

Financial **IT**

Innovations in Technology

A portrait of Rivi Varghese, CEO at CustomerXPs, is the central focus of the cover. He is a man with dark hair and a mustache, wearing a dark suit jacket over a blue and white striped shirt. He is smiling slightly and looking directly at the camera.

Rivi Varghese,
CEO at CustomerXPs

THE POWER OF THE SEGMENT OF ONE

**BRIDGING
THE GAP**

Pamela Pecs Cytron
CEO
Pendo Systems, Inc.

**HELPING BANKS WITH
THE OMNI-CHANNEL
APPROACH**

Katherine Kostereva
CEO and Managing Partner
Bpm'online

**DELIVERING
TRANSPARENT
AND INTEGRATED
BANKING WITH APIs**

Maurizio Canton
EMEA CTO
TIBCO Software

Key pillars for building a successful omnichannel banking experience

In order to succeed at establishing a successful omnichannel banking system, banks have to carefully evaluate their customer data and identify the most relevant touchpoints of interaction with their customers. Another aspect critical for building an effective omnichannel banking is determining what the complete experience means for their customers. Analyzing this data will provide essential information pertaining to user experience which would help banks to build an illustrative blueprint on where and how the bank should interact with their clients.

Consistency

No matter what channel an inquiry is submitted through, banks need to answer it in the same manner. It is rare that a customer engages with a brand through a single channel (web, mobile, branch, contact center, etc.). Poor customer service over one of the channels can spoil the history of relationships with this client.

Internal alignment

A bank needs to break down its internal organizational barriers to address the challenges of omnichannel service. For example, a simple transaction in which a customer orders a service online and wants to complete it in-branch can create issues within an internal system that has not been structured to accommodate the fluidity between channels.

Transparency

While there are occasions where product availability will vary by channel, it is essential to make it very clear to customers where and how they can find what they are looking for. By setting expectations, a company avoids creating unnecessary disappointment.

Measurement

Traditional behavioral metrics struggle with omnichannel experiences. Only by truly understanding how the customer evaluates the experience will help banks to understand if they are meeting the needs and expectations of their customers.

Benchmarking stats

44%

Only 44% of respondents say they are satisfied with the consistency of the experience their bank provides across

19%

Only 19% of banks report integration of online, mobile and social media on a common platform.

83%

83% of bank customers are ready to switch to another bank if the bank presents a slight hint of deception.

10-15%

Banks only process about 10-15% of available data. Very often, this data is in business silos or functionally separated from the rest of the relevant data sets.

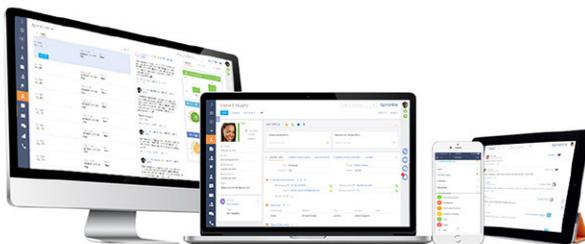
Powerful CRM designed for corporate and retail banks and financial institutions to manage a complete customer journey and enhance their customer experience.

bpm'online

financial services

ABOUT BPM'ONLINE

Bpm'online is a global provider of award-winning CRM software that streamlines customer-facing processes and improves operational efficiency. The beauty and the core value of bpm'online products is the agility to change processes faster than ever and align service, sales and marketing on a single platform. Users love bpm'online's engaging interface with a social look and feel, free from redundant information to keep them focused on what's relevant. Today, the company serves thousands of customers worldwide.



Employ bpm'online's process-driven service management software and deliver outstanding omnichannel service and support to build customer loyalty

[Download eBook](#)

Contents

EDITOR'S LETTER

- 4 Putting the clients first

TOP STORY

- 6 The power of the segment of one

LEAD STORY

- 8 Bridging the gap
12 Helping banks with the omni-channel approach
14 Delivering Transparent and Integrated Banking with APIs

INNOVATION CORNER

- 16 Reinventing banking software

INTERVIEW

- 18 How K&H Bank made Big Data meaningful

NEWS

- 44 Mandates
45 Deals
46 People Moves

FEATURED STORY

- 20 APS 2017 redictions
24 Digitisation will help delete the fraudsters from the trade finance system
26 Digital Transformation: Farewell to the traditional bank branch?
28 Achieving Digital Transformation in Banking
30 Uncertain times call for sophisticated analysis and the adoption of a smart risk culture
32 2017 – Prepare for another roller-coaster ride
34 Predictions for 2017
38 Running at the Speed of Data – real-time use cases that get banks moving
42 The next stage of the technological evolution for the financial industry

DIRECTORIES

- 47 Financial Technology Buyers' Guide

February Issue 2017



- 8 **BRIDGING THE GAP**
Pamela Pecs Cytron
CEO
Pendo Systems, Inc.



- 12 **HELPING BANKS WITH THE OMNI-CHANNEL APPROACH**
Katherine Kostereva
CEO and Managing Partner
Bpm'online



- 14 **DELIVERING TRANSPARENT AND INTEGRATED BANKING WITH APIs**
Maurizio Canton
EMEA CTO
TIBCO Software

Financial **IT**

Editor-In-Chief

Andrew Hutchings
andrew.hutchings@financialit.net

Managing Editor/Research Analyst

Katherine Emirosan
katherine.emirosan@financialit.net

Content Editor/Events

Nilyufar Sodikova

Production/Design

Timur Urmanov

Founder

Muzaffar Karabaev

Although Financial IT has made every effort to ensure the accuracy of this publication, neither it nor any contributor can accept any legal responsibility whatsoever for consequences that may arise from errors or omissions or any opinions or advice given. This publication is not a substitute for professional advice on a specific transaction.

No part of this publication may be reproduced, in whole or in part, without written permission from the publisher. Entire contents copyrighted. Financial IT is a Finnet Limited publication.
ISSN 2050-9855

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

innovation
enterprise.

STAY AHEAD IN AN EVER-CHANGING LANDSCAPE

FP&A for High-Tech Summit

April 18-19 | San Francisco

SAVE 20%
WITH CODE
FINANCIALIT20

speakers include:

YAHOO!

indeed™
one search. all jobs.

Expedia®

✉ sblunsdon@theigroup.com

☎ +1 (415) 604 3777

🔍 www.theinnovationenterprise.com

PUTTING THE CLIENTS FIRST

Who is really driving the transformation of the global financial services industry?



Andrew Hutchings,
Editor-In-Chief

This edition of Financial IT, the first for 2017, is one of the most important that we have ever produced.

Yet again, the articles and interviews that are included cover a huge variety of topics that are relevant to the intersection of financial services with IT.

As ever, the topics reflect the interests of the author, the interviewee or the sponsoring organization. Technology companies, and their representatives, generally focus on their products and the forces that are prevailing in the particular markets that they serve. Banks tend to focus on more strategic issues, such as the impact of regulation, the impact of the Cloud or what financial institutions are likely to look like in five years time.

In other words, the articles tend to look at questions through the prism of a product or a strategic issue. What sets this edition of Financial IT apart from others is that, collectively, the articles highlight who is ultimately driving the entire transformation of the global financial services sector: the banks' clients.

For instance, one of contributors explains the concept of 'the segment of one'. Each customer of a financial institution is different and worthy of detailed understanding. The implication of this is that products that can use the understanding of the client to fight fraud and to comply with Anti-Money Laundering/Countering Financing of Terrorism (AML/CFT) regulations – which always impose costs on an institution – can be used to generate revenue.

Other commentators look at the implications for client relations of a move to omni-channel banking and the value of Cloud-based APIs. The details vary, but in all cases, the banks are investing in cutting edge technology in order to attract and/or retain clients.

Understanding clients requires smart data analysis – and lots of it. In 2017, data analysis will likely be transformed by artificial intelligence (AI) and machine learning. However, as one of our contributors explains, there remain two major challenges that need to be overcome for AI to have maximum impact.

One of our contributors, a senior representative of a major international bank in continental Europe, sees access to client data as the key factor that will ultimately protect traditional institutions from loss of market share to fintech disruptors that are structured in a completely different way.

While all the clients of a particular bank are different from each other, there are often many similarities. One of our contributors explains how traditional bank branches can be transformed in order to boost engagement with clients who still want to deal with their banks through branches. Another contributor explains what are the benefits for a financial institution of moving to a Cloud-based bank-out-of-a-box solution. Obviously such solutions can work perfectly well when the majority of the institution's clients prefer not to deal through branches.

Of course, clients can be individuals or businesses. One of our contributors looks at how digitization can reduce fraud in trade documentation – which is still overly dependent on physical documents. Any move towards digitization in trade finance should also reduce costs that are borne by the various parties involved and to improve the 'customer journey' of all.

In this edition, we also include predictions for the year ahead from a variety of Financial IT companies. Some of the companies emphasise uncertainty – in financial markets and generally – following the UK's move towards Brexit and the arrival in the United States of the Donald Trump administration. Others discuss regulatory changes, while others look in some detail at new technologies that are being developed.

If we were only able to make one prediction, it would be this: by early 2018, all parties – be they traditional financial institutions, fintech start-ups or technology companies – will be placing much greater importance on the needs of banks' clients when they discuss the massive changes that are taking place.

Easy access to IFRS 9

The competition among banks rises in a world full of risks. The launch of IFRS 9 on 01.01.2018 will change how we should think about these risks. Get prepared in time, use MoonSol IFRS 9 software to model your risks. Get an easy access to IFRS 9

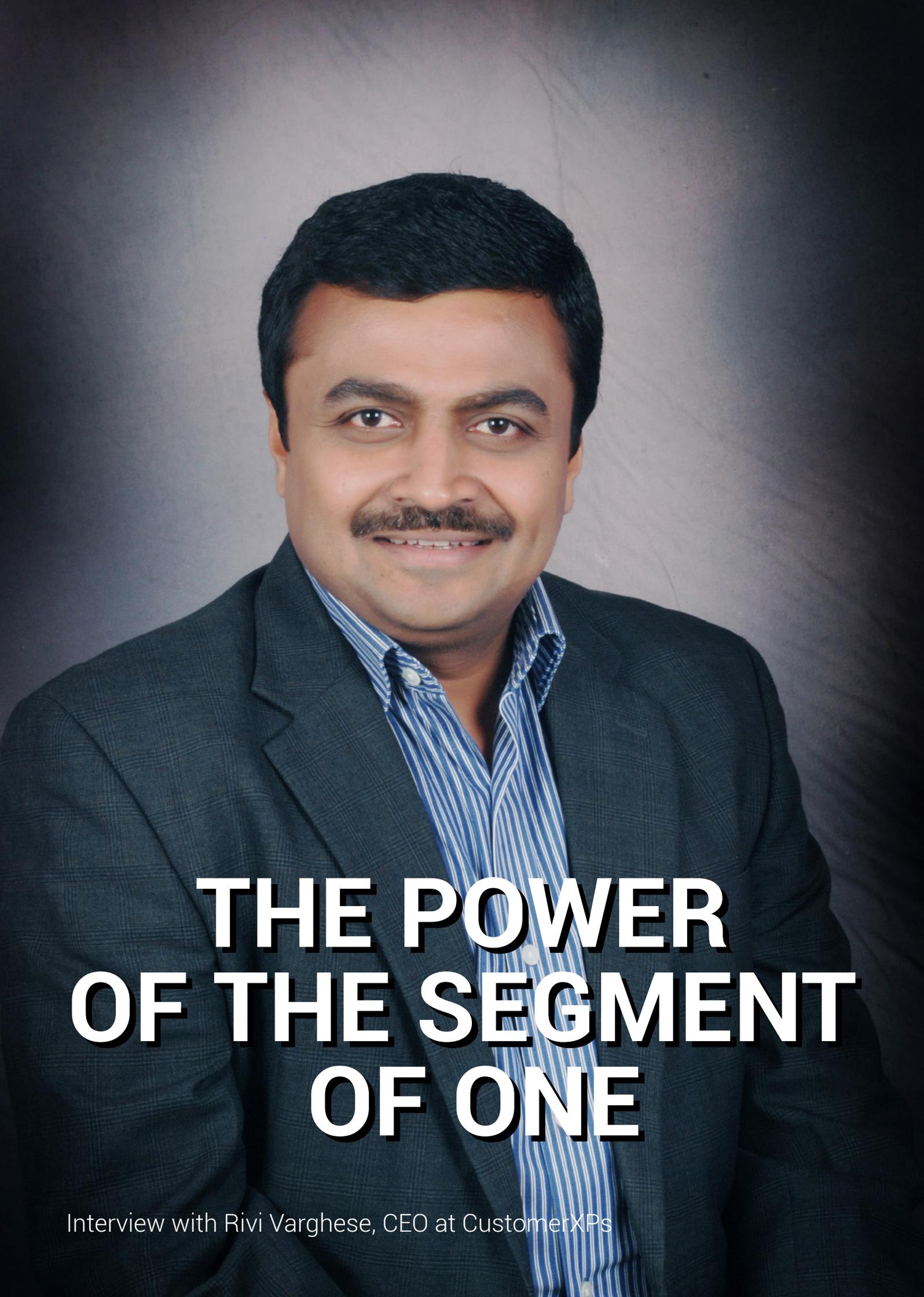
... and have all the advantages at €125000
for the IFRS 9 Standard Package.



Online
BUSINESS TECHNOLOGIES

Learn more at www.moonsol.com/ifrs
Meet us at the 14th Annual Retail Banking Forum,
12-13th October, in Vienna





THE POWER OF THE SEGMENT OF ONE

Interview with Rivi Varghese, CEO at CustomerXPs

CustomerXPs®



Financial IT: Rivi, please tell us a little about CustomerXPs

Rivi Varghese: We were founded in 2006. We are probably best known for our Clari5 Enterprise Financial Crime Management solution. It simultaneously enables financial institutions to fight fraud and to comply with anti-money laundering/ combat financing of terrorism (AML/CFT) regulations. Clari5 enables institutions to combine information about a customer from the different silos within their own organizations, and to derive actionable insights.

Financial IT: What are the trends that you are seeing in your marketplace?

Rivi Varghese: The background is that regulators are demanding that banks demonstrate greater control against fraud and ability to deal with AML/CFT issues. One key trend is that more banks than ever before are taking an 'omnichannel' approach to business. Increasingly, it is possible for clients of all kinds to make domestic or cross-border payments, using online facilities and/or a variety of handheld devices. Another key trend is that banks are looking to achieve a holistic, 360-degree, view of each customer.

Financial IT: We have been hearing about these trends for some time now. Has there been a big change in 2016?

Rivi Varghese: I'd highlight two major changes. First, the banks that we have been dealing with – and particularly here in India, as well as in the Middle East and Africa – have been talking much more about these issues. They are allocating budgets to dealing with fraud and AML/CFT issues as they adopt an 'omnichannel' approach to working with their clients.

The second big change is that the banks are increasingly seeing the challenge as one that affects them all, collectively. If a suspicious transaction takes place at Institution X – and it does not matter whether that transaction is clearly fraud or that it falls foul of AML/CFT regulations – then the chances are that Institution Y will also be involved. Accordingly, we have developed a

cloud-based and, for want of a better word, federal version of Clari5 that can be applied to entire banking networks. We are in the process of launching this in a key market in Northern Europe.

Financial IT: CustomerXPs emphasises that Clari5 can boost revenues as well as reduce costs. Could you please explain?

Rivi Varghese: Most banking customers conduct a substantial amount of their banking business with a single institution. That means that institution should have a fairly comprehensive view of each customer. The central feature of Clari5 is that it enables a bank to exploit its comprehensive knowledge of a customer to identify anomalous transactions.

However, the identification of anomalous transactions, and reduction of costs and losses, is just one opportunity. Much more exciting is the possibility of using the comprehensive knowledge of the customer to improve service and/or to cross-sell something to him/her.

This is the concept that I would describe as 'the segment of one'. No two customers are the same. If a bank truly has 360 degree knowledge about a customer, then its marketing department will know exactly what that customer is or is not likely to buy. It should therefore be possible to avoid sending the client numerous e-mails which are irrelevant and which will probably be ignored.

Financial IT: That is well and good. However, a number of questions remain. Can the concept of 'the segment of one' be applied in real time? Are institutions doing this in practice, or is the opportunity largely theoretical?

Rivi Varghese: The beauty of Clari5 is that it operates in real time. For example, suppose that an institution sees that a customer is using his/her card to buy goods at a duty free shop in an airport. Suppose further, that the institution knows enough about that customer to be sure that he/she is likely to buy travel insurance but appears not already to have done so. The institution

has the opportunity to send an e-mail or an SMS to the customer with a precise offer for travel insurance.

Moreover, I would stress that the opportunity is not theoretical. One of the leading private sector banks that we are working with in India is taking precisely this approach.

Financial IT: We have included a product profile of Clari5 on our website for some time. It appears that there are a lot of competitors who are, at least in general terms, trying to serve institutions by addressing the same issues that you are. What is Clari5's competitive edge, in your view?

Rivi Varghese: We believe that Clari5 has an edge for two reasons. One is that the total cost of ownership is about 30% lower than that of products that are broadly comparable. The second is that implementation is faster than for the other products. Unlike many of our competitors, we sell the license to the technology and we carry out the implementation. Our clients can usually go live within six months. Some have done so in two.

Financial IT: What commercial wins would you highlight from the last year or so?

Rivi Varghese: We are very pleased with the way in which our business has grown since early 2016. We have begun working with three major banks in India, who have 150 million clients between them. We have also completed the Proof of Concept stage with two major global banks: one is based in the UK, and the other in Continental Europe. Discussions are continuing with major U.S. banks.

Meanwhile, one of our clients has recently won the Fraud Management and Cybersecurity award at the Celent Model Bank Awards, for its initiative on the "Art of using investments in real-time fraud management to make money for the bank". In essence, the power and the potential of the segment of one is being recognised.

Financial IT: Thank you very much.

Rivi Varghese is Chief Executive Officer (CEO) of CustomerXPs. He co-founded the Bangalore-based company in 2006 along with Aditya Lal, Balaji Suryanarayana and Sandhya V. The company focuses on Banking Fraud Management, Anti-Money Laundering and Customer Experience under the product brand name, Clari5. JAFCO, the premier investment banking arm of Japan's Nomura group was a Series A investor in 2010.

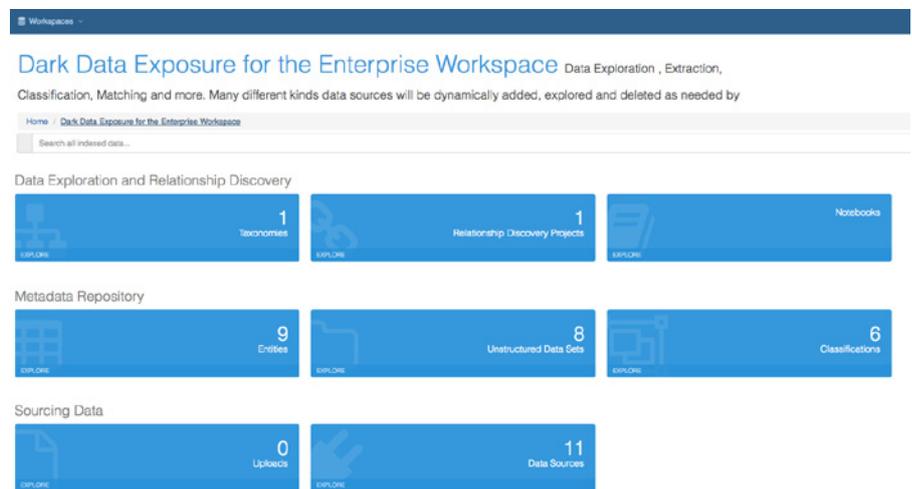
BRIDGING THE GAP

Financial IT: Pendo extracts and orders unstructured information from PDFs and other documents, and then presents that information in a single, harmonized way. Further, Pendo does this for large and complex financial institutions – which tend to hold key data in separated silos. Can you give specific examples of what you do, without exposing the sensitive details?

Pamela Pecs Cytron: In one instance, we extracted key financial data from 23 million investor statements. A part of the challenge was that the content and the format of the statements had changed over time. We then created just under 1.4 billion records of daily transactions and monthly positions. This enabled the bank's risk team to create a detailed mode of how investors had behaved during 2008. The whole project took just three months.

In another instance, we extracted loan servicing information from more than 50 different loan servicer statements with varying content and formats. We had two objectives. The first was to create a no-touch process for gathering risk models. The second was to improve the efficiency and data accuracy of the bank's risk model. The project took two months.

Financial IT: Pendo has had tremendous success in working with one of the world's



largest global banks. In general terms, who else are you talking to?

Pamela Pecs Cytron: The crucial point is that we are speaking with many divisions within that bank. The opportunity comes from working with numerous stakeholders within the organization. Looking forward, we hope to do a lot of work with the global insurance industry.

Financial IT: Presumably a huge opportunity for Pendo is that you can give managers the information that they need for matters requiring immediate attention (MRIA) – and far faster than Big Data projects. Does this mean that every bank with a Big Data project is a potential client?

Pamela Pecs Cytron: Absolutely. However, there are many other potential clients. The opportunities are unlimited, because we can handle any kind of data – which may or may not be central to a Big Data project. For instance, we can give an organization a good understanding of vendor contract risk – the exposure to a collapse of a key supplier.

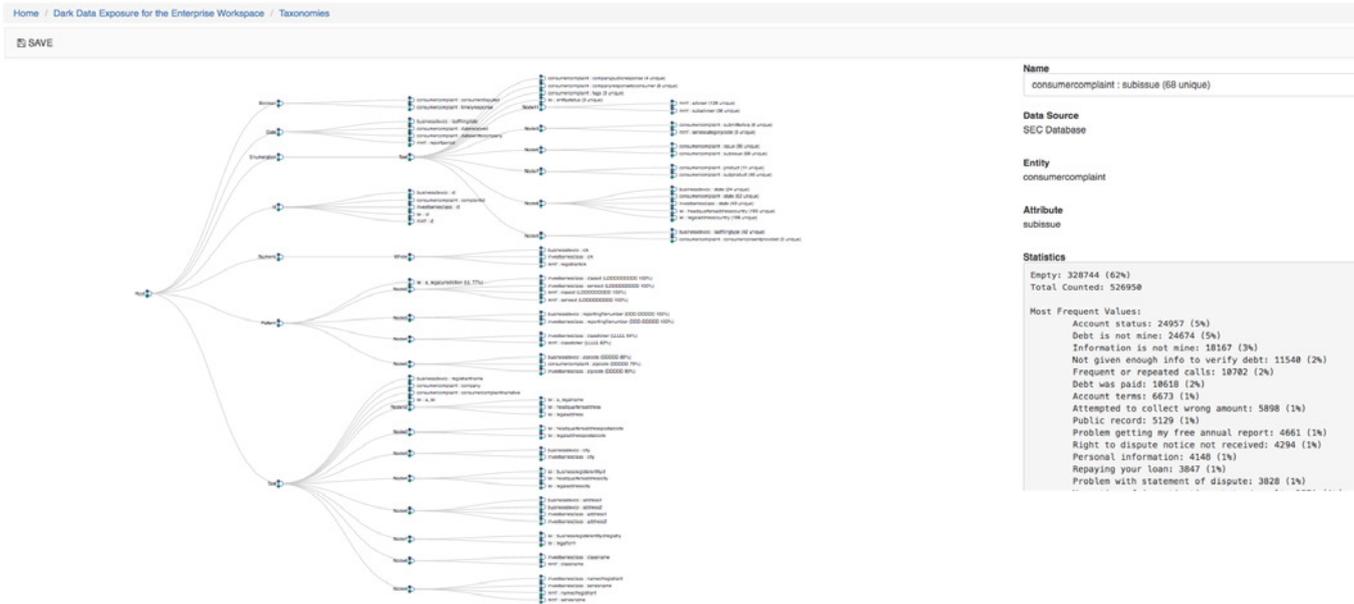
Financial IT: Tell us about how you are working with legacy system providers? Surely Pendo's platform can hugely increase the value of what you are offering, while their established relationships give you low cost distribution – and a win/win for everyone?

Pamela Pecs Cytron is the Founder and CEO of Pendo Systems, Inc., which was established in 2006. She had previously served in executive roles with DST International, Sungard, BlackRock and Netiq.

Pendo Systems' PD³P product is a data management and intelligence platform that provides exploration, discovery and analysis capabilities across multiple, disparate sources of both structured and unstructured data. Probabilistic algorithms are leveraged for searching, matching and classifying data to create a superior understanding of an organization's data. This new-found understanding is used to quickly solve an organization's most difficult data problems.

A professional portrait of Pamela Pecs Cytron, CEO of Pendo Systems, Inc. She is a woman with short, layered blonde hair, wearing a black top. She is resting her chin on her right hand, which has dark red nail polish. She is wearing a silver watch on her left wrist and a colorful, circular earring. The background is a dark, neutral grey.

An interview with
Pamela Pecs Cytron,
CEO – Pendo Systems, Inc.



Pamela Pecs Cytron: That is basically true. However, the way that I would put it is that one opportunity stands out for organizations with legacy systems: we can help them to monetize the data that they have in relation to their customers. Merely providing the organizations with APIs is not – by itself – enough to achieve this.

Financial IT: Tell us about your progress with developing an on-demand self-service platform that is accessible by any financial institution?

Pamela Pecs Cytron: There are various reasons why we are excited about 2017. One is our self-service Platform, which

should become available. Another is the series of improvements that we have made to our existing Platform. Risk modelers can now combine internally-sourced information with data that they have collated from outside the organization – through FileNet or Sharepoint, for instance. It is also possible to use geometry-based queries to find data in specific locations in documents that have been scanned.

Financial IT: That’s great. What are the really big changes that you expect for 2017?

Pamela Pecs Cytron: I think that 2017 will be the year of true insight. True insight is much more than Big Data. True insight

occurs when decision-makers can immediately see what data is missing and what data needs to be enriched. A catalyst for the change will be Artificial Intelligence (AI) and machine learning. However, AI will only really have an impact when two conditions are met. The first is that we are efficiently extracting data from documents that are contained in legacy systems. The second is that we are efficiently finding the data that is not contained in legacy systems. Many of the legacy systems were invented before anyone understood properly what form fields were needed. Our Platform helps organizations to meet these conditions. In doing so, we are bridging the gap.

Search

Home / Dark Data Exposure for the Enterprise Workspace

Search: jones

Scope: All Sources Include Entities with no hits

Legal Entity Identifier Database / Legal Entity Identifier 255 hits

ID	A_ Jurisdiction	A_ Legalname	A_ Lat	Businessregisterid	Businessregisteridch	Entitystatus	Headquartersaddress	Headquartersaddress	Headquartersaddress	Headquartersaddress	ID	Legaladdress	Legaladdress	Legaladdress
0	US	"Jones Public Affairs, Inc."	54930065GBXB0KRYRD...	N/A	N/A	ACTIVE	C/O Carrie Jones	McLean	US	22101	120.967...	C/O Carrie Jones	McLean	US
0	US	"Tilford A. Jones, LLC"	549300648PPZD8PC344	N/A	N/A	ACTIVE	C/O Tilford A. Jones	Bethesda	US	20816	175.814...	C/O Tilford A. Jones	Bethesda	US
0	US	"Jones Oil Company, Inc."	5493008XUG2FEKUSQ33	N/A	N/A	ACTIVE	"C/O Earl Jones, Jr."	Phelps	US	41553	97.820.00	"C/O Earl Jones, Jr."	Phelps	US
0	US	"Jacky W. Jones Ford, Inc."	5493007KVPWLCHOWQ17	N/A	N/A	ACTIVE	C/O Jacky Jones	Cleveland	US	30528	83.728.00	C/O Jacky Jones	Cleveland	US
0	US	"Devis Jones, Inc."	5493001EYMHFWZSH...	N/A	N/A	ACTIVE	PO Box 7627	Boise	US	82707	108.969...	C/O Charly Jones	Boise	US

1 - 5 of 255 items

SEC Database / Investor Series Class Funds 107 hits

ID	Address 1	Address 2	City	Classid	Classname	Classfiker	ID	Nameofregistrant	Reportingnumber	Seriesid	Seriesname	St	Zipcode
0	17605 WRIGHT STREET		OMAHA	C000109586	Arrow Dow Jones Global ...	GYLD	47.407.00	Arrow ETF Trust	30	811-22624	5000035751	Arrow Dow Jones Global ...	NE 68130
0	152 WEST 57TH STREET	18TH FLOOR	NEW YORK	C000116057	KraneShares Dow Jones ...	CHDV	63.891.00	Krane Shares Trust	30	811-22698	5000037619	KraneShares Dow Jones ...	NY 10007
0	120 EAST LIBERTY DR...		WHEATON	C000033920	First Trust Dow Jones HL...	FON	55.879.00	FIRST TRUST EXCHAN...	30	811-21774	5000012479	First Trust Dow Jones HL...	IL 60187
0	1 CORPORATE WAY		LANGING	C000112465	JNL MELLON CAPITAL D...		61.678.00	JNL SERIES TRUST	30	811-08894	5000026360	JNL MELLON CAPITAL D...	MI 48951
0	1 CORPORATE WAY		LANGING	C000112466	JNL MELLON CAPITAL D...		61.679.00	JNL SERIES TRUST	30	811-08894	5000026360	JNL MELLON CAPITAL D...	MI 48951

1 - 5 of 107 items

LOV Source / Fixed Value Functions 20 hits

LOV Source / Lease Delinquency 15 hits

LOV Source / LOV Data Source 9 hits



THE REALITY OF DATA DISCOVERY

pendo

PENDO DATA PLATFORM

Achieve new heights with data classification, matching and searching

pendo
systems

Katherine Kostereva is CEO and Managing Partner of bpm'online. The company offers three products on one platform to connect the dots between marketing, sales and service. The system delivers end-to-end processes to manage the complete customer journey – from lead to order to continued customer service excellence.



HELPING BANKS WITH THE OMNI-CHANNEL APPROACH

Financial IT: How would you describe bpm'online?

Katherine Kostereva: Bpm'online is a leading CRM provider that combines marketing, sales and service solutions on a single platform. It offers a robust financial services industry solution. In the last 14 years, bpm'online has gone from being a small shop of just five employees, to being a global leader in process-driven customer relationship management (CRM.) Our offering is used by retail and commercial banks, as well as non-bank lenders.

Financial IT: What do you see as being your competitive edge?

Katherine Kostereva: Our business process management (BPM) platform helps to better manage customer relationships and personalize communication at any touch point. It does this by offering pre-defined processes to manage the complete customer journey – from the initial request for information to continued account maintenance. Bpm'online clients are able to deliver an outstanding customer experience, while improving operational efficiency.

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

Katherine Kostereva: We work with a number of banks and financial services companies worldwide.

For our retail banking clients, we optimize their customer journey in part by aligning operations on a single platform where a complete customer view is obtainable.

For corporate banking clients, we work to automate their sales and marketing processes.

Lenders also choose our platform to manage their loan practices. Bpm'online is available via the Cloud or on-premises. It is fully compliant with banking industry regulations.

Financial IT: What are the main trends in the financial industry, as you see them?

Katherine Kostereva: The FinTech industry is booming. Financial service institutions have realized the benefits of new technologies and a lot of trends are gathering momentum.

We at bpm'online still believe that a seamless customer experience across various touch points should be the top strategic initiative – although managers also need to consider the security of data.

Recently, PWC's research actually found that 57% of finance industry executives consider Customer Interfaces and Channels their first focus, which was followed by customer need identification. As in other industry verticals, there is also a need for immediate, transparent, and personalized solutions.

We agree with the proposition that an omni-channel approach is one that should be among the top priorities.

Financial IT: How does Cloud computing drive the banking industry? What are the benefits it brings to banks and their customers?

Katherine Kostereva: Cloud computing is driving a revolution in the banking industry. While reluctant at first, banks have realized the benefits it brings.

Most financial companies believe that Cloud computing is essential to their future strategies and are demanding greater connectivity between their banks. Other advantages Cloud computing brings to the banking industry include improved flexibility, scalability and feasibility.

Further, the banks' customers benefit. Banks can serve the customers more rapidly. With better data, it is easier for the clients to track and schedule appointments and to track information from any device.

Financial IT: How does an omni-channel business model lead to seamless customer experience in banking? For instance, what does the customer's journey look like when he/she opens an account?

Katherine Kostereva: A client can communicate with a bank using various channels, but the bank should be able to accumulate the information and deliver a personalized solution via the communication channel that is most preferred by the client. The opening of an account illustrates this. The customer could have been referred via email from a friend and followed a link to the bank's website. The client then decides to open an account. Upon attempting to finalize the opening of the account, the customer is asked to call their local branch to complete the transaction. The customer may be confused and not happy about now having to engage via a different channel. The onus is on the bank to provide a seamless onboarding experience that allows the customer to complete activities on their preferred channel, or direct them to the channel that is best able to assist in his/her request.

Financial IT: What are the most critical challenges and opportunities that most banks see while using the omni-channel business model?

Katherine Kostereva: It's easier to integrate omnichannel capabilities for new banks rather than overhauling a long-term pre-existing infrastructure. Too many banks are overly focused on products rather than clients. Too many banks lack a single master system that can manage all channels: as a result, they are often losing key data.

Further, movement to omni-channel banking is not a one stage process. It involves changes on many levels and the adoption of many new common standards.

Also, there are often concerns about security-related issues. These arise from the different quality standards and certifications that are required of banks.

Financial IT: What are the main driver of the various changes that are underway?

Katherine Kostereva: The customer is the driver of this transformation. Companies are hurting themselves by not adequately meeting the customer on their preferred channels and leveraging the data they have to provide a better customer experience.

It is this realization that has lead organizations to identify artificial intelligence (AI) as being the technology that has the potential to equip their business for an ever-evolving customer journey.

AI creates organizational efficiencies and more effectively leverages data to provide a personalized customer experience. By not successfully exploiting the latest in AI, businesses do not just sacrifice growth. They may endanger their solvency long term.

This is in the context of a world where technology advancements have leveled the playing field: small and medium size businesses can compete with larger companies, with the result that the need to provide a personalized experience is essential for the separation of an organization from the pack.

The good news is that, according to PWC's research, 97% of CEOs in the financial services industry see innovation as a key priority for growth. I am therefore confident that we are on the verge of a huge transformation in the financial services industry.



While financial services has traditionally been considered cautious in its adoption of new technology, the case for Application Programming Interfaces (APIs) is certainly growing in strength.

Improved service delivery and broader customer reach are but two of the benefits already being enjoyed by banks who have made the leap to API adoption. Such benefits provide real evidence that APIs are making the banking vision of 'anywhere, anytime' a reality for today's ever-increasing population of mobile customers.

Undoubtedly it is APIs that have helped to facilitate single view, real-time access to banking information. This in turn has empowered customers to take control of their financial decisions, building trust and improved relationships, which ultimately results in loyalty and increased sales.

It now appears that this relationship is set to further blossom, thanks to PSD2 and the Third Party Payment component signalling the mandatory introduction of open APIs in banks.

Opening up

The next logical step from the original Directive of Payment Services (PSD), PSD2 continues the European Commission's efforts to foster innovation and a more inclusive way of working across the banking sector. But what does this mean? In an effort to achieve this integration and improved service delivery, payment processing services and customer accounts held by the bank will be opened up to the industry. As such, open APIs will allow permitted third parties to access key information such as banking products and customer account data.

It is thought that the benefits of such an API approach have multiple and mutual benefits to both the banks and customers, not least that a more transparent, single payments market across Europe with enhanced security around internet payment and account access, will drive greater cohesion and integration.

Endless opportunities

The possible applications are simply too many to count. Consider the benefits of a mortgage provider with access to a customer's transactional data. This information can easily be used to provide an instant view on mortgages that are both available and affordable to the customer. Or perhaps an application where a financial management tool, fuelled by greater data insight, can monitor an individual's

spending and provide feedback and alerts in real time. It is this type of forward-thinking application that could have a significant impact on helping customers to better manage their own finances.

While it may appear to be the nirvana of integrated banking, there are of course some fears, most notably around loss of control. However, PSD2 remains a pending legal obligation. Banks and customers must come to terms with it, and they do have a choice. Banks can approach it reluctantly with a mindset of 'unavoidable compliance' or they can choose to embrace it. The latter will allow them to capitalise on the opportunities to increase revenue potential generated through added value data and the ability to evolve a particular offering to the millions already registered via APIs.

Whether to approach reluctantly or fully embrace isn't the only question for the banks. Selecting the right underlying platform will be critical, as APIs developed for PSD2 are unlikely to be a routine internal IT management issue for the bank. It is more likely that complex commercial decisions will be required about a new technology, different to the bank's traditional own-brand products.

The legacy culture

Moving to an API-driven architecture is no simple task and will demand the banks employ a new approach to their IT infrastructure. The challenge for those banks operating with legacy systems and architecture could be immense.

Looking to assist banks with this challenge, the latest breed of API management solutions that can cover the entire API lifecycle, will increasingly come into their own. The best of which will enable users to create, integrate and manage APIs inbuilt within a single cloud-based offering, providing ease of use, optimal visibility and will come with inbuilt security and analytics features. However, the additional support from a team with the experience and knowledge to guide through the issues that arise during this process, should not be underestimated.

The journey towards delivering improved transparency and integrated banking may not be simple, but is certainly a worthwhile one. The key pre-requisite is for an API platform as sophisticated as the APIs themselves. This will help to drive integration with the channel and trading partners, and will become an essential tool in ensuring that the banks' response to PSD2 goes beyond simply compliance. The reward is much greater than compliance alone, as banks can move to fully evolve their digital business.

About Maurizio Canton:

As TIBCO CTO of the EMEA region, Maurizio will ensure consistency of technology vision, provide strategic sales support and support for AR, PR, marketing and M&A initiatives, as well as serve as a conduit for the Global CTO function. Maurizio has more than 25 years' experience in IT working for several software vendors, such as TIBCO Software, IBM, Siebel, SOA Software and Red Hat. He has had several Euro-

pean roles covering pre-sales/sales, marketing and HW/SW engineering. In TIBCO's earliest years, Maurizio was the only person in Europe supporting mainframe technology before moving to be a very successful Solution Consultant in the Financial Market in the UK. He was also part of the Composite Application Group (CAG) team supporting TIBCO's SOA, BPM Infrastructure and Governance in Europe and worldwide.

A close-up portrait of Maurizio Canton, a middle-aged man with short, graying hair, smiling broadly. He is wearing a dark suit jacket, a light blue dress shirt, and a patterned tie. The background is a blurred, teal-colored wall.

Maurizio Canton,
EMEA CTO, TIBCO Software

**DELIVERING TRANSPARENT
AND INTEGRATED BANKING
WITH APIS**



REINVENTING BANKING SOFTWARE

Interview with Angelique Schouten, CEO at Ohpen UK

Financial IT: *How would you describe Ohpen?*

Angelique Schouten: Ohpen provides both incumbent financial services companies and new market entrants with a “bank-out-of-the-box” solution to fully outsource their investment & savings account operations.

We deliver IT services and technology to outsource the back- and front-office operations of banks, asset managers, and insurance companies. Founded in Amsterdam in 2009 by former bankers, the offering combines fully cloud-based SaaS technology with BPO services that enables financial services companies to launch propositions, digitalize their services quickly and easily, and benefit from lower costs of a unique all-in-one pricing model. Ohpen administrates hundreds of thousands of retail accounts and billions of euros in assets with a team of more than 80 domain experts across their offices in the Netherlands, the United Kingdom and Spain.

Financial IT: *What do you see as being your competitive edge?*

Angelique Schouten: Our biggest competitive edge is our culture and mentality. Yes, our solution is new, we have one code base, and we embody customization by configuration and it always works. But we are truly different as we always strive to challenge market practices and keep investing in the best solution for the end customer. This means also that we challenge existing processes of our clients.

Financial IT: *Tell us about your clients and the problems that you solve for them. Please give us the real-life case example.*

Angelique Schouten: Most of our clients have existing clients and products running on old on premise legacy solutions. They are faced with old software that leads to high hardware costs and low performance. They manage a spaghetti of applications and have file cabinets for record keeping. Their customer service is old fashioned and mainly supporting paper-based processes and they have insufficient audit trail and basic analyt-

ics. To top this off they are usually confronted with vendors that do not understand their business as they have never sat at the other side of the table.

We help our clients by delivering a solution based on new processes, technology and business principles. By migrating to Ohpen, they achieve high levels of STP and are able to lower costs significantly whilst increasing customer satisfaction.

Financial IT: *What are the key benefits of cloud banking for banks and end users?*

Angelique Schouten: Cloud banking is nothing more than virtualisation of computing power. Instead of banks having to invest millions in hardware and allocate hundreds of IT staff to maintain the infrastructure, they now have access to unlimited outsourced computing power to support their processes enabling to better support their end users/ customers with modern processes and services. Both banks and end users will experience a service that is always available and upholds the highest security standards available in the market. In other words “it just works and it is more adaptable, reliable and compliant”.

Financial IT: *Many banks face challenges while moving their core services into cloud mainly because of security concerns. How do you solve this problem?*

Angelique Schouten: The security concerns are mostly based on the lack of knowledge and experience when talking about cloud. We make sure to explain what the cloud really is such as the fact that a virtual private cloud is being used (and not a public cloud), data at rest and in transit is encrypted and the same accreditations and certificates are obtained (e.g. ISAE3402 Type I and II and ISO27001). People often forget that when a bank moves their core services to the cloud, the same rules & regulations apply. A good example is the physical protection: you have a better chance in trying to locate and access the data centre of your bank than trying to find and

locate a datacentre of a large cloud provider like Amazon Web Services. These cloud providers take every single security measure they can. Why do you think even the likes of Nasa use cloud computing services? Banks usually quickly realise that using cloud technology often increases security compared to their existing solution.

Financial IT: *What trends are you witnessing nowadays in the cloud banking industry? What are your predictions for 2017?*

Angelique Schouten: The past few years a large number of banks, insurance companies and asset managers have tried using the cloud for testing environments or hosting websites. Besides seeing the benefits of cloud, they are starting to realise that their existing architecture is not digitalised to the extent that they can realise the tangible business results they need. Having a high degree of straight-through-processing, accessible data and an audit trail are the foundation of a solid digital architecture. An audit trail will result in valuable data and tangible business results when combining this with technology. My prediction is that financial services providers will focus more on tackling their entire digital architecture by replacing their core on premise applications with cloud based solutions to create a digital backbone of the organisation that can support a modern digitalised proposition.



About Angelique Schouten:

Angelique Schouten (aschouten@ohpen.com | @SchoutenA) has over a decade of experience in retail banking, insurance, asset management, and fintech at companies such as Aon and ING / NN Group. She was responsible for running the first direct-to-consumer robo-investor in the Netherlands at Ohpen before switching to the software division of the company. There, Angelique successfully led business devel-

opment, sales, and marketing activities, most recently as Chief Marketing Officer. In 2016, she established Ohpen's operations in the UK and was appointed to CEO of Ohpen UK. Angelique is a member of the Ohpen Board in the UK. She holds a Master's Degree in Business from Nyenrode University and a Bachelor's Degree in Economics and Marketing Management from Fontys University.

Balazs Gati,
Head of Department at K&H Bank Zrt.

HOW K&H BANK MADE BIG DATA MEANINGFUL

Security and data integrity are critical to the global financial services sector, and Hungarian-based K&H Bank is no different. It is one of the biggest commercial banks in Hungary as member of the KBC Group, and operates in many countries, with more than 200 branches in Hungary. As well as conventional retail and corporate banking products, it provides premium banking services, investment fund management, leasing, life insurance, property and liability insurance and securities trading.

Through the breadth and depth of its services, K&H Bank has begun to use technology to better its business. In the past, KBC Group ran data centre consolidation project which resulted in the bank's data centres also managing the data for several companies in the KBC group.

Following the success of this project, KBC Group turned to Balazs Gati (BG), head of the server and storage department, K&H Bank, to lead more digital transformation and hardware modernization projects for K&H Bank.

Financial IT: What changes are you seeing in the banking market?

Balazs Gati: The financial services sector is undergoing huge disruption. We've seen the rise of big data, peer-to-peer lending, bitcoin and blockchain, automated trading, faster payments, robo-advisors, digitalization, IoT, in the last few years. There's been a wave of innovation from fintech start-ups who have looked to leverage these new technologies in a way that appeals to increasingly tech-savvy customers.

These fintech businesses also like to characterise banks such as ourselves as a dying breed – the old school weighed down by tradition, legacy infrastructure, and a legacy culture, and therefore unable to respond quickly or sympathetically to customer needs and changing paradigms in over regulated environment. But that's just wishful thinking – of course we are responding and we are changing the way we work.

Financial services is an enormous and hugely important sector – accounting for about 20% of GDP in most developed economies, according to the OECD. But I think people forget that whether you think about a traditional bank or a fintech start-up, the market dynamics are the same. We all must adhere to strict regulations and we all have to guard our systems and processes against fraud. We still have to secure and keep the trust of our customers. In this regard, I believe the banks have – and will keep – the upper hand.

Financial IT: How do you combat the competition from these new entrants to the sector?

Balazs Gati: While trust is hugely important, our data is our secret weapon. Data analytics are key to how we are changing the way we work. Effective analytics are invaluable with fraud detection and prevention and allow us to personalize our offers to clients. They also allow us to streamline work processes and identify and resolve issues before they have an impact on clients. But time is of the essence

– we need this information to be available quickly so we can react appropriately and maintain our competitiveness.

Through being smart and very responsive with the way we use the huge amount of data we have, combined with the enforcement of rock-solid security measures, banks like ourselves can maintain a competitive advantage over new entrants to the sector.

Financial IT: What about the safety of the data you hold?

Balazs Gati: Of course new technology is always exciting, but with any new technology there comes the increased possibility of cybercrime. Financial services businesses are consistently targeted by highly sophisticated cyber criminals and the resulting reputational and financial damage can be irreparable – just think of the collapse of bitcoin business MtGox, the disruption at Bitstamp, and the hacks on Tesco Bank and Russia Central Bank last year. It's fundamental that security sits front and centre in our information systems for us to keep the trust and confidence of our customers.

Financial IT: What about the volume of data you have to deal with?

Balazs Gati: Our data volumes are growing all the time – we've been seeing a 30% increase year on year. These rising volumes of data can be challenging to manage, however. It's fair to say that our infrastructure was under pressure – making data available for analysis was taking two

About Balazs Gati:

Balazs Gati has worked for Hungarian-based K&H Bank for nearly twenty years. Currently he's head of server and desktop core infrastructure. In his role, Balazs is responsible for the K&H bank and its subsidiaries' desktop and server core infrastructure. Alongside general server and storage responsibilities, he looks after desktop infrastructure as well. On a personal level, Balazs is an internationally competitive ballroom dancer.



days and we were experiencing latency issues with some applications which were slowing down internal processes.

Financial IT: How are you responding to this challenge?

Balazs Gati: We have to maintain our customer service levels and employee engagement in order to stay competitive. So with our infrastructure under pressure and the increase in data volumes showing no sign of slowing down, we realised that we needed to look for a better and quicker way to provide staff and customers with the insights they need.

We began with a comprehensive evaluation of many different storage solutions. We ran a two-month benchmarking project at the end of which we decided we should replace our high-end storage tier with four Virtual Storage Platform G1000 (VSP G1000) systems from Hitachi. We're using this platform with a range of software from Hitachi, including storage virtualisation OS, command suite analytics, local replication and remote replication software.

We chose this solution because it ranked highly across all our criteria and the Hitachi VSP G1000 produced the fastest remote response time. We run all applications centrally and then use them from branches and offices, so this was important.

We're now using the solution to power over 100 mission critical applications, including Equation Branch Automation using SQL and e-bank information systems for retail banking. Other applications

include the K&H Bank and Insurance websites, latency-sensitive virtual machines running VMWare, Oracle Database with Oracle Real Application Clusters and Oracle Data Guard.

Financial IT: What improvements has the upgrade delivered?

Balazs Gati: We've been able to rework our data loading processes. As I mentioned, our data analysts previously had to wait two days for new business figures to become available in our data warehouse. This has now been reduced to a day. So we are able to analyse our data much faster which in turn enables us to make better decisions and react more quickly to market changes and trends.

We've also been able to change our back-up and recovery processes to take advantage of storage snapshot technology. By using snapshot technology we've cut recovery times by 50% – from 30 hours to 15 hours. It's now much easier for us to meet our recovery time objectives.

I should add that we're also leveraging the snapshot feature to provision test and development systems much more quickly than we could before. Our developers can now start using a new instance the same day as they request it – this is something which would not have been possible before the upgrade. The new user interface is easy for storage administrators to use, system management has been streamlined and productivity has been boosted.

We've been able to scale and adapt the solution, and have subsequently acquired

another two systems. We're also planning to deploy Hitachi Accelerated Flash to improve the performance of our database systems. This flash technology features high-speed data compression so that we can make effective use of our additional capacity.

Financial IT: What other steps are you taking to improve the management of your data?

Balazs Gati: Looking to the future, it's our aim to move the company towards greater digitalisation. We think that standardising the environment across the group companies will make training easier as operations and support engineers will be able to learn from each other. It should mean that storage administrators will be able to work across data centres and even countries to make sure that we get the best use out of our infrastructure and minimise any disruption.



APS 2017 PREDICTIONS

2016 saw an incredible rise in P2P lending, with firms like Uber and Deliveroo firmly integrating their services within everyday life.

The UK's sharing economy, or 'gig economy' has exploded in recent years becoming the fastest growing in Europe, increasing by 92% between 2014 and 2015 and transactions almost doubling to £7.4bn in 2015. It is set to expand at 30% per year over the next decade, generating £18bn of revenues for platforms and facilitating roughly £140bn worth of transactions per year by 2025.¹

The banking industry is one such industry that is being impacted by the sharing economy. Disenchanted with high street banks who can often take up to 2 weeks or longer to approve a business account, many of the freelancers, start-ups and SMEs operating in this space are looking for more convenient, speedier and, frankly, cheaper banking alternatives.

From collaboration to further emphasis on peer-to-peer lending, 2017 is set to be a game-changing year for the world of finance. But with more and more start-ups entering the UK sharing economy, such as JustPark, an app which allows people to find, book and pay for parking online, or Borrow My Doggy which matches dog owners and trusted borrowers for local walks, sitting and holiday care, there is a real opportunity for companies and investors to target these start-ups to help them grow and deliver strong returns to investors.

With this in mind, I have made my predictions on what this year will hold.

- **Financial uncertainty in the wake of Brexit will open more doors to challenger banking models.** Early reports suggest that Britain's banking giants are being threatened by challengers that have weathered the referendum storm and are investing heavily in new technology. Following our decision to leave the EU, many challengers to banks, not just banks, are capitalising on the pressures faced by the big banking names who will be forced to cut back on innovation. This will allow new, nimbler challengers to make their mark on the industry² and break up the oligopoly that banks have had on the network and markets for decades. 2017 will bring a real opportunity to combat lethargy caused by traditional banks, by delivering strong customer engagement and building trust.³ If you ever needed a proof point, the Bank of England's landmark announcement in June this year to allow non-banks the ability to access the UK national settlement scheme will provide a foundation in the future to make banking and the payment landscape far more competitive and beneficial to both consumers and SMEs.

- **But some of these new entrants will fail to deliver...** Innovation is key in this business, but established performers with great ideas, years of experience and rich knowledge of how the payment ecosystem works, will also be the ones that survive. Key players will need to deliver on collateral in order to compete in the market.
- **New regulation, especially the introduction of PSD2 will have a profound impact on the payments landscape.** Everyone is talking about Open Banking via APIs. Ironically, APIs are an old established concept in the technology world, but Payment Services Directive 2 (PSD2) will bring APIs into the mainstream by giving bank data access to a host of third party payment service providers (TPPs) to enhance the banking experience for customers. Those that will lead will leverage and enhance the financial data that is typically part of a transaction to provide a richer and frictionless payment experience.
- **Niche banking for millennials and beyond.** Customers will no longer have one bank account. The customer will have bank and payments accounts and will choose the provider that does a particular payment activity the best. Key niche solutions will emerge in bill payment, online purchase (beyond PayPal), travel, and even a niche solution for currency exchange (like Transferwise).
- **Collaboration will be king.** At APS, we've been collaborating with established players like the Post Office since 2015, allowing customers access to banking services at over 11,500 Post Office branches across the UK. Looking forward into 2017, these kinds of partnerships will be crucial when it comes to levelling the playing field between the banks and challengers and truly putting customers' needs first.
- **Rise of the entrepreneur.** With UK entrepreneurial performance at an all-time high, it is more important than ever to provide financial support to these great ideas. There is an opportunity for banking challengers to target this area of the market with services tailored towards the startup, easy, fast and simple banking. Successful challengers will not be measured by how much free banking they give away, but instead by creating an enhanced customer experience that has transparent fee structures that are great value.
- **Peer-to-peer lending.** The 2016 Autumn Statement showed us the real value of the 'sharing economy' this year, which increased by 92% in just one year. The industry has been fueled by technological progress allowing companies in this space to provide flexible and convenient solutions to the way people live and work. Set

¹ <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy.html>

² <http://www.telegraph.co.uk/business/2016/07/27/challenger-banks-defy-brexite-vote-with-booming-revenues/>
<http://www.thisismoney.co.uk/money/markets/article-3763979/Upstart-challenger-banks-soar-weathering-Brexit-storm-plan-new-raid-high-street.html>

³ Innovate Finance Conference



APS
financial

to expand at least 30% per year over the next decade, there is a real opportunity for banking challengers to take advantage of this new rapidly expanding industry and help start-ups to grow, and ultimately deliver strong returns to investors.

- Convenience is essential for the 'on the go' entrepreneur. Being able to manage payments and transfers, get instant access to your money or simply arrange overdrafts using the laptop, tablet, mobile browser or by going directly to the mobile app is essential for the busy entrepreneur. In light of this, we have expanded our mobile app functionality to provide a comprehensive suite of banking services available on our recently upgraded online site, including the ability to set up a new account via the Cashplus app. The platform provides a consistent, unified and fast user experience between any device, but it's a 'native' app that works with the device's built-in features. In other words, the app not only looks the way the customer expects, it behaves that way too.

This year is certain to be a volatile one for the financial markets following the uncertainty of Brexit, however there is plenty of opportunity ahead. Firms that adhere to regulations, collaborate and place bullet proof contingency plans in place, in light of Brexit, will remain competitive in the Fintech game.

About APS Financial

Advanced Payment Solutions Ltd (APS), trading under the name "APS financial", is a data-driven digital banking services pioneer, which aims to transform the UK's banking sector and be the first choice digital challenger to banks for SME and consumer customers.

Recently nominated as a finalist for Best Business Account for 2017 by Business Moneyfacts Awards, over the last 10 years, APS has developed a wide range of digital banking products.

Through its proprietary technologies, award winning products and superior in house data analytics, APS is able to offer nearly a million customers fast, simple and intelligent banking solutions to efficiently manage their finances and business cash flow.

Authorised and regulated by the Financial Conduct Authority, APS has a full permission credit licence for consumer credit activities (FRN 671140). A subsidiary of APS, APS Financial Ltd ("AFL") is authorised by the Financial Conduct Authority under the Electronic Money Regulations 2011 for the issuing of electronic money (FRN 900002).

AFL was the first non-bank issuer to gain MasterCard membership and is a member of both the Electronic Money and Emerging Payments Associations.

About Rich Wagner, CEO, APS financial

Rich Wagner is an innovative and entrepreneurial senior executive with 30 years of successful payment experience in US and UK financial services.

An alum of the University of Southern California, Rich is an expert in launching and managing high growth financial services businesses internationally. He has spent the last decade at the helm of APS financial, the trading name of Advanced Payment Solutions Ltd (APS), transforming the UK's banking landscape and empowering small businesses to thrive in our economy.

APS financial was born out of very real frustration with traditional banks. When Rich set up APS, he spent half a day filling out paperwork to open a business bank account and then had to wait a further four weeks for a decision. Like any small business, he needed something simple, fast and smart, from a service provider that understood his demand for immediacy.

In the decade that's followed since APS opened for business and offered an alternative to the traditional banks, the firm has served nearly one million UK customers, including 900,000 individuals and 70,000 UK start-ups and small businesses disenchanted with high street banks.

Although APS is not a bank, Rich and his team know banks very well – and know how they operate.

This knowledge has enabled them to launch products and services that have seen 60% year-on-year growth in demand since APS

was founded. In the last full financial year, APS processed nearly £1.7 billion of funds loaded or 'deposited' by customers into their accounts. This is a 54% growth on the previous financial year and over seven times the volume that we were processing just five years ago.

Rich, Chair of the Emerging Payments Association, and his experienced team have created one of the most awarded digital and mobile banking solutions in the industry.

Some of the results APS has delivered under Rich's leadership include:

- Five years of profitability, a period in which turnover has increased by almost threefold
- £4.1 million EBITDA profit in year ended March 2016, reflecting a CAGR of 69% over the last 4 years
- £25.3 million in revenue in year ended March 2016, reflecting a CAGR of 29% over the last 4 years
- 61% CAGR in revenue on SME services since 2014
- 172% CAGR in revenue for our consumer credit card since we actively started to serve this market
- 80% gross margin across the APS Group (excluding interest costs on credit funding)

A self-confessed foodie, wine buff and anglophile, US born Rich lives in London and is a huge fan of the Great British Bake-Off. He was recently voted CEO of the Year in the 2016 Wealth & Finance International Awards.

⁴ <http://fintechprofile.com/2015/06/24/rich-wagner-of-aps/>

⁵ <http://startups.co.uk/uk-entrepreneurial-performance-up-10-since-2011/>

⁶ Between 2014 and 2015. <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/outlook-for-the-sharing-economy-in-the-uk-2016.htm>

⁷ <http://www.bbc.co.uk/news/business-38082535>

⁸ <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/outlook-for-the-sharing-economy-in-the-uk-2016.html>

CDO CONCLAVE

15-16 MARCH, 2017 | DUBAI

www.cdoconclave.com

The digital age is compelling businesses to transform

DO YOU HAVE A STRATEGY FOR SURVIVAL?

The panel of expert speakers includes:

- **DIDIER BONNET**
Author, Leading Digital: Turning Technology into Business Transformation
- **CARLOS DOMINGO**
Chief New Business and Innovation Officer, du UAE
- **BHANU SHEKHAR**
Chief Digital Officer, GE, UAE
- **MATTHEW HOROBIN**
Head of Digital, Dubai Airports, UAE

DIGITAL EXCELLENCE AWARDS

Sponsored by **Oracle**

To submit a nomination, visit www.cdoconclave.com/awards

Register today and avail exclusive discounts!
Use promocode **F120**

info@umsconferences.com

 @CDOConclave

 CDO Conclave

 CDO Conclave

Lead Sponsor

ORACLE

Official Analytics Partner

sas THE POWER TO KNOW

Silver Sponsors

conversocial

Mahindra COMVIVA

NEWGEN

Optimal Strategy Group

Networking Sponsor

SAP

Promotional Partner

Bloomberg Businessweek Middle East

Official Media Partners

cnme computer news middle east

Reseller MIDDLE EAST

Financial IT Innovations in Technology

Organised By

ums conferences



Simon Street
VP of Product Strategy at Bolero International

DIGITISATION WILL HELP DELETE THE FRAUDSTERS FROM THE TRADE FINANCE SYSTEM

Tampering with paper documents remains the most common type of fraud, either to legitimise a fraudulent transaction or to use completely false information to raise finance. Earlier this year, for example, it was reported that an employee at China Citic Bank's Lanzhou city branch allegedly conspired with others to fake trade finance bills that were used as collateral to obtain a bankers' acceptance, which was later sold several times at discounted prices, leading to a \$147 million problem.

The prevalence of fraud prompted the head of trade service at the Agricultural Bank of China to say in Beijing last year that in the past, Chinese banks did not care about fraud, "just the paperwork". The problem with this statement is that it is the paperwork that is the problem.

Most infamously, the 2014 Qingdao scandal involved the use of fake warehouse receipts to obtain multiple loans totalling many hundreds of millions of dollars, creating turmoil in the operations of metals exporters.

Of course, fraud is not restricted to any particular region, market or modus operandi. One of the most frequently-encountered types of fraud around the world, for example, is double financing where the importer and exporter collaborate, either to create false turnover to obtain credit for the same trade before vanishing. Fraudulent paper documents are also often used to order goods in the name of a third party with a good credit risk rating, but for delivery to a different address.

In 2015, the marine indemnity insurance provider ITIC issued a warning to shipping intermediaries to check bills of lading and associated documentation after a Belgian shipping agent released six containers of castor oil valued at \$270,000 against a fraudulent bill of lading. The containers were to be shipped from India to Belgium and, although the bill of lading against which the ship agent released the cargo to the consignee appeared to be genuine, it turned out to be a forgery.

Yet it is not just individual companies that suffer. The mechanisms of international trade are also employed for the illicit or illegal transfer of billions of dollars from developing or emerging countries, particularly through over or under-invoicing. Global Financial Integrity, the Washington DC-based research and advocacy organisation calculates that between 2004 and 2013, \$7.8 trillion was lost in

this way to such economies, with more than 80 per cent transferred through over or under-invoicing.

Paper documents can be copied, forged, altered or lost.

On a digital platform, however, tampering becomes extremely difficult, as authentication and traceability through an audit trail is integral to the technology. Only the legal holder can access the document and whatever is done, is automatically logged. In addition, thanks to a high degree of automation, every participant is also relieved of the burdens of Know Your Customer protocols, vastly increasing the likelihood of compliance with anti-money laundering requirements around the globe. Using paper processes on the other hand, it is not possible to extract information quickly and simply to conduct sanctions, white or black-listing tests, all of which leaves an organisation highly exposed.

Digital processes also have stronger workflows with clear legally bound responsibilities. Whereas paper processes require laborious cross-checking of each party, transactions conducted over a digital platform are underpinned by compulsory subscription to a legally-enforceable rulebook, which in Bolero's case, is based on English common law. The requirements mean that any party signing a document will have done so under the authority of known companies with established credentials.

The absence of physical documents to forge or alter means a digital platform also makes it so much harder for fraudsters. Whereas paper has to be couriered around the globe, wasting time at every turn and all the while remaining invisible to those at risk, electronic trade documents or bank guarantees are instantly visible, with participating banks distributing them across a well-established and secure network. Access to the platform for those involved in the transaction is through secure name, password and location controls that have to be used on a specific PC, providing far greater security against unauthorised interference than is the case with the majority of networks.

Of course, fraud is constantly developing and different regions and countries can suddenly emerge as hotspots. The advantage of digital platforms is that they can be updated much faster to take into account new and emerging threats.

Moving from paper to digital processes will not only reduce operational risk, but also deliver major operational efficiencies, addressing not only the symptoms, but also the main cause of fraud – paper.

CFO^{ie.}

SAVE 20%
USE CODE
FT20

LEAD THE PATH TO FINANCIAL GROWTH

CFO RISING EAST SUMMIT

March 22 & 23, 2017 | Boston

Speakers include:

YAHOO!



Audi



Unilever

ebay[™]



Mark Aldred,
Head of International Sales, Auriga

DIGITAL TRANSFORMATION: FAREWELL TO THE TRADITIONAL BANK BRANCH?

Bank branch closures are a frequent news item here in the UK, but they don't necessarily herald the death of the bank branch. The trend reflects more on how customer behaviours and their requirements for banking services are changing. There is still a strong need for banks to have and evolve their bricks and mortar presence. The key is how can banks make branches part of their omnichannel strategy for improved customer service experience.

It is undoubtedly true that customers will choose a bank on the ease of use and reliability of their technology, but, as in the past, it will be the human interactions that create the trust that generates enhanced loyalty and a competitive advantage for banks in the future. Therefore, when making strategic decisions about bank branch networks, banks need to base their evaluation on how effective the branches are in retaining and attracting new customers. As well as how they improve the banks' profitability. The answer seems to be that fewer branches are needed to serve customers. Branch closures are happening across Europe and in the UK alone it's estimated that 40% of branches closed between 1989 and 2012.

The rate of closures is accelerating as customers change the way they bank. According to a study from the British Bankers Association (BBA), a branch has on average 71 visits a day which shows a 32% fall since 2011. By comparison there are 4.3 million logins into online banking sites and 11 million logins into mobile banking apps a day. Not to forget, spending using contactless cards, of which banks issued 15 million in 2015, has increased by 250% with £1.1 billion spent by March 2016.

Adapting the bank branch to these profound changes in customer behaviour is challenging but not impossible. While customers have a strong preference for autonomy in how they bank, they also value quality of service and personalised support and advice. This is

informing a new configuration for bank branches around self-service and personal customer service to handle customers' more complex questions and cross and up-sell other services and products. Even though we are seeing many closures, the BBA states that thousands of bank branches are being refurbished to make more space for meeting rooms. For example, Nationwide is in the midst of a £500 million programme to upgrade hundreds of branches while RBS refurbished over half of its branches in 2015 alone. On the other hand Barclays is using underutilised areas in its branches above or behind the main banking halls for its Eagle Labs, Barclays' mentoring programme to build a stronger relationship with its community.

The importance of having a physical presence on the High Street is important when banks are today directing their customers to use Post Offices and other agents for basic banking services. A hybrid digital bank can differentiate the branch from these offerings and optimise how staff can offer a better customer experience. A hybrid digital bank branch is centred around many more self-service banking machines for cash and account management with bank teller staff acting as customer service helpers and advisors. Using new technologies like touch screen self-service, kiosks with audio and video support as well as staff tablet applications all contribute to a more flexible and comfortable customer experience. Overall the branch becomes more tailored and responsive to customer needs including earlier and later opening hours.

In developing these new hybrid digital bank branch models, it is important to get automation process right. Despite their heavier use of digital technology, studies show that, even if some clients are conservative with their relationships with their bank, they expect banks to offer them new and convenient ways of interacting that conforms to their changing lifestyle. Therefore, providing a "seamless omni-

¹ British Bankers Association Report "Help At Hand", Summer 2016.
https://www.bba.org.uk/wp-content/uploads/2016/07/TWWBN3_WEB_Help-at-Hand-2016.pdf

About Mark Aldred:

Mark Aldred joined Auriga International during 2015 as Head of Sales based in its UK office. He has more than 25 years' experience in the sector, focusing throughout that time on the electronic delivery of financial services. Mark has held sales and leadership roles in leading Fintech companies, including ACI, Clear2Pay and Unisys. He has built and managed strategic relationships with Banks and other stakeholders across the Region and has developed markets for established businesses and start-ups alike.



channel” experience presents an opportunity to generate revenue and nurture the bank-customer relationship. The “digital branch” must be a positive addition and benefit rather than a dehumanizing “robo-bank”.

The ATM channel remains a very popular banking service for the consumer and the most frequently used point of contact between the bank and its customers. When integrated with a new generation of assisted and self-service banking terminals, it can strike the right balance and support the staff in branch, as customers respond well to offers and promotional information that are relevant to them. The ATM presents several opportunities to display promotional activities to customers as there are natural pauses where customers are waiting for identity authorisation to go through or to receive their cash. These moments present more opportunities for banks to generate revenue. For example, financial institutions can selectively promote specific credit card, mortgage or other financial products to those ATM users who are prequalified. As well as use third party advertising strategies such as prepaid vouchers for music or online gaming for extra revenue generation.

The key is how much the bank is ensuring the branch’s self-banking, and assisted banking systems are seamlessly integrated with all the other channels customers use including mobile and web.

So, what does this mean for bank customers who come into the hybrid digital branch?

The branch represents the real “glue” between physical and digital channels, because in the customer’s eyes there are no borders between mobile banking apps, ATMs, assisted-service devices or consultants. They are all manifestations of the same bank. So, when a customer inserts his or her card into a device in-branch, the system should recognise the individual and the bank employee in the branch

receives notification on his or her tablet, with updated information and personalised product offers. The tablet becomes a business tool, used to display brochures and connects via WiFi to an external monitor for an intuitive customer journey. And the mobile device is not just a way to target commercial opportunities; it is also a way to track self-service activities, allowing advisors to intervene in case the individual encounters difficulties or has a question during an operation. While most operations can be carried out by the customer, others require assistance. The tablet facilitates continuity of service even in the case of minor events, which increases their confidence in the use of automated services. Therefore, enabling the branch to deliver a consistent and well-orchestrated service across multiple consumer channels to meet changing customer behaviours.

In this new paradigm the bank staff and technology need to combine seamlessly to maximise the customers’ satisfaction and the sales potential of each interaction. To succeed in this new era, banks need to excel in the delivery of high touch, high value services that blends in the convenience of digital channels with a caring and tailored human element. Ultimately, those banks that can deliver real time and personalised customer information at the point of service will enhance the profitability of the customer relationships that they create.

The role of the bank branch isn’t disappearing but evolving. This does mean many less branches but those that continue will be the focus of investments in smarter customer service technology and skills. The branch will be an integral, not isolated part, of how banks provide better and more efficient services. Already we’re seeing branches being re-configured to be more attractive to customers with staff taking on new roles and a new generation of self-service and assisted banking devices appearing to offer a wider and richer set of facilities and services.

² “Preferred channels to access bank services in Great Britain as of January 2014”, statista.com, 2014.
<https://www.statista.com/statistics/386812/great-britain-uk-preferred-banking-channels>

A portrait of Richard Price, a middle-aged man with short, curly brown hair, smiling warmly. He is wearing a dark blue suit jacket over a white collared shirt. The background is a blurred office interior with warm lighting.

A Q&A with Richard Price,
Sales Director FSI,
UK & Ireland, TIBCO Software

ACHIEVING DIGITAL TRANSFORMATION IN BANKING

About Richard Price :

Richard is an experienced sales leader, with extensive IT Sales, Marketing and Partner enablement experience in EMEA. Having joined TIBCO in late 2016 to bring to the team his industry knowledge in the FSI vertical and leadership, Richard will assist the team to help clients and new customers (and their partners) deliver business advantage with the challenges they face across the financial services and insurance sectors.

Prior to joining TIBCO, Richard held a number of senior sales positions at Open Text over a period of eighteen years, and has a proven track record running sales and partner collaboration across a number of financial services sectors including Retail, Corporate and Investment Banking, as well as General, Life and Specialist Insurance.

What are the main barriers to banks achieving digital transformation?

Richard Price: Legacy core platforms continue to be the primary barrier, as they are simply not suited to meeting the challenges that banks face in the digital economy. In addition, the traditionally cautious – in technology terms – financial services industry is being forced to address a rapidly moving competitive landscape. The banking industry, in particular, is being flooded by a new generation of competitors not only offering all-digital services, but also using strong analytics to understand and serve their customers better.

In this fiercely competitive sector, banks cannot afford to lose out to disruptors by being held back by dated systems and the traditional ways of doing things. Poor analytical capabilities will leave the laggards wanting, as banks need to be reactive and proactive to meet and exceed customer expectations in terms of new products/services, as well as agile enough to respond to market drivers.

A further consideration, and something that the financial services industry will always have to contend with, is regulation and compliance which can be a real barrier to digital transformation due to cross-border differences in legislative requirements. Now is the time to encourage collaboration and to work with the various regulators to modernise the framework to better enable the move to more digital interaction.

Is there a need to re-imagine the business models for banking?

Richard Price: Undoubtedly yes. Transformation is about fundamental change – not something this industry is known for – requiring banks to change their business models and operational practices as well as their technology to reflect the needs of a customer market increasingly shaped by the digital world.

Digitalisation is undoubtedly compelling the industry to revisit its business models to engage with and retain customers. And that can only be done by focussing those models on what the customer sees in terms of factors such as speed of delivery, multi-channel presence, responsiveness and accuracy, while also delivering value-add services, simplifying access and allowing for greater self-service and personalisation plus, of course, addressing ever present security concerns.

This notion is hardly ground breaking, we have been discussing and pursuing an improved customer experience for years. However, as customer expectations shift, development of the ‘edge’ – essentially the customer touchpoints – is imperative in order to gain digital advantage. While it is important to ensure that your infrastructure, analytics etc. are up to the job, for customers it’s really all about the interface – the banking apps that deliver better and faster capabilities and services. To focus on the customer is to give power to the users at that edge and it’s this that distinguishes a particular financial service and makes it stand out.

How can banks move from digital enablement to digital transformation?

Richard Price: Instead of re-imagining business models, many banks are simply embracing digital technologies to undertake their current activities. The products and services have not been changed, just delivered via different channels such as mobile, tablet or social media with the net effect of only delivering them slightly better.

Banks must now develop a much deeper understanding of their customers and build a value proposition that addresses the needs of their target audience. They should not consider digital channels to be a cost centre, but look at every interaction or initiative as an opportunity to drive value in the form of a better customer experience, revenue

growth or both. They must realise that the future is real-time, relevant, personalised, and interactive.

The shift from enablement to transformation will also require a move away from siloed digital platforms, processes and initiatives to connected platforms. It will be driven by moving from limited analytics to augmented intelligence, with agile and iterative processes, which will move institutions from being reactive to proactive and predictive. All of which will see establishments move from chasing the market with products and services, to being market leaders.

In terms of the tools required to deliver upon this, we are seeing some interesting trends. Financial services APIs are the fastest growing web API category by industry vertical, while mobile app investment tripled between 2012 and 2014, with 77% of banks now having a mobile app and the rest planning to extend that capability this year. Electronic payments are also driving significant digital disruption, as is the rise of separate innovation “garages” or departments.

A genuine shift to digital transformation is when banks embrace all of the above in order to launch a digital brand, digitise processes, modernise the digital experience or launch new digital capabilities.

What are the benefits for those who achieve true digital transformation?

Richard Price: The benefits are as vast and great as the negative effects of not achieving digital transformation. In blindingly simple terms, delivering what your customer demands and how they demand it will, ultimately, improve customer loyalty and increase further revenues through cross-selling opportunities and the additional revenue channels that will be opened up. The effect on reputation will also be marked as a bank is seen to move from being a traditional bricks and mortar establishment, to a product and services leader, delivering superior standards of service when compared to its competitors.

Beyond this, richness of data coupled with sufficient tools to understand and provide insight further opens up new capabilities. In particular, by using preventative and predictive analytics to understand the customer better and reduce customer churn while also enabling operational risk modelling to support new channels and processes.

While these benefits can help to provide strategic advantage, one must not forget the cornerstone of the financial services industry – compliance and regulation. When done properly, with digital transformation comes a clearer path to compliant businesses and services, with capital adequacy ensured and improved associated process capture for fraud detection.

There are plenty of opportunities for change in terms of the digital experience, however, there isn’t much time. Traditional banks already have ground to make up on newcomers making headway with aspects such as better use of customer data or digital wallets. They cannot afford to slip further behind by not having effective strategies in areas such as these.

The truest manifestation of digital excellence actually comes full circle when banks are able to unite their physical bricks and mortar premises with a rich digital experience that drives customers back to physical sites when appropriate for the customer to do so. In short, when fully implemented, a digital experience not only reduces churn and attracts new customers, but it can make the physical assets operate more effectively as an existing channel and – as customer numbers increase – optimizes their efficiency for competitive advantage.

Digital transformation is no longer an option, it’s a necessity.

UNCERTAIN TIMES CALL FOR SOPHISTICATED ANALYSIS AND THE ADOPTION OF A SMART RISK CULTURE

Uncertainty is the watchword for the times we are living in right now. The implications of the UK's exit from the European Union, the recent inauguration of a new and controversial US President and the fluctuations of the currency are just three of many factors that combine to create a changeable business environment.

The overall economic picture is mixed. According to the Financial Times, services over the past year have expanded robustly, while construction and manufacturing have struggled. However, whilst consumer confidence took a post-Brexit hit, it quickly recovered which has also supported the continuing rise in retail sales volumes.

The outlook for 2017, therefore, is hard to predict. Economic growth may slow, but this will largely depend on the outcome of the Brexit negotiations, which are likely to have a delaying effect on business investment plans.

For many organisations, the lessons learned during eight years of recession will stand them in good stead while we wait for

the situation to level out. On a day to day basis, they are practiced at looking out for the warning signs and when it comes to managing their own financial health they have implemented credit risk assessments and procedures to guard against payment defaults and bad debts.

In some industries, eg. eCommerce and retail or the steel and oil sector, there are a range of factors which present higher than average financial risks to suppliers. This can leave them unsure about entering into trade credit arrangements and searching for reassurance.

So how can companies assess the risks and balance these against the opportunities? They can start by implementing detailed analysis in order to gain informed risk assessments, and there are two main approaches.

The first is by leveraging big data so that processes can be transformed. This could take time to implement but it will have a considerable impact, particularly in the finance department, where the efficiency

of systems based on multiple mixed ledgers has long been questioned and found wanting.

The advantages of combining all the data that a company has on its customers and the analysis that can be drawn from the data means that finance directors and credit managers have actionable insight. It might require a considerable change to IT systems, but this challenge has to be weighed up against the increase in financial risk of using complex and in some cases discordant systems. The first step, therefore, is to deal with existing, entrenched processes and silos that still remain in many organisations. How can information that is fragmented within different departments, be combined into a single, useful function that gives a 360° view of the customer, and even more importantly, how can that then be translated into vital analysis?

The key is to start small. If manageable data and analytics projects in specific departments result in tangible benefits,

¹ <https://ft.com/sites/numbers/economies/uk>

the value of them to the company will increase. Credit managers should focus on easy wins, data that can analyse trade payment behaviour, for example. This provides an overview of the characteristics of customer payments that allows credit managers to form a case-by-case view on credit limits and access. It puts them firmly in control and it gives them the tools to bring siloed teams and departments together, to collaborate and combine efforts for optimum return. It is actually to the benefit of all operational employees, not just credit managers but right through to sales directors and CFOs to promote big data as a means to make good financial decisions. The net result is that big data projects are seen to have real value and those invested in the process gain board-level endorsement to extend them more broadly.

The second approach to analysis is by using a third-party consulting service. This will provide a company with access to expert risk analysts with real-time information on any buyer in any country, so it is as applicable to local trade credit management as it is to organisations who are trading overseas. As well as risk assessments, this type of service can provide broader advice on risk issues and sectors and geographies to be wary of through its constant monitoring of the landscape.

The most effective third-party risk analyst services also offer on-call expert opinions. This is helpful for finance directors or credit managers who recognise that there may be a risk with a potential buyer, but are unable to access the appropriate information. The insight that individual advisors can provide can realise significant savings in time and money.

In conjunction with analysis, companies also need to consider the issue of company culture. The reason that silos exist in many companies is because individuals and departments lack the appropriate mechanisms and incentives to share data. Credit managers rely on the sharing of data, whether it's with sales departments or back-office functions or anywhere in the order to cash cycle. Their priority is establishing a smart risk culture – a means by which their company can increase its tolerance to financial risk – and the best way of making this work is by gaining the involvement of the entire organisation and by implementing financial IT systems or software that can be shared across the company.

Here are some guidelines for achieving a smart risk culture that start with improved practices:

- **Manage debts** – Monies owed, on average, amount to one third of the balance sheet. This is costly, in terms of the time spent chasing money and the effort to secure short-term financing. Look at adopting mechanisms that automate credit management and control processes.
- **Involve all levels of the organisation.** The only way to effectively implement processes for identifying, analysing and managing exposure to risk is by involving all staff connected to the process from credit controllers through to the sales team. Their insight on customers will be essential.
- **Be selective about customers.** Carry out detailed analysis to identify their trading history and the markets they operate in. Work with the sales team to qualify prospects, then make thorough credit checks and implement robust financial negotiations. Balance the benefits of a commercial relationship and the risks.
- **Monitor customers.** Track their financial health and implement a faster response to negative information to reduce exposure to risk. If the intelligence says that their financial situation and credit rating has improved, relax credit terms.
- **If appropriate, consider transferring risk to a credit insurer.** A credit insurance policy provides data on clients that outlines the risk exposure to help with informed decision making. The recovery of past-due claims is in the hands of the credit insurer, and companies receive compensation regardless of whether the debt is finally paid to the insurer or not.
- **Control export activities.** Outside factors, whether political, commercial, financial, logistical or legal add to the risk environment. A credit risk management policy is useful for automating a significant portion of the most important processes, such as monitoring changes to the customer's commercial environment, or even tracking changes in Terms and Conditions.

A combination of a smart risk culture and the implementation of technology solutions that can leverage customer information and deliver external intelligence puts financial control back into the organisation increasing its tolerance to risk. It's a balance worth achieving in these uncertain times.



Mike Feldwick,
Head of UK & Ireland at Tinubu Square



Hank Uberoi,
Chief Executive Officer, Earthport

2017 – PREPARE FOR ANOTHER ROLLER- COASTER RIDE

Crystal ball gazing is – ironically – an unpredictable business. If we consider that 2016 was one of the most disruptive years on record, with so many different factors influencing financial markets, geopolitics, business and social order, it is no surprise that the cross-border payments industry was also in a state of constant flux.

So as we look deep into 2017, with a regulatory environment that continues to impact financial institutions worldwide, we can safely anticipate continued change.

There are a number of indications that 2017 is poised to be the year that the move away from traditional correspondent banking for low value cross-border payments starts to gather pace. This has been simmering away for some time but in 2016, it became clear that the old ways were starting to become redundant and that the practicalities of the model we have used for decades no longer tick the right boxes for clients.

Why is this? There are many reasons why correspondent banking, in its old form, will be consigned to the history books – and most of them concern economics and efficiency.

Regulation, for example PSD2, Basel III or Dodd-Frank, will continue to influence the financial markets, and quite acutely, the banking sector. In fact, the tightening regulation around capital adequacy brought about by Basel III will focus banks on the problems in the traditional correspondent banking system, namely capacity around liquidity positions, uncertainties around settlement time and a lack of predictability with regards to fees and charges.

PSD2 has already created considerable angst among the banking sector but it represents an opportunity as well as a challenge.



While PSD2 will trigger a new theatre of competition, one of its consequences, the increased use of APIs, will enable an entirely new ecosystem of innovation with the customer's interest at its core.

Loss of (risk) appetite

While this is in process, banks continue to de-risk across their businesses, resulting in retractions from some markets and geographies, severely reduced client bases and hard-hitting – and perhaps damaging – cost-efficiency programmes.

Many banks are reducing their global footprint while they aggressively strive to reduce costs. While this may cause some pain, it may also create openings for other institutions and perhaps drive some consolidation. At the same time, there is a school of thought that suggests de-risking is actually creating other risks by pushing people towards a 'grey economy' that operates beneath the regulatory radar. It was interesting to hear in Davos that one leading bank CEO talked of a positive future for banks but admitted that getting to that point would be very uncomfortable.

Distributed ledger technology

Of course, the world is currently being seduced by distributed ledger technology (DLT). Certainly, DLT is part of the future landscape that we are heading for and in 2017 we shall see further steps towards embedding this new technology into everyday business. However, we must resist the temptation to bill DLT as a panacea, since payments involve a degree of complexity that requires more than this technology alone. It is likely to be just one weapon in our armoury as we move towards utility-type solutions that deliver more speed, efficiency and transparency, allowing us to capitalise on the exponential growth of cross-border payments. T

There are, however, many problems with the current model of cross-border payments that cannot be fixed by technology. They require a new approach or model of the type Earthport offers, incorporating hybrid delivery models that include DLT.

In 2017, we should see greater investment on the part of banks in exploring DLT as part of their digitalisation initiatives. In 2016, banks spent USD 75m on blockchain/DLT and this is expected to grow to USD 300m by 2018. At the moment, most are not sure how they can optimally use DLT, but you can be certain that once the first movers are in place, adoption will become contagious.

It has become increasingly obvious that the technology behind blockchain is capable of giving us so much more. DLT is a broad and deep conversation that is confronting the very nature and culture of financial markets, and in particular, international payments. The regulatory landscape demands there is a lot of hard work still required, including the validation of regulatory and legal compliance solutions, getting technology and infrastructure production-ready, migrating existing volume and revenue to the new DLT, as well as expanding to new use cases to finally monetise the investment and reap the reward. Many see DLT as being long overdue, but the metamorphosis is underway.

So it is clear now that the world has accepted that change is inevitable and already in progress. The question that needs to

be answered is, who will provide the services that our customers now demand?

Collaboration

In 2016 a level of peaceful co-existence emerged between banks and fintechs. There is now a considerable amount of mutual back-scratching going on in the industry, as everyone starts to realise that both sides of the equation need each other. This sea change will surely flourish further in 2017, as banks and fintechs develop partnerships and reasons to collaborate. Banks have had so many issues to deal with, against a backdrop of heightened regulation, changing client behaviour, greater competition and technology challenges, that they need the sort of partnerships that fintechs can provide.

Likewise, we are now reaching a stage of the 'fintech revolution' where these dynamic new arrivals need the banks to acquire scale and customer access. This latest phase is basically everyone working together for a better tomorrow. At Earthport, we have already experienced, first-hand, just how compelling the link-up between banks, fintechs and payment providers can be.

Much will be determined by how the banking sector shakes out in 2017. Banks will continue to assess what they really want to do, and what they can do, in the years ahead. They will undoubtedly seek to concentrate their efforts on recurring transactional business, which – with its focus on fee-based business – should translate into growth for the global transaction banking industry. As a result, and for a number of reasons, banks will be naturally less reliant on risk-consumptive business.

Strategic partnerships

Banks have been going through very draconian cost-examination exercises, looking at what type of business still makes sense. This won't necessarily include low value cross-border payments and other low-margin corners of the payments sector. They may decide to partner with other firms or become part of consortiums for those areas of payments that are no longer viable as stand-alone operations.

Creating a better business world is also a priority for our clients. In 2017, as people become more open and inquisitive, we can expect to see more strategic dialogue between providers and their clients. They now recognise that a new breed of provider can add choice, greater flexibility and more efficiency to the payments experience.

Of course, without due focus on the safety and security of our industry, all of this could become compromised. Increasingly, our clients are concerned about the growing threat of cybercrime. Conversations at conferences and other events inevitably turn to security and that's why greater resources are being devoted to ensuring the system maintains its integrity – after all, the more sophisticated our systems become, the more inventive criminals become.

Forecasting can be a tricky and risky business – in 2016 we all saw that the unexpected can happen and completely confound the experts. One thing, however, is clear: the dramatic rate of progress we have witnessed over the past few years will be sustained, which means that the cross-border payments arena will continue to be just as dynamic as it has been over the past 12 months.

PREDICTIONS FOR 2017

ABACUS GROUP

Tom Cole

Director – EMEA, Abacus Group



Hedge funds were glad to see 2016 come to a close. While the year ended on an up-note, overall 2016 saw the greatest amount of asset out-flows and fund closures since 2009. As new capital returns, investors are looking for improvements with respect to operational capabilities and investment management processes.

One of the biggest priorities in 2017 will be cybersecurity. As we deal with the daily onslaught of news regarding election hacking in the recent United States election, we only expect the importance around cybersecurity protection to increase. Investment in security tools, services and personnel will continue at hedge funds and service providers. Fund managers will be pressed by investors to prove they are adhering to industry best practices with respect to cybersecurity.

Compliance requirements will also continue to increase. You will see more services and products come to market with the goal of helping fund managers comply with these new requirements. Hedge fund operating executives will see more emphasis on providing real-time transparency into their operations, versus historically only having to attest they are in compliance.

Predictive analytics/machine learning is still in its infancy at hedge funds, but will become more important starting this year. Several of the largest hedge funds are allocating more capital for hiring data scientists and investing in compute resources to better predict market movements and automate trading and sometimes decision making. The machines are coming. However, they will come slowly. 2017 will serve as the starting point for this new influence.

DATAART

Cliff Moyce,

Global Head, Finance Practice



Financial Services and Capital Markets

- Cyber security and data protection will become major board-level concerns as financial institutions realize that failing to protect customer information will be their biggest source of regulatory non-compliance and reputational risk. Organizations will invest heavily in correcting technology vulnerabilities, lax cultures and poor processes. As a result, data management in all its forms will dominate 2017.
- Rapid digitalization of customer-facing services will be a matter of organizational life and death as e-commerce and fintech elevate expectations for the optimal user experience (UX). E-commerce

and fintech will increasingly provide attractive alternatives to traditional financial services organizations.

- Artificial Intelligence (AI) and automated business process management (BPM), including machine learning (ML) supported systems, will provide a competitive advantage as well as productivity improvements.
- Cloud Computing will continue to evolve into a mission-critical element in the operational infrastructures of financial institutions, becoming the best route to resolving legacy system headaches and reducing operational risk to the lowest possible levels. Without a cloud strategy, organizations will not be able to compete in the marketplace.

EWISE

David Hamilton,

Chief Executive Officer



In the UK, the Access-2-Accounts provision within PSD2 along with parallel initiatives including OpenBank and recently published remedies from the CMA will introduce a new wave of technology and competitive openness. This new world of “openness” will likely present opportunity and challenge to both sides of the value-chain; banks and third-party processors.

PSD2, OpenBank and the CMA remedies introduce “front doors” to data to which banks will need to provide third parties with keys. These freshly mandated “open APIs” will be a milestone in banking technology and regulation, creating tremendous industry buzz.

However, considering the scope of each initiative and their projected implementation timetables along with their specification principles, it is apparent that PSD2, OpenBank and the CMA remedies offer access to the same thing; namely the end-users basic current account, albeit with different technical standards and implementations. Essentially three different “front doors”. Worse still, these doors lead into the same room. While all three initiatives address the scope of the basic current account, each initiative varies in its inclusion of credit card, overdrafts and savings accounts. Furthermore, only the CMA remedies address loan products, and these are in the context of business accounts only.

With the average consumer and small business customer possessing a broad range of financial services products including current accounts, credit cards, personal loans, leases, insurance, ISAs and various other investment and credit accounts, the scope of these “open API” initiatives might leave some of us feeling underwhelmed when it comes to providing end-users with innovative, convenient and value-added services driven by a truly comprehensive picture of their financial relationships. One might even ask how, without a platform able to aggregate data from a comprehensive range of target

PREDICTIONS FOR 2017

institutions and a broad list of product types, a third-party processor could build a sustainable business model given how limited and crowded the front room will be.

PSD2, Open Banking and the CMA remedies simultaneously introduce complexity and a narrow scope. We enter 2017 with more questions than answers.

LOMBARD RISK

Mike Payne,
Chief Technology Officer



Technology is transforming financial services and that will remain a key trend in 2017. While headlines are often captured by robotics, artificial intelligence and the Fourth Industrial Revolution, much of today's innovation is happening in the back office.

Tighter and more complex regulatory and compliance requirements means compliance is at the centre of many financial technology strategies.

BASEL IV means firms need to continually track and report regulatory compliance. The more enlightened are seeing regulatory reporting processes as a by-product of wider data discovery and reporting. By using technology to efficiently monitor and analyse data they're getting real insight into business and customer demands.

Agile financial technology specialists are able to adopt the latest technologies and build specialist applications. Successful institutions will be those that develop a culture that allows them to partner and leverage this pool of innovation and specialism and seamlessly integrate them into their technology and business architectures.

Embracing technology requires firms to embrace new ways of working and commit to continuous staff training. No institution can hope to have the knowledge and agility to do this in isolation. Working with specialists holds the key to creating technology solutions that deliver value for firms, clients and shareholders.

ONE MARKET DATA

Louis Lovas,
Director of solutions



In 2016 we saw an increased use of cloud computing by firms, on private and public cloud alike. Infrastructure and platforms matured drawing more users to outsource the next level of their services. Cloud deployments provide advantages in managing the scale through higher levels of data protection and fault tolerance at a cost saving.

Focusing on solutions and leveraging the data dump is the fuel that drives the engine across the entire trade life cycle – beginning with alpha discovery, to trading algorithm design, then development and back-testing.

As competition and thinning margins increase, trading firms will continue in 2017 to search for talent and technology to achieve alpha. We can expect to see machine learning continuing to surge in quant finance, with many of its capabilities not yet explored, especially within cloud infrastructures. It will be interesting to see how and if elastic analytics for machine learning can be used for algo trading, market surveillance as a predictive tool and how the role of humans on the trading floor will be impacted.

OTAS

Tom Doris,
Chief Executive Officer



While intelligent trading solutions powered by artificial intelligence and machine learning have been around for some time, this trend remained a high priority for many firms and will continue to be a huge trend in 2017. For a while the term "artificial intelligence" was more of a buzz-word, but 2016 began to see a move away from the trendiness and towards application. The focus was on what these technologies can actually do, when these technologies are most needed and give users the most value add, and the role the technologies will play on the trading desk and more broadly throughout the firm. Traders are overwhelmed with a sea of market data and this has been a challenge on the trading desk for years. Today, we have enhanced decision support and automated analytical tools to help the trader parse through the data and find what is most valuable, or are afforded virtual assistance to have attention diverted to where it is most needed. Natural language processing and generation is also huge. For the first time, technology can give traders a report written in plain-English, making information easily digestible and actionable. As with any new technology, the main challenge after the hype has died down and implementation has started becomes about getting the technologies leveraged in the right places and working out any kinks. Specifically in 2017, a challenge will be that the focus will shift from technology on the trading desk to impending regulations. As the industry shifts to a more collaborative, open-source ecosystem model, firms will work together to address these issues and where it is appropriate to engage technology as a solution.

PREDICTIONS FOR 2017

SAPIENT GLOBAL MARKETS

Mahima Gupta,

Senior Manager with the Solutions team



With less than a year to go before MiFID II comes into force, the introduction of new reportable products and a number of other developments are increasing the complexity and breadth of trade and transaction reporting.

A well-established challenge for regulatory compliance projects is the lack of time to look for strategic solutions that unite the front and back office to set up the appropriate compliance and data governance structures. The other side of the challenge is the lack of internal expertise or up front analysis budget. This creates an environment of constant flux where manpower is pulled in different directions in order to maintain tactical and siloed systems that struggle to keep pace with the depth and breadth MiFID II requires.

As regulators seek more pre- and post-trade transparency, use more data identifiers and look for efficient reconciliation, the need for a comprehensive rethink of how firms are managing data, operational systems, external providers and costs is clear.

MiFID II offers an opportunity for firms to rethink reporting infrastructures to create a more efficient, cost-effective and sustainable approach to regulatory reporting across multiple regimes.

The ability to observe and learn from what did and didn't work under previous regimes, particularly for the operating model and control framework that has facilitated reporting, will improve compliance and data governance processes. It will also support a more strategic approach that offers the capacity to adjust existing, and expand to new, regulations and will yield savings in both on going operational team overhead and technology footprint.

THE SMART CUBE

Bhawana Khurana,

Vice President, Client Solutions – Financial Services



Between the Brexit referendum and the US presidential election outcome, 2016 was a year marked by surprises. The financial markets reacted to both events and even those who correctly predicted their outcomes were not guaranteed success in the financial markets, due to volatile asset prices and extremes in investor sentiment. Investors must use market insights gained from the events of 2016 to prepare for the upcoming year.

2016 taught us that geopolitical risk is real, and cannot be underestimated. The impacts of Brexit and the US presidential election

on markets and currencies have shown that it is imperative that geopolitical risks be taken into account when considering investments. While the impact of such global events is always difficult to predict and avoid, broad diversification across asset classes can certainly help.

It has been demonstrated that long-term investment plans and patience with market volatility are necessary. In the first half of 2016, the collapse of the Chinese economy and a banking crisis in Europe seemed to be almost inevitable. However, fund managers who stuck with their stock picks through sharp volatility periods such as this were those who ended up beating the market in 2016.

Smart beta, which offers minimum volatility and variance, is on the rise in the ETF space. As we've seen, the impact of geopolitical events like Brexit are felt with spikes in market volatility, which makes smart beta strategies – active (requiring periodic rebalancing) strategies with passive (rule-based and transparent) characteristics – all the more appealing to investors.

SMARTKARMA

Jon Foster,

Co-Founder



With MiFID II operational by 2018, change must happen in the investment research industry. It picked up speed in 2016, but will move a lot faster in 2017. The unbundling of research from execution presents many issues that the industry must address, in particular how to value research and how to make sure the right research is available at any given time. Even today, many buy side firms are still not sure where the budget for research spend will sit.

This regulatory push is set alongside a demand-driven pull from the users of research. As users struggle to cope with an overload of information from multiple sources producing the same waterfront coverage, investors similarly struggle to find the best research to support alpha generation.

Looking into 2017, there are numerous, innovative models being trialled in the industry to value research appropriately. For example, Societe Generale will now provide Asian research via an online, curated platform from fintech start-up Smartkarma. Other market options include a la carte purchasing solutions, auctioning of analysts' time or subscription plans, to highlight a few.

The potential for improved productivity in the current market environment means there is also a commercial imperative to change the dated PDF document/email distribution approach. Similar to the Spotify's music model, which now shows a far greater breadth of music consumption due to the ease of discovering new songs, having easy-to-discover research that fits the users' needs will increase the use of the platform, and provide greater benefit to the user as well.



- **front-to-back** STP solutions
- **component-based SOA** architecture
- retail, corporate, universal **banking**
- a next generation **core banking** system
- an advanced **loan origination** system
- **business processes** management
- **omni-channel** enablement

www.diasoft.com / info@diasoft.com



Stacy Gorkoff,
VP, Marketing
INETCO Systems Limited

RUNNING AT THE SPEED OF DATA – REAL-TIME USE CASES THAT GET BANKS MOVING

Banks operate in a world of time-sensitive opportunities. From a customer perspective, instant notification and interaction with their financial institutions is becoming the expected norm, especially for millennials. From an operational and security perspective, the speed of reaction affects not only customer experience, but also reputation and profitability. This is why the notion of real-time is becoming more important.

We are generating and collecting more information about customers than ever before. If analysis of this information takes days, or even weeks, banks will find they lack a required level of responsiveness when it comes to building lasting customer relationships, dealing with security breaches and managing operational performance issues. With real-time data, financial organizations can move faster and smarter – exactly what every bank needs to boost financial performance, improve customer experiences, and manage risks.

Why real-time data now?

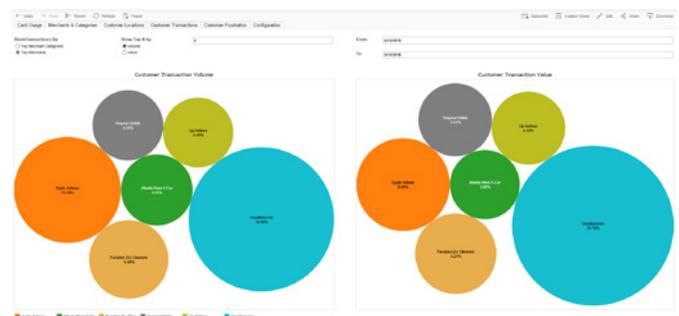
The adoption of real-time data within the banking industry is on the upswing as analytics skills and technologies advance and scale. There are more and more teams within a bank that claim to need real-time data to do their jobs – marketing, IT, channel operations, security, fraud prevention, customer experience and support to name a few. Use cases continue to expand as financial institutions invest in data streaming feeds and faster processing around functions such as high-volume customer transactions, fraud and risk management.

The ability to analyze increasingly massive (and increasingly diverse), datasets in real-time has become way more affordable with the Cloud and open source projects such as Apache Hadoop and Spark. A new generation of on-demand, vertical-specific data visualization solutions has made it possible for banks to develop intelligent “lenses” that deliver relevant data to each stakeholder or team involved in positioning the customer center stage. Behind the scenes of these user interfaces for “novice” analysts are advanced dynamic models and algorithms designed to continuously learn and predict customer behaviors. These advancements in storage, visualization and modeling capabilities are making real-time customer data more valuable

than ever before. Here are some use case examples of where real-time data is making a difference today:

Offering the right products for customers, at the right time in their lives

Life events present fantastic opportunities for banks to customize their services to meet the customer’s needs. These could include getting married, retiring, buying a house, starting a new job, buying a car, having a child or securing a student loan. Real-time customer interaction data, perhaps gathered through a mixture of financial transactions (ie: transactions showing the purchase of an engagement ring and a honeymoon package), branch inquiries, online or mobile search queries and social media channels can help banks identify when these life decisions are being considered by their customers. The bank can react accordingly by preparing innovative offers and presenting targeted cross-selling opportunities in a timely manner.

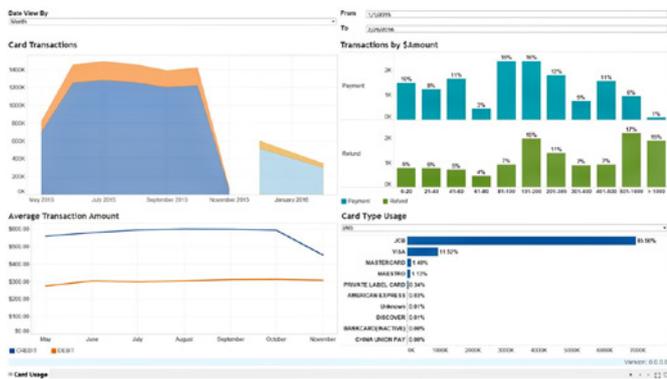


Responding to ever-shifting customer habits and expectations

Continuing advancements in processing power have made it easier for banks to apply cognitive computing, predictive modelling and machine learning algorithms to their customer segmentation processes.

About Stacy Gorkoff:

Stacy has spent 15+ years working with leading edge technology companies such as INETCO. She is passionate about fintech innovation, and loves helping customers uncover new revenue streams and deliver an amazing customer experience.



millions of users. Financial organizations can use this real-time data feed, and either team up with service providers or build out their own customer-facing mobile applications that help coach customers towards better financial habits. These money monitoring applications can deliver meaningful messages that increase interaction and help customers track where they are at with their banking. Examples include overdraft warning alerts, spending breakdown analysis, reminders to pay bills or transfer excess cash to savings. Applications that are built to accept real-time data can also be used to communicate targeted offers from merchant partners, encourage progress towards savings goals, or drive creative programs to save money such as a brown bag lunch week.

Both structured and unstructured consumer data (such as emails or text messages) can now be combined together in real-time, and analyzed in a way that makes it possible to anticipate customer needs and get smarter about them over time.

Based on real-time information involving demographics, life events and other relative things (such as payroll changes, shopping habits, cash flows, spending habits, channel usage and card preferences), marketing and customer experience teams can dynamically segment their customer base in more relevant ways and quickly respond to shifting customer habits and expectations. Take, for example, if a financial institution has just received real-time data that indicates a customer is thinking about defecting. They have noticed account closures, declining account balances, automated bill payment cancellations and direct pay check deposit cancellations. This type of real-time insight helps marketing and customer experience teams improve targeting, build out a successful retention program and identify ways to try and reverse the customer's decision.

Guiding customers in the direction of actions that enhance investments and credit standings

Customers have come to expect short load times, personalization, and updates in real time. A real-time data pipeline enables banks to capture, process, analyze, and serve massive amounts of data to



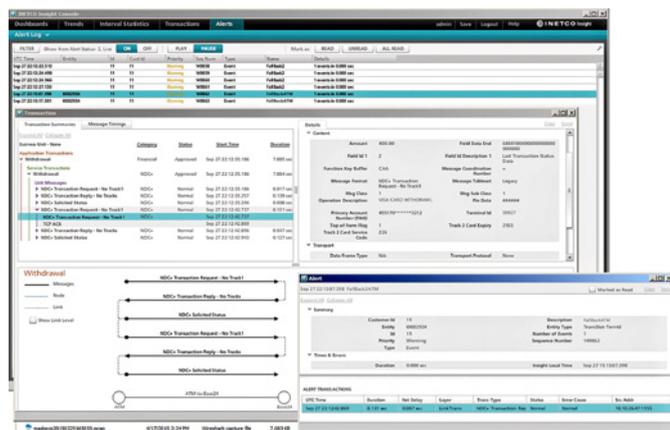
Assessing customer risk and speeding up credit card approval rates

A critical component of customer risk assessment, real-time data also improves the predictive power of risk models and system response times. The ability for banks to update customer risk profiles and risk scores in real-time, based on current behaviour, payments, investments and spending habits will help them identify,

verify and respond to customer loan requests, overdraft increases and credit card applications faster.

Faster reaction to fraud and compliance issues

Security landscapes and compliance requirements are constantly evolving, as are the methods used to defraud banks and customers. Access to real-time data helps cyber security and fraud teams continuously screen and analyze aggregate patterns of transactions, combined with other important data sources such as geo-location data, merchant data, social media and authorization data. Security breaches and the operational costs associated with fraud investigations are reduced by keeping track of any traffic, credit card or behavioural anomalies that indicate a potential fraud hit or card compromise such as an advanced persistent attack, the same card being used in a number of locations in a short amount of time, or the velocity of transactions around cards used at one or multiple self-service locations. In addition to early warning systems and time series analysis, this data can also be used to set predictive alerts aimed at preventing fraud and addressing potential security or compliance issues before they cause problems.



Managing the cash flows of individual self-service devices in real-time

In the past, it has been a challenge for cash management systems to obtain core banking data such as open/close balances and withdrawals/deposits by denomination at each ATM. This information has traditionally been served up in more of a batch process, which made reaction times slower.

With today's real-time transactional data feeds, financial organizations can now get an up to date status on cash-in and cash-out

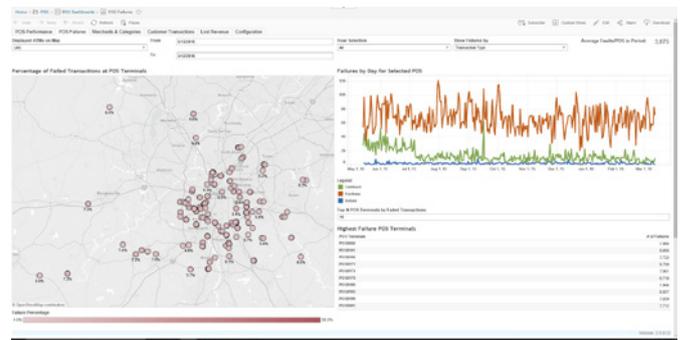


at each ATM and self-service kiosk location. The timeliness of this information helps financial organizations react faster to ATM usage, and understand important details such as preferred withdrawal denominations, interactions and service locations. This data also enables more accurate cash forecasting and timely cash flow handling at individual self-service locations. A reduction in emergency replenishment scenarios and a better understanding of when cash drops really need to be made will have a positive impact on overall channel profitability and customer experience.

Reducing the risk of operational performance

When it comes to managing the operations of core banking and self-service channel systems, real-time data plays a key role in minimizing downtime, identifying abnormal behavior within systems, and isolating the root cause of performance issues. IT and channel operations teams can manage their end-to-end transaction environments, drive a consistent user experience across all technology touchpoints and channels, and isolate transaction failures and slowdowns related to applications, networks, host authorization and third party services on average 75% faster.

Real-time data also helps IT and channel operations teams become more proactive. For example, if properly monitored and visualized, real-time transaction data has been proven to help IT and channel operations teams proactively identify when the transactional response time of a system is degrading – before they fail completely. Monitoring transactions by type and completion status also helps identify patterns in specific response code errors or when EMV fallbacks are occurring. Teams can act quickly, before the end customer has experienced a problem, liability has shifted or service level agreements are impacted.



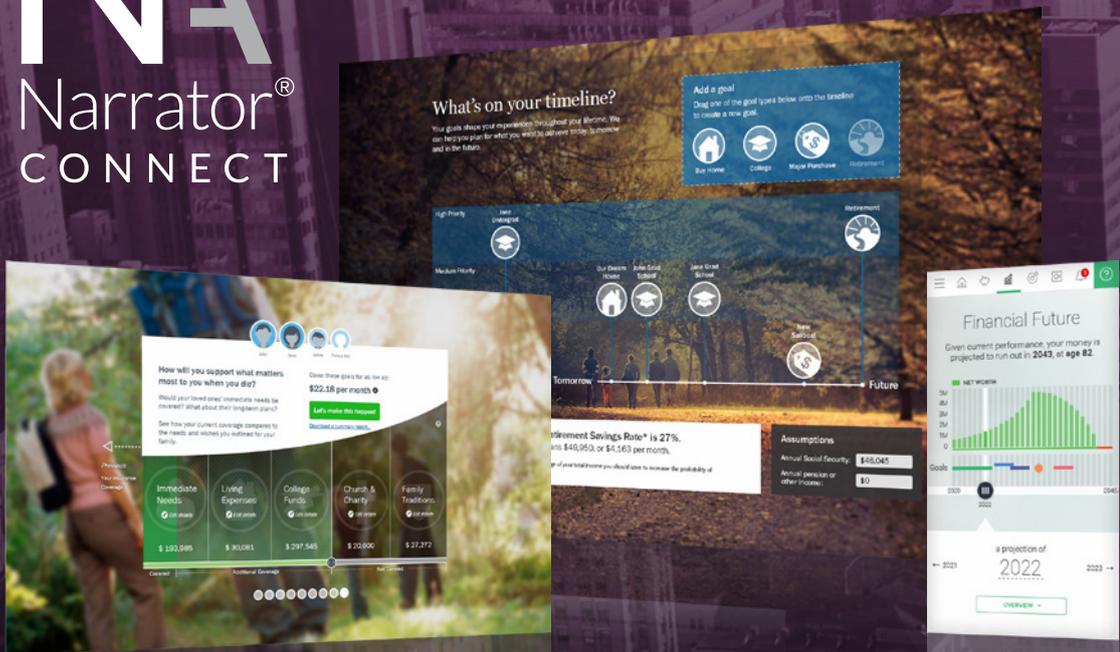
Are you ready to run at the speed of data?

In summary, harnessing real-time data greatly increases a bank's ability to deliver amazing customer experiences, make timely decisions, and expand customer wallet share. But advancing to real-time cannot be done without investment in people, business processes and analytics technology. The good news is that all the skills, use cases and technology components you need are out there, and ripe for the picking. By building out an advanced analytics strategy that involves real-time data collection, cleansing, combining, calculating and visualization, CIO's and other IT leaders will get their financial organizations moving in a direction that can boost financial performance, improve customer experiences, and manage risks.

Connect planning and technology.

NA

Narrator®
CONNECT



Don't let off-the-shelf software dictate your engagement model. With Narrator Connect, you can deliver custom financial applications to acquire clients, deepen relationships, and improve efficiency.



Financial planning

Access industry leading financial planning capabilities via a complete set of APIs from Advicent



Custom solutions

Create custom solutions that work within your unique environment by leveraging our planning features and defining your user experience



Comprehensive professional services

Experienced Project Managers and Business Analysts from Advicent work directly with you to design and deliver your financial planning applications



Data security

Protect your client data with the internationally recognized standard of excellence for information security, ISO 27001

Learn how we can help you achieve your business objectives.

Call today: 0207 300 7378 or visit advicentsolutions.com/uk

 **ADVICENT**



JR Lowry,
EMEA head of State Street Global ExchangeSM

THE NEXT STAGE OF THE TECHNOLOGICAL EVOLUTION FOR THE FINANCIAL INDUSTRY

As 2017 unfolds, we continue to be in the midst of a high-change period in financial services, with the evolution of technology teetering on the edge of radically re-shaping the entire industry.

The period of hype surrounding the term, 'big data' has given way to a more measured reality, however, 'data' and 'digitisation' are increasingly defining our day-to-day working lives.

As more devices become digitised, more data is being captured. As this data comes to market, investors are going to need to figure out how to ingest all of it, mine it and understand where its value lies. Some of it won't be useful from an investment standpoint but some will inevitably have investable value. Separating that signal from the noise in the face of all this new data is going to be a significant challenge for most investment firms.

In view of this shift, firms are making increased technology investments, as they strive to aggregate data and use overlay tools, like machine learning, to help interpret that data. A by-product of this wave of new data is a greater range of analytical tools, including sentiment and behavioural and predictive analytics. It's impossible for humans to digest all of this new data themselves, so the balance of man and machine will continue to tilt more towards machine. The question often asked is how?

'RegTech' and 'blockchain' are just two examples of buzzwords that continue to generate hype – and for many are the answer to this question; offering a solution or the facilitation of a solution for their big data needs.

RegTech

It's no secret that regulators around the world are asking for more data, whether in the form of MiFID II, PRIIPs, Solvency II, EMIR, or

other new regulations. They are also setting a higher bar through BCBS 239 and other new rules, with respect to the quality and governance of the data that is sent to them. They are similarly raising expectations in terms of market surveillance, such as through the European Union's Market Abuse Regulation (MAR). Hence financial institutions must not only apply new data and analytic techniques to the search for alpha, but they also must do so with respect to regulatory compliance. No firm wants to be in a position where the regulators uncover malfeasance from their data when they themselves did not.

From a technology perspective, these new regulatory requirements and expectations have fuelled the interest in RegTech which will ultimately lead to an improvement of tools for risk management and compliance and hopefully a reduction in compliance costs relative to what the industry is currently incurring.

Blockchain

Along with RegTech, blockchain continues to be an area of widespread industry interest. Speak to nearly any market participant and they will acknowledge a belief that blockchain is going to have a significant impact on financial services in some shape or form.

Blockchain is one of the more compelling vehicles of technological disruption. In a nutshell, this is because it could create a single source of truth for many of the industry's transaction types, with far-reaching consequences. As such, because of its distributed-ledger model and use of asymmetric cryptography, it has the potential to create reporting and record-keeping systems that are not only more efficient than existing options, but also more transparent and secure.

More industry processes will likely move towards blockchain models in the coming years. We polled 100 institutional investors in January last year and found 57 percent expect blockchain to be widely adopted in the next five years¹. Despite these beliefs, investors are unprepared, as only seven percent currently have initiatives underway on blockchain, and 64 percent say they need more time to understand it better².

Blockchain will have a significant impact starting with inefficient areas, that are (a) manual, (b) require a lot of stakeholders to engage, align and sign-off, and (c) have intermediaries that create a single point of failure and add cost to the system. Early implementations are likely to be on a limited scale or in "green-field" areas where legacy issues and standardisation requirements are less of a factor. The areas likely to be impacted first will be areas such as bank loans, liquidity management (collateral management, securities borrowing), derivatives, and broader settlement areas.

With broader adoption in the longer term, blockchain could ultimately become a standard for financial transactions and real-time settlement, increasing transparency and efficiency in a highly fragmented industry. This represents a fantastic prospect for the industry and one that represents exciting, new opportunities.

What next?

In certain aspects, the wider financial industry is still very analogue – as one example, we still receive roughly 50,000 faxes a week at State Street. However, even at this pivotal point of technological evolution, the industry has proven itself to be resilient and, as always, it will find a way to adapt.

^{1,2} State Street Blockchain survey conducted by Oxford Economics in January 2016.

THE WORLD'S MOST EFFICIENT BANKING AND INSURANCE OPERATIONS RUN ON THE INTELLECT PRODUCT SUITE



Intellect designs and deploys high performance financial technology that attacks the complexity in banking and connects the dots between business, technology and operations, unleashing unprecedented value.

The Intellect brand embodies rich global IP across the wide gamut of enterprise banking processes and encompasses best practices in Global Transaction Banking, Global Consumer Banking, Central Banking, Risk, Treasury & Markets, and Insurance. The Intellect suite of specialist products addresses the needs of financial institutions and insurance companies in varying stages of technology adoption.

Progressive banks and insurance companies need specialist financial technology to leapfrog the legacy challenges other economies are struggling to deal with at considerable effort and expense. **Better banking is a conscious decision.**

Intellect products are highly rated by customers and industry analysts. Repeatedly commended as best-in-class, rich in functionality, and unique in omnichannel capability, these solutions set the bar against which you should consider your other limited options.

Realise your enterprise ambitions at 8012 FT Design Center. Work with leading product and solution specialists who have led the most complex and ambitious change initiatives at banks around the world, in an environment engineered for design thinking.

Sydney • Tokyo • Hong Kong • Singapore • Mumbai • Dubai • London • New York • Toronto

FULL SPECTRUM BANKING AND INSURANCE FOR THE DIGITAL AGE. Intellect Design Arena Ltd. is a pioneer and leader in the rapidly-evolving, specialist Fintech domain of digital technologies for banking and insurance companies. A uniquely focused product business, the \$124 million Intellect Design Arena has the soul of agile startup, with the maturity of an established specialist in designing advanced technology products for global financial platforms. Intellect provides full spectrum, fully integrated products that run in over 200 financial institutions, across 40+ countries.

MANDATES

Salem Five Selects DNA Core Platform From Fiserv

Date: 09.02.2017

#Banking

Provider: Fiserv

Client: Salem Five

Mandate value: Undisclosed

Salem Five, a \$4.2 billion Massachusetts-based bank, has selected Fiserv as a new technology partner. The selection was made with a particular emphasis on advancing the banks' digital focus and enhancing business banking capabilities. The commercial and cash management solutions are part of the expanded set of commercial banking capabilities offered by Fiserv following the recent acquisition of Online Banking Solutions. The bank selected DNA to ensure retail and business customers have the most innovative tools to collaboratively manage their finances.

Agribank Upgrades EMV Network Using Compass Plus Solutions

Date: 08.02.2017

#Banking

Provider: Compass Plus

Client: Agribank

Mandate value: Undisclosed

Vietnam Bank for Agriculture and Rural Development (Agribank) has updated its entire EMV network, including ATMs and POS terminals, which function using solutions from Compass Plus.

The update improves the level of security and fraud protection for Agribank's card services, as well as bringing its customers into line with the global trend for EMV chip cards and contactless payments. As Vietnam's second largest card issuer with 18.8 per cent of the market share, Agribank intends to use its new capabilities to provide its customers with a more up-to-date, reliable card service.

Caruana Financeira Deploys Kofax Totalagility

Date: 08.02.2017

#Transaction Banking

Provider: Kofax

Client: Caruana Financeira

Mandate value: Undisclosed

Kofax and TR Process, a Kofax authorised partner in Latin America, announced that Kofax TotalAgility® has been deployed at Caruana Financeira, an innovative financial services company in Brazil, to automate a "hybrid" debit /credit card application, approval and delivery process.

The "hybrid" card can be used as a prepaid debit card for mass transit, utility and other payment purposes and as credit card for purchases of goods and services. Individuals can apply for the card at Caruana Financeira branches located in mass transit terminals in Brazil.

Metro Bank Accelerates Project Delivery Using Delphix

Date: 08.02.2017

#Data

Provider: Delphix

Client: Metro Bank

Mandate value: Undisclosed

Delphix has announced that the UK's leading challenger bank, Metro Bank, has dramatically accelerated project delivery, cutting data provisioning time by 80 per cent, following the deployment of the Delphix Data Virtualization platform. In an industry where time to market pressures matter, the Delphix solution delivered a record breaking speed of ROI within six weeks of deployment.

In order to support its ambitious growth plans, the bank began working with Delphix, helping it to boost its change delivery programme and enabling it to deliver data to teams seamlessly and efficiently.

Al-Arabiya Islamic Bank Goes Live With ICS Banks Islamic System From ICS Financial Systems

Date: 08.02.2017

#Islamic Banking

Provider: ICSFS

Client: Al-Arabiya Islamic Bank

Mandate value: Undisclosed

CS Financial Systems Limited (ICSFS), the global software and services provider for banks and financial institutions, announced that Al-Arabiya Islamic Bank, a newly established Bank located in Iraq, selected the multi-awards winning system ICS BANKS ISLAMIC System.

The signing ceremony took place in Amman. Al-Arabiya Islamic Bank (AIB) will enjoy many offerings and advantages, by implementing ICS BANKS ISLAMIC Core Banking and Credit Facilities & Risk Groups, Trade Finance, Remittances, Investment Accounts & Profit Distribution, Time Deposit, and from ICS BANKS DS (Delivery Channels); ICS BANKS IBS (Internet Banking System) and Credit Cards and ATMS Management System.

Leading European Bank Selects CTC For Greater Financial And Risk Control

Date: 07.02.2017

#Trading

Provider: Gresham

Client: European Bank

Mandate value: Undisclosed

Gresham, the leading software and services company that specialises in providing real-time transaction control and enterprise data integrity solutions, is pleased to announce a strategic win in the European banking sector.

One of the largest financial service providers in Central and Eastern Europe has selected Clareti Transaction Control (CTC) to provide greater control and integrity within their treasury function and capital markets business, covering foreign exchange (FX), over-the-counter (OTC) trading, exchange traded derivatives (ETD) and inter-company transactions.

DEALS

[Thomson Reuters To Acquire Clariant Global LLC And Avox Limited](#)

Date: 06.02.2017

Thomson Reuters has signed definitive agreements to acquire Clariant Global LLC and Avox Limited. Clariant is a leading global Know Your Customer and client reference data platform owned and used by the Depository Trust & Clearing Corporation, Barclays, Credit Suisse, Goldman Sachs, J.P. Morgan, BNY Mellon, and State Street, among others. The Clariant and Avox acquisitions represent another step forward by Thomson Reuters, who brought the first KYC managed service to market three years ago (Org ID) and today serves 23 leading financial institutions worldwide with over 200,000 KYC records published to date, consistently on-boarding or refreshing over 2,000 clients per month and helping customers accelerate client on-boarding, comply with regulation, reduce costs and improve client experience.

[Ingenico Group Acquires TechProcess](#)

Date: 31.01.2017

Created in 2000, TechProcess is a leading online and mobile payment services provider headquartered in Mumbai with approximately 600 employees across 40 locations in India. The company has developed best-in-class offerings in several markets where it built leading positions, especially in online payments gateway, NACH (National Automated Clearing House), bill payments, and mobile payments.

The acquisition of TechProcess will support the strategy of Ingenico Group in India, where it is the leader on the terminal market with c.50% market shares and a player in online payments through EBS, an Ingenico ePayments entity.

[Sopra Steria Raises Its Stake In Cassiopae](#)

Date: 27.01.2017

Sopra Steria (Paris:SOP) (Euronext Paris: SOP), a European leader in digital transformation, announced today that it had raised its stake in Cassiopae's holding company KSEOP to 100% through its subsidiary Sopra Banking Software.

Sopra Banking Software had previously acquired 75% of KSEOP (see 24 February 2016 press release), and had planned to acquire the remaining shares by 2020. More generally, this transaction enables Sopra Steria to pursue its growth targets in the banking and software development sector, two of the Group's top growth priorities for the upcoming financial years.

[BT Announces Acquisition With IP Trade SA](#)

Date: 01.02.2017

BT has signed an agreement to acquire IP Trade SA, a provider of unified communications and collaboration solutions for trading floor environments and command-and-control dispatch centres. Completion of the deal is subject to certain conditions, including regulatory clearance, and is expected to complete in the first quarter of 2017.

The acquisition is underpinned by BT's Cloud of Clouds portfolio strategy and underlines its continued investment in voice trading and turret solutions. Customers will benefit from optimised cost of ownership, flexible cloud-based deployment options and operational agility.

[FactSet Agrees to Acquire Interactive Data Managed Solutions](#)

Date: 27.01.2017

FactSet has agreed to acquire Interactive Data Managed Solutions (IDMS) from Intercontinental Exchange (NYSE:ICE) for cash consideration. With more than 300 employees across 14 offices in Europe and the United States, IDMS is a leading managed solutions and portal provider for the global wealth management industry.

IDMS supports the wealth management marketplace across a variety of workflows and functions, from advisors to their clients. IDMS offers real-time market data desktops, customizable web-based portals, and a broad range of mobile solutions. The transaction is expected to close during FactSet's third quarter of fiscal 2017.

[Linedata Acquires Gravitas](#)

Date: 27.01.2017

Linedata (LIN:FP), the global solutions provider to the investment management and credit industries, today signed an agreement to acquire Gravitas Technology Services (Gravitas), a leading provider of middle office and technology services to the asset management industry. Gravitas is based mainly in New York (USA) and Mumbai (India). By combining its software platforms with Gravitas' outsourced services, Linedata will offer high-value services tailored to its customers' requirements and business models.

Gravitas founder and CEO Jayesh Punater added, "Linedata's technologies and global reach will bring us genuine and unique abilities to extend and improve our range of services."

PEOPLE MOVES

[Nasdaq Welcomes Nikolaj Kosakewitsch As President Of Nasdaq Copenhagen](#)

Date: 09.02.2017

Nasdaq Inc. announced that Nikolaj Kosakewitsch has been appointed President of Nasdaq Copenhagen A/S. Nikolaj joins Nasdaq from Carnegie Investment Bank, where he most recently served as Head of Securities, Denmark.

In addition to his new role as President of Nasdaq Copenhagen, Kosakewitsch will have the functional position as Head of Sales for Nasdaq European Equities, reporting to Lauri Rosendahl, Nasdaq's Head of European Equities and President of Nasdaq Nordic.

Kosakewitsch has more than 20 years of experience in the financial markets. Prior to joining Carnegie Investment Bank in 2012, he served in Nordic Sales at SEB and as Sales Trader at Alfred Berg ABN Amro.

[Carl Stern Joins BitPay](#)

Date: 01.02.2017

Payments innovator BitPay is pleased to announce that Carl Stern has been elected to BitPay's board of directors.

Carl has been shaping strategic business thinking for more than 40 years. He has spent most of his career with The Boston Consulting Group, serving 6 years as CEO and 8 years as Chairman. Currently Chairman of Carl W. Stern Associates LLC, Carl assists several global companies in developing competitive strategies for their businesses and shaping their corporate portfolios.

Carl served in the U.S. Navy as a lieutenant. He has an M.B.A. from the Stanford University Graduate School of Business and a B.A. in Economics cum laude from Harvard University.

[Xignite Opens New York Office And Gets Two Senior Financial Services Executives On Board](#)

Date: 24.01.2017

Xignite has expanded its leadership team adding two senior financial services executives, Ryan Burdick, Senior Vice President and Global Head of Sales and Marla Sofer, Senior Director, Strategic Business Development. The company also announced that it has opened an office in the New York financial district to serve Xignite's East Coast activities and hired market data industry veteran Dina Xu as its first New York-based sales director.

Burdick brings over fifteen years of expertise in financial information technology and has led several companies through rapid growth and profitability. Marla Sofer has been appointed Senior Director, Strategic Business Development.

[CloudMargin Announces New CTO](#)

Date: 07.02.2017

CloudMargin, the multi-award winning creator of the world's first web-based collateral and margin management solution, today announced it is continuing its rapid expansion in London with the appointment of Filipe Rodriguez as the firm's new Chief Technology Officer.

Industry veteran Rodriguez will be based in the firm's London headquarters, where he will lead the global technology advances for the FinTech firm, reporting directly to Steve Husk, CEO of CloudMargin.

Rodriguez joins CloudMargin with more than 15 years of experience in development and technology innovation across various business sectors. Rodriguez led the tech team at WeSwap.

[American Express Company Appoints John Brennan To Board Of Directors](#)

Date: 26.01.2017

American Express Company (NYSE:AXP) have announced that John J. "Jack" Brennan has been elected to its board of directors.

Mr. Brennan is chairman emeritus and senior advisor of Vanguard, one of the world's largest and most respected investment companies. He joined Vanguard in 1982, was elected chief financial officer in 1985 and president in 1989. He served as Vanguard's chief executive officer from 1996 to 2008 and chairman of the board from 1998 to 2009. American Express is a global services company, providing customers with access to products, insights and experiences that enrich lives and build business success.

[Currencycloud Appoints New CTO](#)

Date: 23.01.2017

Currencycloud, the international Payments Engine behind countless digital businesses, has appointed Ed Addario as Chief Technical Officer (CTO).

Ed brings over 25 years' professional experience leading both start-ups and large teams in the design, development and delivery of software products across the financial services, telecoms and retail sectors. He joins Currencycloud from Misys, where he was Global Head for Architecture and Integration. Prior to this, he has held a number of senior technology positions in both the US and UK, including SVP Technology with Monitise.

Financial  IT

Financial Technology Buyers' Guide

February Issue 2017



Allevo provides software solutions that help financial institutions of all sizes reduce TCO and achieve end-to-end interoperability across the financial supply chain – by using FinTP, a complete open source application that processes transactions, automates flows and offers compliance to regulatory and industry standards. The Allevo guaranteed distribution of FinTP is aimed to grow competitiveness and offer operational risk containment, making such systems affordable to SMEs as well. FinTP and all ancillary documentation is distributed freely and openly through the FINKers United community and it provides collaboration ground for rapid development and integration of new technologies, such as crypto currencies, biometric security, data analysis algorithms.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Alina Enache
Annual turnover	1,44 mil. Euro (2015)	Job Title	Sales Manager
Number of Customers Total	Undisclosed	Contact address	031281 Bucharest 3, 23C, Calea Vitan, Floor 3
Number of Employees	48+	Telephone number	(+40) 21 255 45 77
Inception	1998	Email Address	sales@allevo.ro
Geographical coverage	Global	Homepage address	www.allevo.ro



Bpm'online is a global provider of award-winning CRM software that streamlines customer-facing processes and improves operational efficiency. Bpm'online financial services is a powerful CRM designed for corporate and retail banks and financial institutions to manage a complete customer journey and enhance customer experience. The users of bpm'online financial services highly value its process-driven CRM functionality, out-of-the box best practice processes and agility to change processes on the fly. Bpm'online financial services offers products that are seamlessly integrated on one platform connecting the dots between banks' business areas: retail banking and front-office, corporate banking, marketing.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Nadia Bezhnar
Annual turnover	Undisclosed	Job Title	Product Marketing Manager
Number of Customers Total	6500 total, 90 in financial services industry	Contact address	280 Summer street, 6th floor Boston, Massachusetts 02210 United States
Number of Employees	Over 500	Telephone number	+1 617 765 7997
Inception	2011	Email Address	Nadia.Bezhnar@bpmonline.com
Geographical coverage	Global	Homepage address	www.bpmonline.com



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

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

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



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

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



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

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



Computop is a leading global Payment Service Provider (PSP) that provides compliant and secure solutions in the fields of e-commerce, POS, m-commerce and Mail Order and Telephone Order (MOTO). The company, founded in 1997, is headquartered in Bamberg, Germany, with additional independent offices in China, Hong Kong, the UK and the US. Computop processes transactions totalling \$24 billion per year for its client network of over 14,000 large international merchants and global marketplace partners in industries such as retail, travel and gaming.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	André Malinowski
Annual turnover	Undisclosed	Job Title	Head of International Business
Number of Customers Total	Over 14,000	Contact address	Schwarzenbergstr. 4, D-96050 Bamberg, Germany
Number of Employees	100	Telephone number	+49 951 98009-0
Inception	1997	Email Address	andre.malinowski@computop.com
Geographical coverage	Global	Homepage address	www.computop.com



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

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



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 real-time, actionable insights.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Sole proprietorship	Contact	Naresh Kurup
Annual turnover	Undisclosed	Job Title	Director - Marketing
Number of Customers Total	15+	Contact address	#113/1B, 1st Floor, SRIT House, ITPL Main Road, Brookefield, Bangalore - 560 037, India
Number of Employees	70	Telephone number	91-80-41672977
Inception	2006	Email	naresh.kurup@customerxps.com
Geographical coverage	South Asia, South East Asia, GCC, MENA, North America	Homepage address	www.customerxps.com



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

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



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

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



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.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately held	Contact	Kevin Beardsley
Annual turnover	Undisclosed	Job Title	Business Development Manger
Number of Customers Total	Undisclosed	Contact address	Upper Ground, London, SE1 9PD, UK
Number of Employees	Undisclosed	Telephone number	+44 20 7193 4752
Inception	March 2013	Email Address	kevin@elliptic.co
Geographical coverage	UK, Europe, US	Homepage address	www.elliptic.co



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

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



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

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

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



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



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

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



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 CONTACT DETAILS	
Company type	Public Limited	Contact	Phil Cantor
Annual turnover	\$124M	Job Title	Head of Digital Transaction Banking & CMO
Number of Customers Total	Over 200	Contact address	Level 35, 25 Canada Square, London, E14 5LQ, UK
Number of Employees	Over 4000	Telephone number	+44 20 7516 1359
Inception	2004	Email Address	philcantor@intellectdesign.com
Geographical coverage	Global	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.

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



Kuwait-based Path Solutions is a leading information technology solutions provider offering a broad, deep spectrum of Sharia-compliant, Riba-free and asset-backed integrated software solutions and services to the Islamic financial marketplace, covering the entire range of Islamic Banking, Retail and Corporate Banking, Investment and Financing, Treasury, Asset Management, Risk Management, and Regulatory Reporting in GCC and Global Capital Markets. Designed to meet the needs of modern Islamic banking, Path Solutions' turnkey solutions are based on an open, flexible architecture and an established deployment methodology. They have been tested and implemented at some of the world's most sophisticated Islamic banks, Islamic banking windows as well as conventional banks converting into Islamic banking operations.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately-owned company	Contact	Mr. Reda Khoueiry
Annual turnover	Undisclosed	Job Title	Senior Marketing Officer
Number of Customers Total	117	Contact address	P.O.Box 15-5195 Beirut, Mkalles Highway, Mkalles 2001 Bldg., 3rd Floor, Lebanon
Number of Employees	500	Telephone number	Tel: +961 1 697444
Inception	1992	Email	RKhoueiry@path-solutions.com
Geographical coverage	Middle East, GCC, Africa, Asia Pacific, South America & United Kingdom	Homepage address	www.path-solutions.com



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



Pelican is a growth fintech that has been driving innovation in payments and compliance for over 20 years. We deliver outstanding efficiencies to banks and corporates by injecting pioneering Artificial Intelligence technology into compliance and the end-to-end payments life cycle, drastically reducing the need for costly human intervention and manual processes. A consistent focus on innovation and industry-leading reliability has resulted in the growth of lasting relationships with major clients that use Pelican in over 55 countries globally. Pelican has offices in New York, London, Dubai and Mumbai. (88 words)

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately held	Contact	Bill North
Annual turnover	Undisclosed	Job Title	Global Sales
Number of Customers Total	20+	Contact address	485-B Route One South, Suite 310, Iselin NJ 08830, USA
Number of Employees	150	Telephone number	+1 732 603 4990
Inception	1992	Email	bnorth@pelican.ai
Geographical coverage	Global	Homepage address	www.pelican.ai



Profile Software, an ISO-certified and listed company, is a specialised financial solutions provider, with offices in Geneva, Dubai, London, Singapore, Athens and Nicosia. It delivers market-proven solutions, with an exceptional track record of successful implementations, to the Banking and Investment Management industries. The company is acknowledged as an established and trusted partner across many regions, offering a wide spectrum of solutions to the financial services sector.

Profile Software's solutions have been recognised and approved by leading advisory firms and enable Institutions worldwide to align their business and IT strategies while providing the necessary business agility to proactively respond to the ever-changing market conditions.

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



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.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Günther Peer
Annual turnover	Undisclosed	Job Title	Sales & Client Relations TS
Number of Customers Total	575+	Contact address	Arche Noah 11, 8020 Graz, Austria
Number of Employees	500+	Telephone number	+43 316 908030 593
Inception	1999	Email	guenther.peer@reval.com
Geographical coverage	North America, EMEA and Asia Pacific	Homepage address	http://www.reval.com/



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

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



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



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

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



Tagetik provides intuitive, enterprise-scale performance management software solutions that drive business results, improve efficiency and reduce risk. Tagetik offers the simplicity of the Cloud and the power to unify financial and operational planning; shorten the consolidation and close process; immediately analyse results, model and compare full financial statement impact of business scenarios; adjust strategic plans; update rolling forecasts; produce formatted and auditable financial statements and management reports and automate disclosure and board reporting. Tagetik's built-in financial intelligence allows finance and operations executives to orchestrate multiple processes in one software solution.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	Privately Held	Contact	Dave Kasabian
Annual turnover	Undisclosed	Job Title	Chief Marketing Officer
Number of Customers Total	850+	Contact address	9 West Broad St., 4th Floor Stamford, CT 06902
Number of Employees	425+	Telephone number	+1 (203) 391-7520
Inception	1986	Email Address	DaveKasabian@tagetik.com
Geographical coverage	Global	Homepage address	www.tagetik.com



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



ZoneFox is a market leader in User Behavior Analytics, providing critical insights around data-flow to secure organisations against the Insider Threat. Driven by Machine Learning, ZoneFox is the most advanced UBA platform on the market, with a global customer base including Zenith Bank, Rockstar Games & Nucleus Financial. ZoneFox unobtrusively monitors, records, and analyses user behaviour around business-critical information. Taking only the data it needs, ZoneFox identifies user patterns and immediately alerts on any risky behaviour, accidental or malicious, turning your big data problems into valuable, actionable insights.

COMPANY PROFILE		COMPANY CONTACT DETAILS	
Company type	PLC	Contact	Lynsey Jenkins
Annual turnover	Undisclosed	Job Title	Head of Marketing
Number of Customers Total	Undisclosed	Contact address	3 Lady Lawson St, Edinburgh EH3 9DR
Number of Employees	20	Telephone number	0131 208 1461
Inception	2010	Email Address	info@zonefox.com
Geographical coverage	Worldwide	Homepage address	https://zonefox.com



Propelling
Paperless Trade

www.essdocs.com

INDATA®

iPM – Intelligent Portfolio Management®

p 888.454.4060 | e info@indataipm.com

TRUSTED TECHNOLOGY PARTNER For Investment Management Firms



- Best-of-Class **Software**
- Big Data/EDM
- IBOR
- OMS/Front Office
- Pre/Post/Real-time Compliance
- Portfolio Accounting & Billing
- Performance, Attribution, Reporting & CRM



- Private **Cloud**
- Disaster Recovery
- Full Redundancy



- Full **Outsourcing** or À La Carte Services
- System Administration
- Reconciliation
- Performance
- Trade Settlement

Used by Firms With <\$1 Billion To Over \$100 Billion In AUM