to deliver a system that is responsive to consumers and businesses, improving trust and simplifying to access for new participants. And, over the longer term, the goal is create a framework that will be agile in addressing the needs of users through competition.

On Wednesday the 13th July 2016 the Payments Strategy Forum shared their strategy and draft proposal for the payments industry in the UK to a meeting of approximately 150 selected Industry players and end user stakeholders. Four major areas were covered:

- End user citizen and corporate detriments and resolutions
- How to increase access to payments by competition
- · Treating financial crime as a UK issue
- Implementation (technology) proposals for the above

I was involved with three working groups – Technology, Financial Crime and End User Experience. The Forum speaks for the payments industry in its totality with no participants openly representing their respective companies.

Financial IT: In its report, the PSF proposed the creation of a single simplified payment platform. What does that mean?

Paul: Creating the simplified payment system is about giving the opportunity for new players to join the market. It will bring competition and innovation that will benefit end-users and other market participants. This is in the context of the UK payments industry which has a lot of very long established and mature payments infrastructure.

Financial IT: Will the platform underpin the Open API system?

Paul: Yes. Open APIs will be necessary to make the changes happen. They are a key discussion topic – especially within the European Union's PSD2 coming into force in 2018.

Financial IT: What will be the impact on ACI?

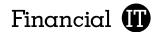
Paul: I'd begin by observing that ACI is very successful in the existing payments environment. Eight out of the 11 largest banks are using our software which is down to our years of experience providing digital gateways. ACI is more than ready to work with Open APIs, as the PSF is recommending and PSD2 will require. Our experience of handing payments in high volumes should stand us in good stead.

Financial IT: Is ACI looking to do anything with blockchain?

Paul: ACI has worked on several internal projects using Blockchain and our experiences have been captured in a paper exploring the 'sweet spot' of Blockchain which is about to be published. Blockchain is an extraordinary technology. However, choosing this technology before it can properly be applied would, in my view, be a mistake. Blockchain can change the industry significantly, but will probably not do so over the next five years. The regulations and industry standards that are needed to create 'trust' do not yet exist. That is something for the regulators to focus on in the coming two years.

I recently participated in blockchain workshops in Geneva, Amsterdam and London. All participating banks agree that a lot more work needs to be done in relation to regulation and testing the technology. Blockchain offers huge opportunities for post-trade settlement and processing, but that is another story.







Christopher Barnard, President at Points

DEFINING THE WINNING DIGITAL WALLET

What is it that consumers look for in a digital wallet?

Despite relatively slow adoption rates among consumers, mobile wallets are continuing to gain traction. In fact, it's predicted that more than half the U.S. population will give mobile payments a try by 2020. And as giants like Chase and Samsung Pay continue to pave the way for digital payment innovations, and independent mobile wallet providers following in their footsteps, an increasing number of mobile wallets will continue to emerge – begging for consumer attention and download.

In order to compete in the digital payments space, mobile wallet providers must capitalize on a number of emerging trends to gain the adoption needed to be viable. A game of survival of the fittest, providers' ability to attract the attention of consumers and rake in downloads, depends largely on their ability to deliver the key components of a well-rounded digital wallet – stronger data security and opportunities for continued engagement to loyalty integrations and capabilities. Subsequently, as the selection of mobile wallets continues to grow, there will be more fragmentation in the space. Wallets will specialize in certain functionalities and capabilities, but for any mobile wallet to succeed, there are a few core components that are necessary – benefits, convenience and security.

While the push for digital wallet adoption has been met with skepticism from many consumers, developing innovations and capabilities of the mobile wallet will continue to drive consumers to embrace digital payments. Here are some trends and innovations on the horizon which are not only addressing the needs and wants of consumers, but setting the precedence for what mobile wallets should be providing:

Increased platform security

For the consumer, few aspects of the mobile wallet are more important than payments security. The feeling that their money is safe, and access to their credit card and banking information is locked down, makes digital wallet adoption that much more likely. Not to mention, there's even greater potential for digital payment habits to form when users feel comfortable with the layers of security their wallet providers put in place.

There are many steps that providers can take to increase the security of their mobile payments platform. From host card emulation (HCE) to biometric security tools that use body parts to authenticate transactions, mobile wallet providers can implement heightened security measures to both gain and retain users on their platform. Incorporating advanced security systems help providers stand a chance at increasing the number of consumers willing to download and engage with their mobile wallet platform.

Additionally, wallets stemming from financial institutions gain much more attention in regards to payments security since they're already in the business of protecting individual savings, credit and other financial assets in consumer's personal lives. Those wallet providers outside of the banking space can avoid consumer skepticism by avoiding directly linking consumers bank accounts. Consumers are more likely to be wary of fraud when financial institution security measures and precautions aren't in place.

Engagement beyond transactions

After security, the next piece of the puzzle for digital wallet providers to grab consumers attention is providing engagement beyond the traditional transaction. Consumers are looking for more ways to utilize their mobile wallets beyond the simplification of their payments. By integrating non-payments offerings, such as linking loyalty cards, boarding passes, IDs, tickets and personalized alerts, digital wallet providers can create even more value by opening new doors for consumer engagement.



About Christopher Barnard:

Christopher Barnard is the President at Points, the global leader in loyalty currency management. Via a state-of-the-art loyalty commerce platform, Points provides loyalty eCommerce and technology solutions to the world's top brands to enhance their consumer offerings and streamline their back-end operations.

One trend in particular that's driving personalized engagement among consumers is the use of mobile wallets as a marketing channel. Digital wallets provide a gateway for marketers to target consumers through personalized push-notifications about their products and services. Made possible by machine-learning algorithms, digital marketers can track consumer's purchasing behavior and other interests to tailor coupons and ads directly for the consumer via their mobile wallets. And consumers are into it. According to a recent mobile wallet engagement survey, 67 percent of U.S. respondents say they're more likely to visit a retailer if they receive coupon expiration reminders when they're close to a store.

Loyalty program integration

Another stand-out trend among digital payments innovation is the integration of existing loyalty programs into mobile wallet platforms. Having increased 26 percent from 2013 to 2015, the number of loyalty program memberships in the U.S. is now greater than three billion. Saying that many of today's loyalty programs have gained the trust of consumers is an understatement. Adding loyalty program capabilities, like the ability to track and transfer rewards, earn and burn points through mobile wallet usage and even geo-targeted loyalty offerings, can give mobile wallet providers a huge leg up on the competition. Not only does mobile wallet integration increase engagement for brands, but it also adds value, convenience and flexibility for the consumer.

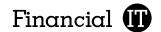
For example, one benefit of implementing loyalty programs across mobile wallets, is the ability for loyalty programs and retailers to provide ease and convenience of earning and burning loyalty points. Rather than digging through a purse or wallet in search of the appropriate loyalty card, consumers can use a mobile wallet to access each

of their rewards balance and account information at transaction. This increased efficiency not only removes the need for physical membership cards, but it also aims to improve overall engagement and loyalty among mobile wallet users by providing convenience a seamless loyalty interactions.

Additionally, the integration of loyalty into mobile wallets is also driving one generation in particular to pick up their phones at payment. A recent study found that 84 percent of Millennials are more likely to use mobile payments if loyalty rewards and discounts are automatically applied. Tech-savvy, connected Millennials expect easy access to information and perks at their fingertips. And that includes communications and access to their favorite loyalty programs. More and more Millennials are embracing the mobile wallet because of it's integration of loyalty programs that are providing convenience and easy access to their loyalty programs, rewards and accounts.and using it to engage with brands. Mobile wallets that continue to make loyalty a priority will undoubtedly catch the attention of Millennials, and other generations alike.

The aim for adoption

Mobile wallet innovation and adoption will continue to be driven by the desire of a more diverse payments platform which extends beyond traditional transactions. Whether the convenience of accessing and securing credit cards and account balances or integrating existing loyalty programs within digital wallet capabilities, providers can implement a number of tactics to stand out and boost consumers desire for mobile wallets and payments. And when it comes to full mobile wallet adoption, consumers who find security, personalized engagement opportunities and access to their loyalty programs, are the ones who will engage.





Debra Walton,

Chief Product & Content Officer at Thomson Reuters.

PAVING THE WAY FROM TRADITIONAL BANK TO FINTECH DISRUPTOR

For me, disruption is a radical form of change that occurs not just when a new technology arrives on the scene, but when a visionary sees potential in it to reinvent or reshape an existing business. The inventor of a new technology is not always the disrupter. Xerox PARC developed the graphic user interface – the computer mouse – but Apple and other companies disrupted the industry with it. Disrupters are not immune to disruption. AOL reinvented the way we communicate, only to be supplanted by better e-mail systems and then social media.

Disruption is not restricted to the consumer world. Global financial services firms are subject to it as well. Recent innovations will not put them out of business, but they are being forced to think differently about how they operate, and what their futures hold.

The biggest disruption in finance is coming on two fronts: digital currencies and financial technology, or fintech. Bitcoin, once seemingly a fringe approach to transferring money, is now seen as a disruptive force that could become widely used.

Meanwhile, fintech firms are paving new ground in mobile payments, peer-to-peer lending and crowdfunding. Banks will need new strategies to deal with all of these disruptive market forces, or to counter with their own offerings.

Platforms and the network effect: Why small firms are big disrupters

Today, an innovative concept can go from a sketch on a napkin to reality almost overnight, and quickly become the "new normal." People used to Xerox a document, now they "Uber it" when taking a car.

How are fintech startups disrupting entrenched industries such as the traditional banking system? Big firms are often losing out

on talent to smaller, seemingly more innovative, startups who offer better employment terms and let them use their creativity. The talent drain from NY to the West Coast is a good example of this as more jobs also require coding and tech talent.

Speed and scale, two key elements of disruption, happen because new entrants are building their businesses on Internet-based platforms hosted in the cloud. Initially at least, these do not require large real estate or staff outlays, and they can be quickly built out if the technology takes hold and grows in popularity. Some platform companies grow incredibly large and still require very little infrastructure; Airbnb and Uber are great examples. Facebook has a market cap of about \$356 billion and 14,000 employees. General Motors has a much smaller market cap, about \$50 billion, yet it operates 400 facilities on six continents, and has about 215,000 employees. Quite a difference.

Large banks more closely resemble GM. They have numerous business lines, each supported by legacy strategies and technologies. Siloed divisions may not interact well, and top executives face a challenge when seeking to understand everything that is happening across the enterprise, and how different business lines affect each other.

Platform startups, on the other hand, are nimble because they focus on one thing, and they do it well (or they do not, and they quickly fold). By the time banks catch up, the barrier to entry may already be too high – not because of the cost, but because newcomers have established their brands and have already infiltrated markets and inked deals with customers.

Aside from their agility and smaller size, platform companies also benefit from what I call the network effect. Users spur growth by spreading the word among their social and professional networks. As more customers embrace a platform, it becomes attractive to others. They join, drawing even more people in what

About Debra Walton:

Debra Walton is Thomson Reuters chief product and content officer, Financial & Risk, where she leads more than 4,000 employees around the world with responsibility for setting strategy and managing operations for Thomson Reuters information and analytics offerings. Walton has been a member of the Thomson Reuters senior management team since 2003 with roles across sales, marketing strategy and product development. Prior to joining Thomson Reuters, she held senior executive roles at Cantor Fitzgerald, Nucleus Financial and Dow Jones Telerate.



amounts to a self-reinforcing cycle of growth. Eventually even the laggards come on board.

Leveraging legacy businesses while thinking like a startup

What can financial services firms do to manage disruption? For one thing, they need to start seeing themselves as platform companies, break down silos, increase transparency and the flow of data, and look squarely at the future. And they can take advantage of their size.

Banks do not need to abandon their legacy businesses and customers, but they do need to pay close attention to shifts in the financial space so that they can begin to anticipate change instead of being forced to react to it. The task is not impossible. Microsoft's legacy businesses are still thriving, but under chief executive

Satya Nadella it's moved forward into cloud computing and other platform areas, even at the risk of cannibalization.

Some banks are already taking steps forward. Deutsche Bank, UBS, Santander, and Bank of New York Mellon recently announced they are working on a digital currency to manage trades through blockchain, the underlying technology for bitcoin. And several large U.S. banks will jointly launch a person-to-person payment service called Zelle, which will compete with products such as PayPal's Venmo. Part of the reason why is that they are being forced to in order to stay relevant. But another part is that they see the benefits coming out of new technologies.

As the world's oldest fintech disruptor, we have seen it succeed and we have seen it fail. And we can categorically say that the financial services firms that will succeed tomorrow are those that recognize opportunities today and work with smart, forward thinking fintechs to enact change and, perhaps become disruptors themselves.

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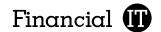


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CGI

Penny Hembrow, Senior Vice-President, Global Financial Services

PROTECT THE BANK

Protect the Bank (PTB) is CGI's response to the challenges facing all banks and most other financial institutions in fighting financial crime in the digital world.

What are these challenges? They are explored in greater detail in our other papers available on www.cgi.com, but include the following:

- · Rising transaction volumes due to volatility
- More tranches of business going real-time through digital transformation
- · Disparate regional approach to regulatory compliance demands
- State sponsored financial crime / cyber crime
- · Customer experience Getting it wrong is not an option

This means that there is more to do – more quickly and more accurately. How can you approach this conundrum without constantly increasing the compliance budget? Most regional or global banks already have very significant teams operating first pass triage. The question is how can financial crime units and compliance be restructured to be more cost-effective, efficient and stronger?

For many years, CGI has been helping to solve these issues for global banks and infrastructure players, as well as many smaller firms. While we have a number of packaged solutions that solve individual issues in this market, PTB is much more than a software product – it is a vision and a framework that can be applied to any major financial institution as a counter to multi-faceted financial crime threats without detriment to the customer experience.

PTB - The Vision

PTB counters threats through dynamic, near real-time, anti-financial crime (AFC) systems that are responsive, technology enabled and, most importantly, work together in sync. To help financial institutions become more efficient and effective, we have to understand each moving part.

While every firm has its own selection of systems that perform checks and perform real-time monitoring of transaction flows, every bank has implemented these differently – with the result that most of the operations are completed in silos throughout the bank.

Before we recommend how PTB can be applied and which components of the framework can deliver benefits quickly, a short scoping engagement is required to perform a current state assessment. These assessments are completed by industry experts located near the bank, whenever possible.

PTB brings together a series of components, or digital enablers, into a framework that can be applied to any firm. Under normal circumstances, PTB does not require the wholesale replacement of core scanning engines or filtering solutions, but rather includes a series of benchmarked enablers that are designed to make the existing infrastructure work better, faster and more accurately. Once implemented, PTB helps drive down false positives across the institution, identify new types of fraud and drive significant efficiency gains.

PTB - The Framework

There are a growing number of digital enablers within the PTB framework. Each one has the potential to deliver significant benefits to the organization. Through the scoping engagement, CGI helps the firm to plan which enablers will deliver the most benefit to the organization and in what order they should be applied. Here we explain the benefit of the top five enablers.

Command and Control Center

This first component in the framework is designed to pull together all of the alerts and hits from the different existing systems in the bank. There are huge benefits to be gained from this component. For example, only by monitoring alerts once they've been collected in one place and

Special Sibos 2016 Issue Featured Story



About Penny Hembrow:

As Senior Vice-President, Global Financial Services, Penny is responsible for CGI's Banking and Insurance capabilities across all geographies. Penny leads the development of CGI's financial services strategy and thought leadership on digital transformation. She chairs the CGI financial services Board which is responsible for 20% of CGI's global turnover. Penny joined CGI in 2009 through the acquisition of Logica. At Logica she was Managing Partner of Transformation & Change Business Consulting, Managing Client Partner for the largest global banking relationship and was a board member of the Benelux business. Prior to CGI, she has held global leadership positions in several major banks during significant transformational change periods seeing through the delivery of commercial benefits ahead of time and within budgets. Additionally she has run and developed new commercial ventures with commercial partners. Penny held Managing Director positions with Deutsche Bank, Barclays Wealth and RBS. She also spent 13 years as a management consultant with PwC. She holds a Finance degree from London University and attended Harvard and London Business Schools.

allocating work in automated queues can banks spot multiple hits in different places originating from the same source. With compliance carried out in silos in most banks, this often is not possible.

The command and control center helps drive efficiencies and adds a new level of protection. As volumes grow, state-sponsored crime becomes more sophisticated, and more areas of the business move to real time, having a command and control center is an essential step for most financial institutions.

Artificial Intelligence and Intelligent Self-Learning

Artificial intelligence (AI) and intelligent self-learning (ISL) are designed to deliver very a quick return on investment, helping institutions that need to deliver a controlled reduction in false positives. ISL, for example, when coupled with a sanctions screening solution, can reduce false positives, often by up to 70%. Further, levels of AI can be introduced to improve other areas of scanning and real-time processing.

Big Data

Big data has a vital and growing role to play in protecting the bank, especially as companies learn more about their available data feeds and understand their data better. In pilots already delivered, CGI has proven that, through the use of existing data feeds, big data can be used to spot new types of fraud based on the use of algorithms, which search for patterns, but are not based on rules. Over time, big data will be more integrated with AI components and will help predict where fraud is coming from, even before it happens.

Cyber Protection

When looking at a bank's sanctions violation, more often than not the violation has been due to an insider who has either abused their credentials or has used stolen credentials to bypass the bank's own processes. These sanctions have led to huge fines from regulators, damage to bank

reputations, and a significant negative impact on the bottom line. At CGI, cyber protection and data privacy is embedded in what we do. To ensure protection of these key processes and compliance areas within the bank, additional cyber controls and components may be needed to add protection and help the bank identify insider threats before they do any damage.

Market Abuse

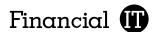
While there is no substitute for real time surveillance of a trading system as part of the control framework, regulators are checking through a mountain of data submitted to them under the guise of trade and transaction reporting. Until now, it has been the regulators who find discrepancies that point towards market manipulation and abuse and who use shop windows to provide insight on how well (or not) a firm is meeting its responsibilities. This often leads to wider investigations.

Intelligent reporting systems head these issues off at the pass, not only by pre-validating reports but also through a swift and accurate triage to get to the root cause quickly. The PTB enabler for Market Abuse brings a single global reporting and management solution to institutions to provide protection both internally, as well as the necessary regulatory reporting in each jurisdiction.

PTB - The Process

To ensure PTB can deliver a real return on investment early in the project, CGI reviews a bank's underlying processes, people and structure. Within an institution, financial crime is everyone's responsibility, so educating and coaching plays a huge part in the cultural shift that is required, in addition to an analyses of technology and processes.

To learn more about PTB, we invite you to book a meeting with us at Sibos 2016 by contacting us at sibos@cgi.com.





THREE TRENDS IN SECURITY

What does the move toward omni-channel financial services involve?

Interview with David Webber, Managing Director at Intelligent Environments

Financial IT: David, please introduce yourself and the company David: I've been running software technology companies for more than 20 years. And I joined Intelligent Environments over four years ago. Prior to that, I spent six years in the capital markets, providing derivatives trading, risk and exchange software systems. The decade before that, I built a business focused on mortgage application processing and servicing software.

Intelligent Environments is the provider of the software omnichannel platform called Interact, which is aimed at companies operating across the financial services vertical. We provide a full set of secure digital apps, mobile and PC solutions. Our customer base is broadand includes Atom Bank, Bank of Ireland, Generali Group, Home Retail Group, Lloyds Banking Group, Motonovo, Think Money and Toyota. We work with all organisations that have a financial relationship with their customers.

Financial IT: You've mentioned omni-channel. What does that mean exactly? And what's the difference between omni- and multi-channel solutions?

David: The answer comes from this question: Qui Bono? – or for whose benefit? Multi-channel banking is a legacy term specifically involving traditional banks who have tried to move business that has historically been conducted in branches online. It is all about what is good for the banks, specifically the reduction of costs and fewer branches in their network. Omni-channel, on the other hand, involves a focus on the benefit to the customer. It involves customer receiving the same experience and brand engagement regardless of what channel they engage with the financial services organisation. And most importantly, omni-channel involves the customer being able to cease engagement through one channel and to shift to another in a seamlessand secure manner.

Financial IT: What are the key industry trends do you see nowadays in the financial services vertical?

David: I think there are three major trends in the industry:

The mobility and mobile-first mindset. What this means is that organisations should be putting their energy into designing mobile apps or figuring out how system or website screens are visible on mobile or tablet devices. They should also focus on how clients use biometrics and finger prints to capture documents, uselocation services, and generally learn from the very best digital providers outside of financial services.

Progressive security. Today many first or second generation digital solutions have one approach to security. We think that security measures will become more progressive. For example a customer may be able to use a banking app for basic activities such as checking a balance with one verification process. However other activities, such as moving funds, might require a second verification process, involving biometrics or a confirmation link. That leads to the third trend:

Artificial intelligence, invisible for consumers but very important for the organisations. This is technology that monitors how you use your financial services app and learns from your prior behavior to identify possible anomalies. Suppose you typically make three-to-four payments a month, and never more than GBP100. Artificial Intelligence will pick up when you start making payments that are larger, or from a different location and use that to trigger alerts or demand additional verification. That is where the extra layer of security comes in. We expect that Artificial Intelligence will be used to boost protection across all channels – and not just mobile. We already have our first generation of this capability in our platform and we call it AppSensor.

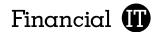
Financial IT: What makes your company different from others?

David: We stand out because of a combination of factors. Security is central to what we do. It is in our DNA. We are certified to the Payment Card Industry Data Security Standard (PCI DSS). And as an organisation we have continuously differentiated ourselves by the introduction of innovations. For instance last year we introduced Emoji Passcode technology. We also recently developed the world's first Internet of Things (IoT) bank which enables people to connect their accounts to a range of smart devices. In the UK we built the first wallet and first financial services app. our platform is agnostic in terms of both back-end technology and delivery channel; we are truly an independent software yendor.

Financial IT: What is next for your company?

David: We will continue the shift our focus from traditional financial service providers to alternative financial service organisations and extend our overseas penetration with our partners. There are always new opportunities with both existing clients and new organisations as they look to deliver greater new innovation and enhanced security solutions for their customers.





Jerry Cuomo, IBM Fellow, Vice President Blockchain Technologies

Blockchain FOR ALL

IBM envisions that blockchain will transform the business models of small and medium-sized enterprises in many industries – and not just those of large financial institutions, as Jerry Cuomo explains.

Blockchain technology has been top of mind for many bankers for quite a long time. Nevertheless, most business people only understand blockchain in very abstract and general terms.

Here at IBM, we have worked successfully with Blockchain-enabled solutions for institutions such as Mizuho Financial and CréditMutuelArkéa.

Blockchain-based solution in practice

Consider, for instance, how we worked with CréditMutuelArkéa, the European bank based in France. Crédit Mutual was really concerned about its customer on-boarding processes, which were inefficient.

Our challenge was to develop a federated system that could bring together all the customer data needed in a way that would dramatically improve those processes.

We looked at their existing network and the applications running their Know Your Customer (KYC) processes. Then we developed a prototype blockchain-based alternative on our Bluemix service.

The first phase of development is now complete, and CréditMutuel has a working platform that they have created with us in our Cloud.

This is an early example of a single KYC and Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) platform that works across an entire, federated business. We are delighted that CréditMutuel has been very satisfied with the results.

Now we are looking to find other partners who can populate the platform with their own customer data. Ultimately, it could become a real network that includes several different institutions.

Three phases of development

For now, interest in blockchain appears to be emanating from particular industries. About 90% of the enquiries that we have received so far from clients have come from the broadly defined financial sector.

We are also seeing interest from organizations that are involved with supply chain management and logistics, as well as with healthcare and governments.

Recently we had the honour of testifying before the US Congress in relation to how national security could be improved with blockchain through greater protection of data and a re-imagining of digital identities.

We are also seeing a lot of enthusiasm in Asia Pacific and have recently established the Innovation Center in Singapore. We are also doing a lot of work in Australia and Japan where we are working with Mizuho Financial Group, for example.

Our work with CréditMutuel highlights how the world has reached the end of the first phase of the development of block-chain.

The first phase has involved companies that are 'blockchain tourists'. They have known that they need to visit blockchain, but have not necessarily found an ideal solution.

We think that we can help them with our cloud-based Hyperledgerfabric. Of course, we need to educate them about the henefits

The second phase of development is just beginning. That involves companies like CréditMutuel actually putting blockchain-based solutions into practice.



About Jerry Cuomo:

Jerry Cuomo is an IBM Fellow and newly appointed Vice President of Blockchain Technologies. In his new role, Jerry is leading the creation of an emerging business unit to define IBM's Blockchain strategy, offerings and customer engagement approach. In 2016 IBM Blockchain is open for business, with the creation and open source contributions to the new Linux Hyperledger Project, the introduction of IBM Blockchain Cloud Services, and the new Blockchain Garages to be opened in NYC, London, Japan and Singapore.

Jerry is known as one of the fathers of the IBM WebSphere software brand, where he served as Chief Technology Officer for 15 years. During this time Jerry's lead efforts to establish key middleware initiatives including; IBM's API Management, Mobile and Cloud Services offerings in Bluemix. Jerry also led acquisitions to accelerate delivery in emerging middleware areas including StrongLoop, Worklight and DataPower.

Jerry continues to be a visible spokesperson for IBM in the emerging technology areas including Blockchain, API Economy, Digital Transformation, Cloud Services and the lean start-up approach to continually address new business opportunities.

The third phase will involve the exchange of data and the trading of assets in large quantities across complex networks of distributed ledgers.

Financial companies that will likely be the biggest beneficiaries of the third stage are those who have to prove compliance with KYC and AML/CFT rules for tens of millions of their customers.

They are the organizations that will best understand how the sizeable investment that they make in blockchain will be worth every cent given the costs and penalties for non-compliance that they are avoiding.

Moving beyond the financial sector

However, we think that a lot of education and development will be needed before blockchain is used most productively by smaller enterprises and outside the financial sector.

For us, the exciting thing about blockchain is its potential to transform the way in which businesses interact – with customers, suppliers, stakeholders and each other – in ways that have not yet imagined.

This is because of the vast number of business-to-business (B2B) processes on which blockchain can impact: supply chain management; trade finance; settlement and clearing of securities transactions; and digital identity management. That is, of course, on top of KYC and AML/CFT functions that matter to financial institutions.

Of course, the challenge is to make the move from potential to reality. At IBM, our Hyperledger Project seeks to develop a block-chain solution that is suitable for both large and small businesses.

The project involves much more than just developing new codes. It includes the education of a future generation of developers and business leaders who are able to exploit all the advantages that the HyperledgerProject offers.

The latest regulations – such as the European Union's Data Protection Directive – are hardwired into the design of the technology. That adds to the technology's appeal.

We have found that blockchain development is an incremental process. If you start looking at compliance or dispute management, you will often see opportunities in other areas, such as KYC or AML/CFT.

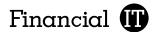
And, of course, the training of the developers takes time. Building networked solutions with distributed ledgers is not like building a web app.

The bottom line is that a blockchain 'big bang' is most unlikely. Rather, the rise of blockchain will be a series of steps: and, over time, those steps taken together will be most impressive. Look for real progress in 2017.

"We relied on IBM methods and expertise to develop within a few months an operational permissioned Blockchain network that provides a complete view of customer identity,"

"The project helped us to understand and master blockchain. Now, we are ready to incorporate this technology in our ecosystem and to consider other client uses."

> Frédéric Laurent, COO Innovation & Operations, CréditMutuelArkéa



Bill Blythe,

Global Business Development Director at Gresham Computing PLC.



BLOCKCHAIN HAS A ROLE TO PLAY, BUT IT ISN'T A CATCH-ALL

Another year, another SIBOS. Just as it was last year in Singapore, Blockchain is one of this year's "hot" topics at SIBOS. I duly expect the predictable frenzy of excitement around the Innotribe hub at any mention of Blockchain, distributed ledger technology and cyptocurrenices.

Blockchain - a silver bullet?

A programmable language, Blockchain provides a way to maintain and verify digital records in 'blocks' that can be shared between parties. Also called 'distributed ledger technology', it enables ledgers to be updated instantly and continuously in any number of locations.

It also has the capacity to do smarter things. For example, it can create invoices that pay themselves when a shipment arrives and automatically pay the owner dividends at the same time. It also offers scale. Blockchain can handle a wide range of transactions, giving banks a new way to complete complex transactions instantly, intelligently and securely.

While it does offer some tempting benefits including the potential to reduce costs, streamline complex transactions and make it easier for regulators to monitor, banks could be in danger of investing too much in Blockchain. Financial institutions still have to evidence controls and consider how trust can be built in to ensure that processes are both efficient and accountable as the technology develops.

The need to reconcile

Blockchain's greatest advantage might also be its greatest weakness – transactions cannot be reversed and the information can never be erased. With up to 1,000 errors in the front office on any

given day, Blockchain does not bring the ability to cancel and correct. This consideration is significant and should not be overlooked.

Blockchain also has substantial implications when it comes to reconciliation. The reality is that the current markets and ecosystems are not set up to accommodate a scenario where there is 'one Blockchain to rule them all'. This would require significant investment by all financial institutions and, frankly, a lot of blind trust.

As a result, we are likely to see the emergence of multiple Block-chain ecosystems. In fact, Euroclear recently estimated that there could be up to 10,000 different systems with one for clearing, settlement and a wide range of other functions.

Trust and control – centralised but not united

With each system using its own messaging standards, this will raise further reconciliation issues. Integration and validation will require its own agile technology just to cope with the data flow. This would require even more investment and also opens up the system to the potential for error.

With each Blockchain differing, organisations will be left asking how they can be confident that they can trust the Blockchain of the other. This could lead to a situation whereby it's one party's word against the other that a transaction has taken place.

Transition management requires care and attention

One solution to fragmentation is that grouping will emerge whereby tier one institutions, for example, share a Blockchain. Moving towards this model must be handled extremely carefully in line with regulatory requirements.

Special Sibos 2016 Issue Featured Story



About Bill Blythe:

Bill Blythe is Global Business Development Director at Gresham Computing. Bill joined Gresham in 2012 to lead the global sales and marketing divisions for Gresham's Clareti platform for Enterprise Data Integrity. During this period, there has been significant growth in revenue and client base. With more than 18 years of experience in the financial technology sector, Bill was previously at SmartStream Technologies, where he held the role of Managing Director for North America and the U.K. Prior to working for SmartStream Technologies, Bill held sales and technology positions at Singularity, Mercator Software (formally Braid Systems) and Misys.

As with the adoption of any new technology, it won't completely eliminate the need for existing checks and balances. There are some transactions for example where peer validation is not enough and internal and regulatory corroboration will be needed – for example, the confirmation / affirmation process.

There may be an element of this meaning the death of legacy reconciliation vendors as we know them. It's likely that commoditised cash and stock type reconciliations will be the first to be on boarded onto Blockchain. But, for more complex needs, Blockchain simply doesn't have the speed or the scalability. Currently Blockchain can process around 7 messages per second compared to more advanced solutions that can handle 50,000 in that time.

If any elements of the transaction flow are outsourced, such as via Bitcoin, organisations must be sure to guarantee integrity between the various pools of data. This is vital to ensuring accuracy and consistency across the whole process.

Past lessons

There is understandably a great degree of excitement around Blockchain, though the industry would be wise to remember that similar initiatives have been proposed in the past. The GSTPA (Global Straight Through Processing Association) was focused on providing central matching of trade details – a dream later resurrected by Omgeo with its Central Trade Manager.

The industry spent millions, yet the programme failed to take off. This was not the failing of the technology, but the result of fragmentation (similar to that which we are now seeing with Blockchain), and reluctance of industry players to use the system.

It may be that Blockchain can avoid the same fate however, with investment managers now moving away from their former 'bunker

mentality' towards change and innovation. At the moment, the sheer number of players jumping on the Blockchain bandwagon, and backing it up with serious investment, does worry me.

While most applications are still in the experimental stages, a number of banks have recently teamed up to develop an industry standard to clear and settle financial trades over Blockchain. I'm not sure it deserves all this attention.

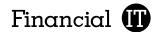
Integrity is vital

The emergence of Blockchain has raised a lot of questions – will it have the power to remove all the middlemen that are party to a transaction? Will it kill the need for reconciliation? Does it mean the end of hundreds of financial sector jobs? The answers are not quite that simple.

Yes, it has the potential to do all these things. But the reality is that financial firms will still need to be able to guarantee integrity between the various flows of data. And that, at least for the time being, will still require middlemen, specialists and reconciliation to ensure accuracy, consistency and a strong level of trust.

It's likely that this will see the emergence of multiple Blockchain ecosystems – but in my opinion this will take years to establish. In the meantime, banks need to be wary that each will present reconciliation issues in its own right.

The most important thing is that the financial sector can guarantee – and be able to demonstrate – integrity between the various flows of data to ensure accuracy consistency and a strong level of trust between different systems. Yes, it has the potential to disrupt legacy reconciliation technology vendors who deal with standardised data flows. But in all honesty? It's not yet doing the tricky stuff.



Leda Glpytis, Director, Sapient



BLOCKCHAIN: MAKING THE WORLD BETTER?

As we come to Sibos 2016 and I prepare to talk about financial technology, it's noticeable that DLT has moved to the mainstream sessions.

This is a good and necessary thing. In the preceding twelve months I don't think a week has gone by without another DLT lab innovation project, consortium or proof of concept being announced. Each comes with proclamations of huge cost savings and great potential, as yet unrealised but due to occur. Probably.

In discussing industry expectations and ideas, we need to be pragmatic in what is achievable without hampering or harming innovation and the delivery of new value. We need to be frank and aspirational. No easy thing and the danger of chasing our proverbial tails is very real.

In fact, what is apparent in having these discussions is that a clear thematic pattern emerges.

Trust

Without fail, the main issue is trust. Even more so after the 'Ethereum Heist' that's bringing out the extent to which folks in this small, yet overpopulated space are talking at cross purposes: the detractors see it as proof that the blockchain is not to be trusted, those selling build-your-own-private-blockchain kits see it as proof that "the other way" will never work.

So once and for all, let's put this one to rest. The blockchain will not make you or others more trustworthy than you already are. It will not make your transactions or exchanges more legitimate. It will just make them more transparent; it will not sanitise your intent, just your record-keeping.

It will make exchanges faster and safer. It will make your processes slicker and your infrastructure leaner. It will make mechanisms of asset, value and information exchange flatter, and banks much less profitable than they once were. No matter where you fall, however, one thing applies to us all: this won't make us better people.

It could also eliminate the need for certain activities specifically managing the fact that you don't trust your associates not to run off with the assets: letters of credit and agency arrangements, elaborate collateral management processes and escrow agreements, tri-party repo and correspondent banking.

You don't need to manage trust, because you no longer need to trust as far as some steps of the process are concerned. Your associates are no more trustworthy than before, which may have been a lot, but you didn't take any chances.

This technology allows you to take no chances without needing a whole host of activity to manage the absence of trust for certain parts of the process. It assumes that needing to trust someone is a stress factor that we could all do without, so it seeks to minimise the need to trust for those parts. And those parts alone.

It makes business easier by managing the "not trusting" process, no by making you more worthy of this trust.

Recourse and reconciliation

Another notion is the idea that transactions or issuance "done on the blockchain" do not require reconciliation causes another query: "What if I make a mistake?"

If you make a mistake, you then call your counterparty or client, or send them a message on the blockchain and say "Oops!" If you input erroneous data into your ledger (and before we go down that rabbit hole, it's possible to add layers of verification before you commit an entry to the ledger, so fat fingers can be accounted for), there's a process for fixing the error. It entails admitting an error and may entail a legal route if the other party says "Tough", but there is a process.

What's no longer there, is the magic 'undo' button that banks became used to. Reversing transactions and recalling trades. With blockchain, intent is not changed but at least we will have the whole thing on an immutable record.

Confidentiality, transparency and client centricity

"There are things we don't want on record." Another precious gem.

The nuances of client confidentiality, market-sensitive data and proprietary information aren't lost on me or anyone else. At its core, B2B banking is a space of big deals and even bigger ledgers. Record-keeping and report production are the main output of the value chain. And the blockchain comes into the midst of this and says, "Chain, yes. Value? Not so much," and reduces complex activity and associated profitability to plumbing.

This is uncomfortable, yet simple. The technology behind it, however, comes with a certain degree of complexity.

People seem hell-bent on understanding this technology in a way they never sought to understand any technology before. And this is commendable and moving us closer to a time when the CEO and CTO will not be two people. Closer, but not close, because in attempting to understand this, what folks uncover is the depth of their ignorance around how their current systems work. They are trying to understand calculus having slept through arithmetic. You can learn, but learning takes patience and effort. There are no shortcuts.

And questions about trust and the vagrancies of human nature are deflectors, really, away from the discomfort of "What will I do for a living in this brave new world?".

To understand what to do with the blockchain other than experiment with it in snazzy laboratories, we need to get uncomfortably close to how we deliver value today (bits and bytes and mainframes) and what value our client extracts for the furtherance of their business. This is business sense. This is client-centric thinking. This isn't technology, but without a doubt it is powered by tech and in turn leads to better tech.

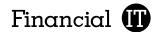
In getting closer to how you do what you do and what your client really gets out of it, a whole host of business-enhancing side effects will be realised. You will become better at fulfilling client needs. You will better understand what your systems do, what their endemic limitations are, where the weaknesses are and how to fix them.

There is much to discuss still and much of what is now known, will change. But there is even more potential in the new value that could be created with DLT at its core.



About Leda Glyptis:

Leda Glyptis is a Director at Sapient Global Markets working within the transformation/strategy capability. Leda joined Sapient from BNY Mellon, where she served as regional head of innovation. Leda was focused on articulating and delivering a digital value proposition to clients and developing a meaningful FinTech strategy for the firm. Most recently, Leda established the EMEA Innovation Centre, dedicated to rapid prototyping of ideas harnessing capabilities across BNY Mellon, clients and startups to create a 'new new' value proposition. Before BNY Mellon, Leda served as Head of Services Development for a software boutique in the City of London. Leda holds an MA from King's College, Cambridge and an MSc and PhD from the London School of Economics and Political Science.





Dave Kasabian, Chief Marketing Offer at Tagetik

REPORTING AUTOMATION IN THE CONTEXT OF CHANGING LANDSCAPE

Not that long ago the scope of financial reporting was only about reporting financials. But today the financial information is only part of the story. Certainly financial information is still the core of all financial and corporate reporting. But now, these reports must not only communicate more than the financial condition of the company. At the same time new regulations require more data, from more sources, that need to be prepared in a shorter timeframe, for a larger audience than ever before. This creates the need for the Office of Finance to bring

together a complicated collision of multiple documents, communication streams, data sources, software applications and technologies. The finance organisation must retain control, accountability, and visibility over financial reporting while adapting to increasing regulatory requirements and the demand for greater access to more financial information by more stakeholders (both internally and externally).

Fortunately, technology advancements allow companies to automate the combining together of disparate financial and operational information, verify the validity and control the usage of this data.

Finance organisations are getting more and more requirements from regulators that require more granular data than in the past. They are also getting more demand from internal stakeholders for more summarised, visual, mobile and interactive formats. According to Dave Kasabian, Chief Marketing Offer at Tagetik, "Finance has this additional burden but not the additional resources to deal with it. So, they need to take advantage of technology to automate the



About Dave Kasabian:

As CMO, Dave Kasabian is responsible for Tagetik's global marketing strategy including brand and product positioning, content creation, creative, public relations, lead generation, and digital marketing. Dave joined Tagetik in 2011 as the Corporate Vice President of Product Marketing and prior to being appointed Chief Marketing Officer held the role of Senior Vice President of Product Marketing and Strategy. Prior to joining Tagetik, Dave worked as a Research Director at AMR Research (now Gartner) and spent more than 13 years at Corporate Performance Management software vendors in various management positions including Product Marketing, Product Management, Implementation Services, and Channel Alliances.

data collection, workflow, collaboration and controls that give them the confidence and control to take on many internal and internal reporting from the same trusted source."

In today's era of big data it's especially important to have complete visibility of all the financial and business processes together with deep analysis of its effectiveness. According to Mr. Kasabian, many companies are embracing the cloud to equip their finance organisations with the best of both worlds - secure reporting and complete visibility into the financial health of the organisation expressed in numbers and graphs accessible via the cloud and mobile devices.

"The use of cloud in the budgeting and planning process is quite common, almost standard, today. But the bigger trend we are observing is that financial organisations, even very large ones, are broadening their cloud focus across all of their finance processes – including consolidation, financial and management reporting, modeling and analytics, and disclosure reporting. Private cloud is definitely getting traction among really large enterprises that previously would

only consider on-premise in the past."

The heightened regulatory standards such as Basel III, Solvency II, expanding IFRS requirements or FinRep impose a lot of routine and manual tasks on the finance officers in tight timeframes. Moreover, companies also need to do analytics on processes and profitability. The ability to address all of these from one platform and one set of common data is the key to efficiency, accuracy and reduced risk. That's exactly one of the reasons why cloud based corporate performance management and reporting solutions unified in a single platform become a widespread use.

In many cases the delays in the execution and other problems hindering the growth of business happen for the reason of miscommunication or lack of timely coordination between those employees or departments that participate in the reporting process. Consolidation of multiple business processes in the single source through the cloud keeps everyone on the same page with the ability to look at it their own way. Collaboration, consistency and accountability strengthen the team

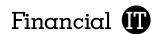
spirit in the task priorities and execution. Moreover, the online reporting together with performance analytics significantly contributes to the collaborative office environment of the organisation.

"Technologies like cloud computing, inmemory or mobility are transforming the way finance does its job as well as the way financial information is consumed. And our role at Tagetik is to stay on the leading edge of that, giving the necessary technology to finance, but doing it in the context of the changing landscape. We give organisations confidence to expose the information to more consumers without putting the organisation at risk of losing control of the information. The very important aspect we are seeing is that new regulations are also requiring much more granular level of data. So, finance officers will be responsible for much more data in the future then they have in the past. In the era of big data it's particularly crucial to liberate finance from the burden of being an Excel or IT integration guru. We focus on releasing the finance team from the tactical aspects of reporting so they can focus on the business aspects of reporting," concludes Kasabian.



HERDING CATS

HOW TO BEST MANAGE THE EXTERNAL REPORTING PROCESS



BOLERO DIGITIZES GLOBAL TRADE FINANCE MARKET

Interview with Ian Kerr, CEO, Bolero International

Financial IT: How would you define the "trade finance"?

Ian: Because our trade finance solutions cover such a wide range of applications – from exchanging data and documents to cloud-based communications and controlling an organisation's trade finance positions – we define "trade finance" in a very broad sense. To Bolero, trade finance simply means any activity surrounding the funding and settlement of contracts between buyers and sellers.

Financial IT: What are the recent trends shaping the industry nowadays?

Ian: There is no doubt that the world has been experiencing a few challenges recently. The decline in commodities prices spurred by the relative slowdown in growth of the Chinese economy has put pressure on global traders and their finance providers who themselves have issues with compliance and historic low interest rates to deal with. All this does not mean that global trade has stopped – far from it – China is still growing at a significant rate and we are seeing lots of opportunities there hence our opening of our own office in Shanghai. However, there is a lot of work still to do in the digitization of trade and supply chain finance to enable greater efficiencies that will support additional growth.

Financial IT: Which fields does Bolero serve most actively?

Ian: Bolero's digital trade financing solutions are used in a wide range of sectors. The key focus is on facilitating transactions between corporate buyers and sellers – nothing happens until a deal is done – then other involved parties such as banks, carriers and logistics providers become involved in the process and Bolero brings them together electronically and securely.

Financial IT: What are the key challenges that Bolero is solving?

Ian: The challenges our clients face vary quite a bit depending on which sector they operate in, and where they operate within that sector. Corporate sellers want to complete transactions quickly and efficiently to gain visibility and certainty of revenue to improve working capital. There are also benefits to be gained by buyers as they too have costs in processing and the move to digitization offers them efficiencies and certainty of transaction completion. For all the saying that 'time is money' is very relevant. The banks are looking to support corporate transactions and need to be integrated with the digitised process securely and in accordance with their compliance considerations. Carriers have their own challenges right now with pressure on pricing in a very competitive market. They need to show that they can comply with digital best practices that in turn deliver operational benefits to them too.

Additionally, and this is true for clients across all sectors, digitalisation brings increased security and the ability to audit and track all

transactions, thereby reducing the risk of fraud and regulatory noncompliance. This allows them quicker and easier access to finance.

Financial IT: How competitive is the trade finance technology market?

Ian: First of all, as we are at a comparatively early stage in the digitization of trade finance, competition is a very good thing as this means there are multiple organisations out there educating the market. There are many companies operating supply chain finance platforms and there are a smaller number who digitise traditional documentary credit instruments. Bolero differentiates in this competitive landscape as we uniquely can support these traditional trade transactions but also open account and other settlement types and the electronic presentation of key trade documents such as the electronic Bill of Lading.

Financial IT: What are the key capabilities of Bolero solution?

Ian: Bolero has some core capabilities that enable us to meet our clients' needs and differentiate in the market. Firstly, our solutions are built on a secure and scalable core messaging platform, security and data integrity are an absolute must. Bolero was designed from the outset as a solution that can be integrated with adjacent space applications and networks and this is pivotal for the realisation of end to end digitization. Our solutions are underpinned by a rulebook which is a non-technical component, but a very powerful one that delivers certainty and confidence across the Bolero network. The Bolero title registry controls the transition of ownership of goods as a transaction completes and finally we have a highly flexible matching engine that can confirm transaction validity through data interaction across settlement types.

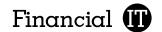
Financial IT: What do you envision for the future of your slice of the industry?

Ian: The benefits of digitization become greater as more parties become involved. This includes corporates, banks and carriers but also governments, as infrastructure and regulation have a tremendous impact on international trade.

We've seen a major shift over the past decade, brought about by the increasing competitive pressure from all types of trade partners. More organisations are beginning to embrace digitization, and as time goes on the benefits of doing so will continue to become increasingly greater than the challenges involved.

These benefits include greater security, a reduction in the risk of fraud and the ability to globalise their operations and emerge in new markets with new trading partners. At Bolero we have a clear vision of this future world and if we continue to deliver on our plans and support our customers and partners as well as we can we are confident that the company can play an increasingly important role.







Andy Archer,

Regional Vice President Sales UK at Epicor Software

CAN TOUGH ECONOMIC CONDITIONS ACTUALLY BE A BLESSING IN DISGUISE FOR BUSINESSES?

While economic uncertainty is never a desirable situation, it's a fact that some of the world's greatest businesses have started during a downturn or recession. Indeed, of the 100 companies listed on this year's Forbes America's Most Promising list, around a third were forged in the doom and gloom years of the global financial crisis.

How did these companies achieve extraordinary growth when others were in freefall? In this article we'll take a look how businesses can overcome difficult economic conditions by better planning and the deployment of agile technology.

Industry challenges

While the wider economy struggles with uncertainty, the manufacturing sector in particular has stagnated. Indeed, last quarter it wasreported that UK manufacturing has actually fallen back into recession for the third time in eight years. The woes of factories show no sign of abating after enduring 12 months of falling output.

A good proportion of this can be attributed to the difficult world economy with rising costs combining with reduced demand, the ongoing effects of the cutback in oil and gas investment and the steel crisis. On top of this, the UK vote to leave the EU raises long term concerns about growth of the global economy.

Economic cycles are a reality but the challenges and economic pressures on the manufacturing sector are distinctive to this part of the economy. This period of downturn is, however, providing opportunities for companies to emerge on top.

Smart manufacturing

There are big changes happening in manufacturing through digital transformation. This fourth industrial revolution, or 'Industry 4.0' as it is commonly referred to, is explained as a way of increasing competitiveness through the convergence of the manufacturing

process with technological and innovative applications and processes resulting in a merging of the virtual and physical worlds.

McKinsey recently published a report which stated that the digital revolution is now breaching the walls of manufacturing as it continues to disrupt media, finance, consumer products, healthcare, and other sectors. It commented that "the explosion in data and new computing capabilities – along with advances in other areas such as artificial intelligence, automation and robotics, additive technology, and human-machine interaction – are unleashing innovations that will change the nature of manufacturing itself."

The problem is that manufacturing companies have traditionally been slow to react to the advent of digital technologies across the manufacturing value chain and operating model. While there are a few manufacturing companies that have made rapid advances in deriving significant benefits from digital software such as enterprise resource planning (ERP), their number is still small.

It's time for a new approach. Manufacturers should be working now to build an agile platform that will allow them to adapt to future customer requirements. Organisations that embrace the latest technologies – from mobile to scalable integrated platforms and from SaaS to next gen analytics – will be able to jump on the wave of economic recovery when it arrives.

Improving visibility

The pressure on manufacturers to accelerate production cycles and become more customer centric is driving change, although perhaps more slowly than people have predicted. A key factor in this is the extent to which companies are restricted by the lack of visibility they have over an organisation's core processes.

Manufacturing generates more data than any other sector of the economy, with an abundance of operational and shop floor data that can be used to increase yields and reduce costs. The problem



About Andy Archer:

Andy Archer joined Epicor Software in 2016 and brings with him over 18 years' experience from various roles in the enterprise software sector with 10 of those in the manufacturing industry. Andy is responsible for the manufacturing software sales for Epicor in the UK and Ireland, comprising of the company's full range of solutions, including Epicor ERP, Epicor BisTrack, Epicor Tropos (process manufacturing), and Epicor Mattec MES sales teams.

Andy has a wealth of executive level expertise in managing global software operations including marketing and sales execution, product design and development, project delivery and customer support. Prior to joining Epicor, Andy was Senior Vice President and General Manager at GuestLogix EMEA from 2013 to 2016. Prior to this he was responsible for leading the Pricing and Revenue Management business unit of JDA Software for seven years. Andy has also held senior leadership roles at Manugistics. Talus and SSA.

is that few companies are harnessing it. Last year, one oil-and-gas company was reported to be discarding 99 percent of its data before decision makers have a chance to use it.

Manufacturers are increasingly realising the need to adopt technologies that allow them to transform their operating models and digitally connect processes, events, actions, internal and external partners. Introducing software such as ERP can drastically improve the visibility of the whole production process, resulting in efficiency savings across the organisation.

Take, for example, inventory management processes. Central to ensuring inventory usage is maximised is the ability for manufacturers to increase visibility of all inventory levels. This includes static materials and maximising the value of, and gaining real-time visibility into, inventory in-transit.

Dutch solid wood systems manufacturer, Derako, is a great example of data best practice. The company benefits from an integrated ERP system with an intuitive dashboard for wood procurement which improves the purchasing process and saves considerable man-hours. The system makes intelligent procurement recommendations when it is running low on items like foil, nails, and doweling, providing the capability to respond quickly to market changes, customer requests, and stock levels.

ERP has effectively provided Derako with the necessary agility to become more customer focussed and competitive. The fact that the company can make decisions at the front-end of the business (customer) that automatically ripple through to the backend (procurement and accounting) without manual intervention, ensures that they can provide the economic flexibility required to be truly customer-centric. In a world where markets are stagnating or declining, it is the businesses that use technology to combine efficiency with customer-centricity that will prevail. These are, after all, the businesses that can provide customers with maximum flexibility and choice at a low cost.

Ensuring growth through investment

Downturns force businesses to become smarter in order to compete with, and outperform, their competitors. Coming out of the last global economic downturn, the most successful companies have made progress in boosting competitiveness through efficiency and flexibility.

Companies should be looking to invest, drive efficiency, increase productivity, and increase market share now. While the effect may be small during slow times, it could help them survive and the effects will then be magnified as the economy recovers. Companies that wait until economic recovery before they invest could be months or years behind.

Younger businesses have an advantage in this context because of their inherent agility. Nevertheless, agility doesn't have to just be the domain of the small or the young. A list of the top ten lean manufacturing companies in the world, which includes top brand names such as Nike, Intel and Ford, shows the extent to which the implementation of these technology-driven initiatives helps even the largest companies achieve success.

Throughout the manufacturing sector, we're seeing advances in technology that are proving to be the fundamental linchpin shaping this new business model. Technology systems like next-generation ERP give operators at all levels accurate and timely information with which to make informed decisions.

As a result, smart manufacturing businesses are investing now, with the needs of tomorrow in mind. They are also making better use of the technology investments they have already made to jump ahead of competitors and spot new market opportunities. This trend is despite, and in many ways because of, the industry downturn.

The journey is well underway from the long-outdated oil-andoveralls image to a modern and highly innovative sector.



TOP NEWS

<u>Urban FT reveals breakthrough technology</u> for financial institutions

Date: 09.09.2016 #Mobile Banking

Urban FT, provider of the industry's most compelling white-label digital banking platform, announced from FinovateFall 2016 the availability of the Urban FT Workshop management portal, a breakthrough technology that enables financial institutions to create custom digital banking programs within hours and, after deployment, to manage and make real-time dynamic changes to their programs' branding, features, and functionality – at any time, on the fly, without coding or involving developers.

"Technology has leveled the financial services playing field by neutralizing the long-held locational advantages of big banks," said Richard Steggall, CEO of Urban FT.

Huawei and Infosys offer new financial cloud solution to empower bank 3.0

Date: 06.09.2016 #Cloud

Huawei announced a new innovation from its industry collaborations in the financial sector: the New Financial Cloud Solution for Mission Critical jointly developed by Huawei and Infosys Finacle, designed to ease some of the IT challenges of the finance and banking sectors. The new innovation is based on the Huawei FusionCloud platform and the world's first 32-socket Mission Critical server KunLun, integrated with the world's leading banking system – Infosys Finacle, which includes its entire suite of products such as core banking system, online banking, mobile banking, customer relationship management (CRM) and wealth management. The best-in-class technology has been specifically designed to help financial institutions reduce total cost ownership (TCO), improve agility, and accelerate digitalization.

Nequi aims to build a new way of accessing money

Date: 31.08.2016 #Security

Nequi is shaking up the banking sector in Colombia with an innovative platform and offering account access exclusively through a user's mobile device using the convenience and security of biometric authentication. Customers will enroll their biometrics immediately upon opening their account as Nequi guides them to a new age of fintech services. Nequi is using Daon's IdentityX Platform for mobile biometric authentication and will be the first financial institution in Colombia to feature biometrics in live production. Starting with facial recognition, that includes "liveness" techniques, Nequi customers will authenticate with a selfie whenever they change devices or SIM cards, reset passwords, or reactivate an account.

Barclays & Wave complete world first blockchain trade finance transaction

Date: 07.09.2016 #Blockchain

Barclays and innovative start-up company Wave have become the first organisations to execute a global trade transaction using block-chain technology.

Wave was one of eleven companies to have gone through the Barclays Accelerator programme in New York last summer, during which time it received expert mentoring from the bank. Since then it has been working with Barclays' Trade & Blockchain team in the UK and South Africa to explore the various use cases of its innovative technology. Barclays is also seeking to involve other banks in supporting adoption of Wave's system, with the hope that this can develop into an industry wide improvement in how trade documentation is managed.

HSBC allows customers to verify their bank accounts with selfies

Date: 05.09.2016 #Authentication Technolog

HSBC UK business customers will enjoy a streamlined account opening experience following the launch of 'selfie' verification, giving businesses the option to complete ID security checks on their mobile device.

Available now, this latest digital enhancement simplifies the way businesses open an account by allowing ID verification to be securely completed in a few clicks on an Apple or Android device.

The 'selfie' mobile application has been introduced to better meet the changing banking behaviours of customers, specifically their preference to use digital and online channels.

Exchange4free reveals 'Money Messenger'

Date: 30.08.2016 #Payments

Exchange4free, a leading global money transfer, forex and payment services provider, have launched a new, exciting and industry-first product and chat app called 'Money Messenger' – Chat. Send. Save.

The app allows clients to send money to over 100 countries worldwide via an instant messaging platform from as low as 0.4% with no transfer fees or commissions.

Exchange4free are leading the way in global innovation within the remittance industry by offering clients static, dynamic and interactive user experiences via an Instant Messaging app. Clients can send money to over 100 countries worldwide including bank deposits, cash payouts at over 200,000 locations and mobile wallet credits.

Special Sibos 2016 Issue

DEALS

Suncrest Bank to acquire Security First Bank

Date: 02.09.2016

Suncrest Bank and Security First Bank announced that they have entered into a definitive agreement whereby Security First Bank will merge with and into Suncrest Bank in a cash and stock deal, valued at \$18.1 million, based on a per share valuation of Suncrest Bank stock of \$8.25. The transaction combines two local community banks with strong customer relationships in their neighboring markets of Visalia and Fresno, and approximately \$425 million in combined assets. The merger is subject to customary closing conditions, including the receipt of all regulatory approvals and the approval of the shareholders of Security First Bank.

<u>TerraPay expands its global presence through</u> <u>acquisition of Pay2Global</u>

Date: 29.08.2016

TerraPay, a mobile-first international network, a company incubated by Mahindra Comviva, announced today it has completed the acquisition of UK-based Pay2Global Limited, following regulatory approvals. In an outright purchase, TerraPay has acquired 100% of Pay2Global for an undisclosed amount.

Pay2Global is a regulated digital international money transfer company with passporting rights into the European Economic Area (EEA). The acquisition helps TerraPay instantly scale its service footprint in the 32 countries of the EEA, accelerating growth by expanding the reach and the range of its money transfer products.

Accenture to acquire australian security company Redcore

Date: 23.08.2016

Accenture has entered into an agreement to acquire Redcore, a privately held Australia-based consulting company that specializes in providing identity and access management services (IAM), as well as security services for Cloud, network management, public key infrastructure, cyber defense, applications and the internet of things. The acquisition is subject to customary closing conditions. Financial terms are not being disclosed.

As part of its offerings, Redcore develops holistic authentication, authorization and administration services across a range of cloud, web, mobile and adaptive access-management technologies.

KKR reports acquisition of Calabrio

Date: 30.08.2016

Calabrio, a leading provider of customer engagement and analytics software, and KKR, a leading global investment firm, announced today that they have entered into a definitive purchase agreement whereby KKR will acquire Calabrio. Financial terms of the transaction were not disclosed.

Founded in 2007, Calabrio provides products and services to help companies better understand their customers and leverage insights to catalyze growth. The Calabrio ONE(R) software suite is a unified workforce optimization (WFO) solution – including call recording, quality management, workforce management and voice-of-the-customer analytics – that records, captures and analyzes customer engagement center interactions to improve the customer experience and drive top-line business growth.

Olik completes acquisition of Thoma Bravo

Date: 23.08.2016

Qlik, a leader in visual analytics delivering intuitive solutions for self-service data visualization and guided analytics, today announced the completion of its acquisition by leading private equity investment firm Thoma Bravo, LLC. Under the terms of the merger agreement, Qlik shareholders are entitled to receive \$30.50 in cash for each share of Qlik common stock they hold.

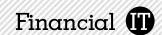
The transaction was announced on June 2, 2016 and received approval from Qlik shareholders on August 17, 2016. As a result of the completion of the acquisition, shares of Qlik common stock were removed from listing on The NASDAQ Stock Market LLC ("NASDAQ"), with trading in Qlik shares suspended prior to the opening of business today.

XURA reports completion of acquisition by affiliates of Siris Capital

Date: 20.08.2016

Xura, Inc., a leading provider of digital communications services, today announced the completion of its acquisition by affiliates of Siris Capital Group, LLC ("Siris" or "Siris Capital") in a transaction reflecting an equity value of approximately \$643 million.

The transaction, which was initially announced on May 23, 2016, was approved by a majority of Xura's shareholders on August 16, 2016. In connection with the closing of the transaction, the company, which will continue to operate as Xura Inc., will be wholly owned by affiliates of Siris Capital.



PEOPLE MOVES

BNP Paribas investment partners appoints James D. Dilworth as Global Head of Sales

Date: 09.09.2016

BNP Paribas Investment Partners announces the appointment of James D. Dilworth to the newly-created role of Global Head of Sales, to further the development of its global business.

Until recently, James worked at Deutsche Bank as Chief Executive Officer Germany for Deutsche Asset & Wealth Management Investment and Global Head of Active Asset Management. Prior to that he held various executive and business development roles at Allianz Global Investors.

James takes up his new role on 12 September. He joins the Executive Committee and will report to Frédéric Janbon, Chief Executive Officer of BNP Paribas Investment Partners.

OPUS names Emanuele Conti as Chief Executive Officer

Date: 06.09.2016

Opus Global ("Opus"), the leading provider of SaaS-based compliance solutions, announced today the appointment of Emanuele "Manny" Conti as Chief Executive Officer. Conti brings more than 20 years of leadership experience in the risk management and data analytics industries, with a proven track record of building global growth-oriented businesses. He was most recently CEO of Kroll Inc. and before that, President of the North America and International divisions of Dun & Bradstreet.

IGTB appoints new Head of Pre-Sales for APAC

Date: 02.09.2016

Intellect iGTB, the organisation behind the world's first comprehensive global transaction banking solution, has appointed Parag Ekbote to the role of Head of Pre-Sales, APAC. Parag brings more than twenty years of experience in senior customer facing roles across transaction banking and lending. Parag joins iGTB from Misys, where he headed the business solutions group for transaction banking covering Asia Pacific, China, Japan, Australia and New Zealand. Prior to this he spent over a decade at Fundtech, where he was responsible for leading global sales and pre-sales of the cash management products.

PayPal appoints Paul Parisi as head of Canadian business

Date: 07.09.2016

PayPal announced the appointment of Paul Parisi as the new general manager of PayPal Canada, effective today. Paul is a results-focused Canadian leader who joins PayPal with a strong record of more than 17 years in the payments industry.

As general manager, Paul will be focused on building on the company's successful 10-year history in Canada and driving the next phase of growth for the company and its customers. He will play a critical role in bringing innovations to market and further solidifying PayPal as one of the leading online and mobile payment services in Canada.

Multifonds names Keith Hale as new CEO for next stage of growth

Date: 06.09.2016

Multifonds, the leader in single-platform, multi-jurisdictional investment fund software, has today announced the appointment of Keith Hale as its new CEO.

Hale will assume the new role, as Multifonds moves to the next stage of growth in continued expansion into new markets as well as increasing the asset class and fund structure coverage of its fund administration software. He replaces former Multifonds CEO Oded Weiss, who will retain a strategic advisory position providing senior counsel to key clients on global initiatives. Sern Tham, Multifonds' global head of R&D, and the rest of the management team remains unchanged.

Rabobank welcomes Gregory Hutton as new Regional Head of Project Finance

Date: 30.08.2016

Rabobank recently announced that Gregory Hutton has been appointed as the new Regional Head of Project Finance, Americas, based in New York. Mr. Hutton replaces Thomas Emmons, who is leaving a career in banking to pursue other investing activities in renewable energy and sustainable infrastructure.

Mr. Hutton has been a senior member of Rabobank's New York Project Finance team since 2012 where he has played an integral role in building the Project Finance business, negotiating, managing and closing many key deals for the bank.

Financial IT

Financial Technology Buyers' Guide

Special Sibos 2016 Issue



Chain is a blockchain technology company that partners with financial firms to build and deploy blockchain networks that transform markets. Chain has formed strategic partnerships with leading financial services firms like Nasdaq, Visa, Citi, Capital One and Fiserv. Chain develops and maintains the Chain Open Standard, an open source blockchain protocol for high-scale financial applications. Chain's platform includes Chain Core, an enterprise-grade production node, and the Chain Sandbox prototyping environment. Chain has raised \$45M from leading venture capital firms and strategic investors. The company's board of directors includes the former CEO of American Express as well as one of the founding executives of PayPal.

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6	Systems
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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 Eximbills, 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 type	Privately Held	
Annual turnover	Undisclosed	
Number of Cus- tomers Total	Undisclosed	
Number of Employees	25-50	
Inception	2014	
Geographical coverage	Global	

COMPANY CONTACT DETAILS		
Contact	Fleur Sohtz	
Job Title	Chief Marketing Officer	
Contact address	292 Ivy St, Unit E San Francisco, CA 94102 United States	
Telephone number	347-947-0143	
Email Address	fleur@chain.com	
Homepage address	www.chain.com	

COMPANY PROFILE		
Company type	Private Company	
Annual turnover	Undisclosed	
Number of Cus- tomers Total	+200	
Number of Employees	Undisclosed	
Inception	1983	
Geographical coverage	Europe, the USA, Asia, and the Middle East	

COMPANY CONTACT DETAILS		
Contact	Pedro Ramos	
Job Title	Deputy Managing Director, China Systems USA and Canada	
Contact address	90 John Street, Suite 306, New York, NY 10038 USA	
Telephone number	+1 (212) 349-2565	
Email Address	pedro@chinasystems.com	
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.

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COMPANY PROFI	LE	COMPANY	CONTACT DETAILS
Company type	Corporation	Contact	Penny Hembrow
Annual turnover	\$10 billion	Job Title	Vice-President, Global Banking
Number of Cus- tomers 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

COME	Pass	PLUS
Tradition		

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 PROFI	LE	COMPANY (
Company type	Limited Partnership	Contact
Annual turnover	Undisclosed	Job Title
Number of Cus- tomers Total	Undisclosed	Contact address
Number of Employees	Undisclosed	Telephone number
Inception	1989	Email Address
Geographical coverage	Global	Homepage address

COMPANY CONTACT DETAILS		
Contact	Bethan Cowper	
Job Title	Head of Marketing and PR	
Contact address	9 The Triangle, Enterprise Way, NG2 Business Park, Nottingham, NG2 1AE, UK	
Telephone number	44 (0) 115 753 0120 44 (0) 115 986 4140	
Email Address	b.cowper@compassplus.com	
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 type	Private Company	
Annual turnover	Over £ 1 Million	
Number of Cus- tomers Total	over 15	
Number of Employees	Less than 10	
Inception	2006	
Geographical coverage	UK, US & Asia	

Special Sibos 2016 Issue

COMPANY CONTACT DETAILS		
Contact	Karim Ali	
Job Title	Managing Partner & Co-Founder	
Contact address	Holland House,4 Bury Street, London, UK EC3A 5AW	
Telephone number	44 (207) 220 6561	
Email Address	kali@cymba-tech.com	
Homepage address	www.cymba-tech.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 type	Sole proprietorship
Annual turnover	2014 results: 69.2 Million Dollars
Number of Cus- tomers Total	400
Number of Employees	1,600
Inception	1991
Geographical coverage	Asia, Europe, Russia

COMPANY CONTACT DETAILS		
Contact	Sergey Metelskiy	
Job Title	International Sales Director	
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Telephone number	7 (495) 780 7577	
Email Address	info@diasoft.com	
Homepage address	www.diasoft.com	



CustomerXPs is an enterprise software product company offering Enterprise Financial Crime Management (EFCM), Anti-money Laundering (AML) and Customer Experience Management (CEM) products for Tier-1 global banks. CustomerXPs is revolutionizing Fraud Management and Customer Experience Management in Fortune 500 banks by harnessing the power of extreme real-time, cross-channel intelligence. Voted 'Best Fraud Detection Product 2016' by OpRisk / Risk. net, CustomerXPs' flagship product Clari5's differentiated approach deploys a well-synchronized, context-aware 'central nervous system' in banks with the ability to stop fraudulent transactions with realtime, actionable insights.

COMPANY PROFILE	
Company type	Sole proprietorship
Annual turnover	Undisclosed
Number of Cus- tomers Total	15+
Number of Employees	70
Inception	2006
Geographical coverage	South Asia, South East Asia, GCC, MENA, North America

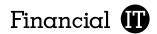
COMPANY CONTACT DETAILS	
Contact	Naresh Kurup
Job Title	Director - Marketing
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Email	naresh.kurup@customerxps.
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Elliptic is an established authority on blockchain compliance. The firm provides AML technology to the leading European and US Bitcoin exchanges, assessing risk on more than \$1 billion in Bitcoin transactions every month. In addition to providing data and analytics services to financial institutions and law enforcement agencies around the world, Elliptic advises governments on blockchain regulatory matters. In 2016, the firm was selected by KPMG as a "Top 10 Global Emerging Star" among Fintech startups and in March this year, went on to secure \$5m Series A funding lead by Paladin Group and Santander InnoVentures.

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Undisclosed
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Undisclosed
March 2013
UK, Europe, US

COMPANY CONTACT DETAILS	
Contact Kevin Beardsley	
Job Title	Business Development Manger
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Homepage address	www.elliptic.co





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.



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 type	Privately Held
Annual turnover	Undisclosed
Number of Customers Total	3,600+
Number of Employees	55
Inception	2005
Geographical coverage	EMEA, Asia Pacific, Americas

COMPANY CONTACT DETAILS	
Contact	Nicholas Demetriou
Job Title	VP Marketing
Contact address	33-34 Rathbone Place, 1st Floor, London, W1T 1JN United Kingdom
Telephone number	44 20 3102 6600 D6
Email Ad- dress	adopt@essdocs.com
Homepage address	www.essdocs.com

COMPANY PROFILE	
Company type	Sole proprietorship
Annual turnover	Undisclosed
Number of Cus- tomers Total	more than 50
Number of Employees	150
Inception	1986
Geographical coverage	Africa , Asia, Europe

COMPANY CONTACT DETAILS	
Contact	Miriam Dittert
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Contact address	Europa-Allee 22 Frankfurt/ Main 60327, Germany
Telephone number	+49 34605 450 135
Email Address	miriam.dittert@fernbach.com
Homepage address	www.fernbach.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.



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.

COMPANY PROFILE	
Company type	Public Company
Annual turnover	Undisclosed
Number of Cus- tomers Total	13,000+
Number of Employees	10,000+
Inception	1984
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Travers Clarke-Walker
Job Title	Chief Marketing Officer
Contact address	2nd Floor, One Kings Arms Yard, London EC2R 7AF United Kingdom
Telephone number	+44 (0) 7834 729 107
Email	travers.clarke-walker@ fiserv.com
Homepage address	www.fiserv.com

COMPANY PROFILE	
Company type	Publicly traded (NYSE:FIS)
Annual turnover	Undisclosed
Number of Cus- tomers Total	Over 20,000
Number of Employees	55,000+
Inception	Undisclosed
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Ellyn Raftery
Job Title	Chief Marketing Officer
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Telephone number	904 438 6000
Email Address	ellyn.raftery@fisglobal.com
Homepage address	www.fisglobal.com

GFT I

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.



Gem partners with people and companies to unlock the value in blockchain technology. Gem's modular platform for blockchain applications can be applied to a variety of use cases across multiple industries. Utilizing hardware security modules, key-based identity management, and automated workflows, Gem adds an industrial application layer to any blockchain. Gem's blockchain application platform empowers companies that are ready to build smarter networks and efficient economies. This transformation will be a journey, which is why our platform is built to withstand the trends of the bleeding edge and evolve.

COMPANY PROFILE	
Company type	Public Company
Annual turnover	€178.76 M in H1 2015
Number of Cus- tomers Total	9 out of 10 world's top investment banks
Number of Employees	4,000
Inception	2001
Geographical coverage	Global

Special Sibos 2016 Issue

COMPANY CONTACT DETAILS		
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Telephone number	+44 20 3753 5778	
Email Address	Dawn.Blenkiron@gft.com	
Homepage address	www.gft.com	

COMPANY PROFILE	
Company type	Privately Held
Annual turnover	Undisclosed
Number of Cus- tomers Total	Undisclosed
Number of Employees	11-50
Inception	2014
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Emily Vaughn
Job Title	Director of Marketing and Key Accounts
Contact address	120 Mildred Ave. Venice, CA 90291, United States
Telephone number	N/A
Email Address	partnerships@gem.co
Homepage address	www.gem.co



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.



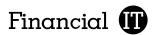
Intellect Design Arena Ltd, a specialist in applying true digital technologies, is the world's first full spectrum Banking and Insurance technology products company, across Global Consumer Banking (iGCB), Central Banking, Global Transaction Banking (iGTB), Risk, Treasury and Markets (iRTM), and Insurance (Intellect SEEC). With over 25 years of deep domain expertise, Intellect is the brand that progressive financial institutions rely on for digital transformation initiatives. Intellect pioneered Design Thinking for cutting-edge products and solutions for Banking and Insurance, with design being the company's key differentiator in enabling digital transformation.

COMPANY PROFILE	
Company type	Limited Liability Company (LLC)
Annual turnover	Undisclosed
Number of Cus- tomers Total	Over 200
Number of Employees	Over 150
Inception	1968
Geographical coverage	North America, Europe

COMPANY CONTACT DETAILS		
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Homepage address	www.indataipm.com	

COMPANY PROFILE	
Company type	Public Limited
Annual turnover	\$124M
Number of Cus- tomers Total	Over 200
Number of Employees	Over 4000
Inception	2004
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Phil Cantor
Job Title	Head of Digital Transaction Banking & CMO
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Email Address	phil.cantor@intellectdesign.com
Homepage address	www.intellectdesign.com



NICE - ACTIMIZE

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.

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Pendo Systems was established to provide a new standard in Investment Accounting System Delivery. At Pendo Systems, our mission is to be a premier provider of software solutions to global financial institutions. We strive to not only help our clients achieve their business objectives and goals, but also to contribute to the success of individuals, businesses and communities throughout the world. We are driven to work with our clients in a collaborative partnership, and are guided by the fundamental values of professionalism, respect, teamwork and quality in delivering products and services to our clients.

COMPANY PROFILE	
Company type	Public Company
Annual turnover	Undisclosed
Number of Cus- tomers Total	over 100
Number of Employees	over 500
Inception	1999
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Cindy Morgan-Olson
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COMPANY PROFILE	
Company type	Sole proprietorship
Annual turnover	over \$5M
Number of Cus- tomers Total	20+ top tier banks worldwide
Number of Employees	over 10
Inception	2006
Geographical coverage	North America

COMPANY CONTACT DETAILS	
Contact	Pamela Pecs Cytron
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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 onpremises 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.



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 type	Public Company
Annual turnover	Undisclosed
Number of Cus- tomers Total	2000+
Number of Employees	3000
Inception	1983
Geographical coverage	Asia, Europe and North America

Contact	Robert R.Spencer
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COMPANY PROFILE	
Company type	PLC/listed firm
Annual turnover	Undisclosed
Number of Cus- tomers Total	250
Number of Employees	152+
Inception	1990
Geographical coverage	Global

Contact	Kate Tsoura
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Reval is the leading, global provider of a scalable cloud platform for Treasury and Risk Management (TRM). Our cloud-based offerings enable enterprises to better manage cash, liquidity and financial risk, and to account for and report on complex financial instruments and hedging activities. The scope and timeliness of the data and analytics we provide allow chief financial officers, treasurers and finance managers to operate more confidently in an increasingly complex and volatile global business environment. With offerings built on the Reval Cloud Platform companies can optimize treasury and risk management activities across the enterprise for greater operational efficiency, security, control and compliance.

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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 type	Privately Held
Annual turnover	Undisclosed
Number of Cus- tomers Total	575+
Number of Employees	500+
Inception	1999
Geographical coverage	North America, EMEA and Asia Pacific

COMPANY CONTACT DETAILS		
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COMPANY PROFILE	
Company type	Privately Held
Annual turnover	Undisclosed
Number of Cus- tomers Total	25 active integrations
Number of Employees	110
Inception	2012
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	ZZ Zhuang
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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 Finacial 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 type	Corporation
Annual turnover	Undisclosed
Number of Cus- tomers Total	Undisclosed
Number of Employees	80
Inception	1986
Geographical coverage	Asia, Europe

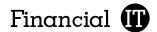
COMPANY CONTACT DETAILS	
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SmartStream provides Transaction Lifecycle Management (TLM®) solutions and Managed Services to dramatically transform the middle and back-office operations of financial institutions. Over 1,500 clients, including more than 70 of the world's top 100 banks, 8 of the top 10 asset managers, and 8 of the top 10 custodians rely on SmartStream's solutions. SmartStream delivers greater efficiency, automation and control to critical post trade operations including: Reference Data Operations, Trade Process Management, Confirmations and Reconciliation Management, Corporate Actions Processing, Fees and Invoice Management, Collateral Management, Cash & Liquidity Management and Compliance Solutions.

COMPANY PROFILE	
Company type	Privately Held
Annual turnover	Undisclosed
Number of Cus- tomers Total	1,500 clients
Number of Employees	over 500
Inception	2000
Geographical coverage	Global

COMPANY CONTACT DETAILS	
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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:

Strands Finance – develops innovative FinTech, empowering financial institutions to offer superior customer experiences through their digital channels

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

COMPANY PROFILE	
Company type	Private Limited Company
Annual turnover	Undisclosed
Number of Cus- tomers Total	20+ top tier banks worldwide
Number of Employees	100
Inception	2004
Geographical coverage	Global

COMPANY CONTACT DETAILS	
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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 type	Privately Held
Annual turnover	Undisclosed
Number of Cus- tomers Total	40
Number of Employees	800+
Inception	1990
Geographical coverage	Global

COMPANY CONTACT DETAILS	
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Volante 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 Volante 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, Volante Designer and its VolPay suite of payments integration and processing products, Volante 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 type	Private Company
Annual turnover	Undisclosed
Number of Cus- tomers Total	more than 80 in 26 countries
Number of Employees	around 120 and growing
Inception	2001
Geographical coverage	US, Latin America, UK, Europe, Middle East, Africa, India

COMPANY CONTACT DETAILS	
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Way Back is a Brazilian company working in the Debt Collection industry since 1991 and experienced both out-of-court and court debt collection stages. With a significant portfolio of customers, Way Back is a company with strong presence in Brazil and abroad working with the collection of receivables in different sectors of the economy, such as the financial, industrial, trade and services sectors. Headquartered in São Paulo, Brazil, and with a branch in Miami, USA, Way Back is present in over 155 countries and offers the best performance and service structure in the credit and collection segment by means of its business sectors: Debt Collection B2B, B2C, Judicial, International and other BPO services.

COMPANY PROFILE	
Company type	LTD (Brazil LTDA)
Annual turnover	Undisclosed
Number of Cus- tomers Total	186
Number of Employees	212
Inception	1991
Geographical coverage	Global

COMPANY CONTACT DETAILS	
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