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**Experts** in delivering business-driven **technology solutions**

# 2013 Bank Transformation GUIDE

A guide to top IT trends and best practices for today's financial services innovators

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### Bringing **People, Process and Technology** Together for Today's Financial Services Innovators

The world's largest financial services organizations and Global 2000 turn to Perficient to meet their diverse and complex needs because of our solid relationships with the world's leading technology innovators. We are an award-winning IBM, Oracle, Microsoft, EMC, and TIBCO partner focused on delivering compelling industry-focused solutions for our clients.

## A Note from Our Team

Dear Financial Services Leader,

Perficient shares a steady stream of insights covering top of mind issues for bank executives and IT professionals looking to bring people, process, and technology together for their organization. We've compiled some of our best thought leadership material and knowledge into this "Bank Transformation Guide" covering mobile banking, business intelligence and analytics, enterprise information management and payment strategies for your organization. Armed with this information, your organization can be more strategic with business and technology decisions to position itself at the forefront of innovation.

When you choose Perficient, you benefit from deep industry expertise to overcome unique business challenges and benefit from industry-leading solutions to enhance your business strategies and products, enhance your customer service effectiveness and gain new insights for a competitive advantage. It's no wonder that six of the Top 10 U.S. banks and four leading card and payment innovators have chosen Perficient.

We hope you find this content valuable and look forward to the opportunity to work with, or continue to support, your organization.

Sincerely,

Mike

Mike Panzarella,
Director of Financial Services

Mobile Banking & Payment Integration

# What Tablet Growth Means for Your 2013 Banking Services Strategy

By: Abbey Smalley

Believe it or not, an astounding 19 percent of Americans over the age of 18 now own a tablet of some sort. This is double the number Forrester noted in 2011.

It's true that tech penetration is lower among adults over 47, but not by much. This demographic is now at 14 percent ownership, which is also double the figure recorded in 2011.

Tablet penetration in the market is still in its infancy, only being around for the past few years. However, we're already seeing multiple variations that are able to play with different price points, and also address some early issues owners were having, (ease of use, portability, and muscle fatigue). What does this mean for your financial institution in 2013?

Simply put, it means you should be just as concerned about having a tablet strategy as you are with having a mobile strategy.

Unfortunately for us, they are not always the same thing and should be considered individually. Going into 2013, the trend is showing that tablet growth may surpass smartphones. In my opinion this does not signify an end of the smartphone reign, but just another gadget in the tool belt that consumers will be using for managing their personal finances.

## Here are some things to consider on where to start:

1. **Your marketing/technical teams should invest in tablets.** Not just a tablet, but look at the trends and purchase the top 5 tablets in the market. Research a current list of the top tablets in the marketplace and test your tablet app on each of these devices.

2. **Have your team review how well your current website works on them.** Have your team get to know them all very well. Assess how well your website scales to these new platforms. Consider your consumers top 10 reasons to come to your website and test out each task flow. What tasks become harder? What content no longer makes sense on this smaller platform?

3. **Consider the "Tappiness" of your website.** Yes, I know you might be thinking that this is not a real word… but it is in fact a real thing. Here's a definition of what I mean by this: *"When a website exhibits "Tappiness," it's easy—or even delightful—to use on a mobile or tablet device. Tappiness encompasses smart use of space, text that is easy to read, logical interaction clues, and large touch targets that allow visitors to navigate with confidence."*


After these three steps are taken to review your current site, consider how your tablet strategy may evolve. Perhaps rethinking your strategy to accommodate both platforms is right for you, or even developing a unique tablet offering provides the best tablet customer experience.

## Taking Your Tablet Strategy to the Next Level

Create an engaging tablet-specific experience. Simply porting over your smartphone app isn't enough for the banking experience when it comes to tablet users. Customers can use tablets to take a deeper dive into their personal finances. The larger screens with tablets allow for more interaction and graphical information by integrating personal finance management (PFM) tools. Tablet banking provides financial institutions with a great opportunity to deepen their relationships with customers. Citibank took this approach by identifying experiences and functionality not available on Citi.com and found this to be a successful strategy.

But designing apps for different devices doesn't mean you have to start from scratch either. Responsive web design continues to pick up steam if you're looking for a user experience to accommodate desktop, tablet and mobile experiences.

There isn't one "best solution" that fits all situations. Consider bringing on a consultant to help assess what solutions might be best for you and your products.

Educate customers by marketing your tablet app. The Financial Brand has published a number of mobile banking articles for financial marketers on how to address this critical channel. In several studies, results showed that only a small fraction of users were first prompted to use their bank's mobile channel. Financial institutions need to more adequately promote their online, mobile and tablet offerings, and get more engaged with users by providing tutorials and interactive videos, reinforcing security measures, and addressing customer support better to drive mobile and tablet adoption.

Mobile Banking & Payment Integration

## The Truth About Mobile Offers and Rewards

By: Mike Panzarella

2013 has been touted by many Payment Pundits (including us right here on the Perficient FS blog) as "The Year of Mobile". While many articles and posts have been written about what mobile banking should be, I wanted to take a moment to caution what it might become.

We all know the feeling of checking our mailboxes only to find 3 pounds of useless junk mail mixed in with the one or two items we really care about. Not only is it annoying, but as consumers, many of us just see bulk mail as clutter that goes right into the trash without a second thought. Flash forward to mobile banking and the evolving capability of offering Offers and Rewards. This usually involves either browsing a list of offers that can be chosen and linked to a payment card or app, or when integrated with a smart phone, real-time offers based on current location. Whether you're "pulling" offers or getting them pushed to you, the torrent is just beginning.

As we move into 2013, the velocity of offers are increasing as more and more retailers and banks fight to stay "top of mind, top of wallet". I recently chose to set-up my Apple Passbook. With just a few simple clicks I had added 5 loyalty "cards" to my wallet as well as linked to several payment cards. What happened next was the equivalent of opening the mailbox I mentioned earlier. I immediately noticed at least 4 of my payment and loyalty card products were sending me everything from a free song offer (Starbucks) to discount coupons for candy (Walgreens). Add to that location-based offers from Amex (Best Buy is just around the corner, spend 200 dollars and receive a 20 dollar statement credit), to offers for a free hamburger at In-N-Out (sorry East Coast readers) from Bank of America. My "smart phone" had become a very expensive mailbox, and as a consumer, it's just more noise to sift through.

While this example is humorous and somewhat a meme for modern marketing, the lesson is clear. Mobile banking offers and rewards will and are becoming "noise to consumers". I think the important lesson here is twofold:

1. Balancing "push vs pull" to consumers is key. The mobile providers that alert the user there are offers available and then let the customer choose what they want, when they want have provided a much less intrusive model for engaging in marketing and driving loyalty and rewards.
2. Those providers that prefer to "push" real time offers based on location or check-ins on social media apps such as Foursquare, have to realize context is key. In order to make offers meaningful in this channel, it is critically important to use social listening and data segmentation to target offers that are meaningful. (i.e. if a consumer checks in at Weight Watchers, it's probably not a good idea to offer 2 dollars off a dozen muffins at the bakery next door).

In closing, mobile offers and rewards are a fantastic and essential tool to drive customer loyalty. While this is a critical part of any mobile strategy, I implore all of us in the business to think about how we offer deals to customers. I know I don't want to have 2 "mailboxes" of junk to throw away, and I know many of my readers don't either.

Mobile Banking & Payment Integration

# Holding on to Banking Customers in the Mobile Wallet Age

By: Melody Smith Jones

According to a Carlisle & Gallagher Consulting Group survey, customers that are interested in mobile banking technology would consider an alternative to their primary bank for both mobile wallet and core banking services. The two largest consumer groups demonstrating this interest are young consumers and affluent consumers, both important demographics for the banking industry. 76% of these consumers are either currently using or intend to use mobile banking and mobile payment services. These consumers can be segmented into two main market groups:

- **Techno Shoppers (27%)**: Consumers attracted to shopping and social features of mobile wallets and currently use their cards to make the best possible payment decisions
- **Payment Optimizers (21%)**: Consumers interested in making the best payment decisions based on their financial situation, loyalty benefits and account management

## The Competitive Threat from New Entrants is Real

Banking customers have already reduced their use of cash and checks in favor of debit and credit cards. It is estimated that within the next five years, 50% of today's smart phone owners will be using their phones as mobile wallets as a preferred method of payment. These smart phones are more equipped to utilize user preferences, location, and rapid adoption of technology to organize real-time incentives, loyalty programs, and search and shop features that these customer groups find the most useful. They also provide customers with a systematic way to track and manage the terms and conditions of the offers they receive from each of their payment options. Here are the top considerations that are lowering the walls for new entrants:

- Customers are frustrated by the inability to manage offers and incentives and keeping track of payment due dates
- 65% of respondents rated the ability to make better payment choices, such as maximizing loyalty programs or minimizing interest payments, as the most valued mobile wallet service
- 82% of Techno Shoppers responded that making shopping easier was very valuable
- 62% believe that mobile wallets will make shopping more fun

Ultimately, 8 in 10 consumers would use PayPal as their mobile wallet provider, and six in ten would use Google or Apple. 5 in 10 would actually use PayPal over their primary bank, 3 in 10 would use Google and 2 in 10 would use Apple. 8 in 10 would consider using PayPal if it offered banking services, 6 in 10 would use Google or Apple.

Download our **Mobile Payments white paper** for more information: Perficient.com/Whitepapers

## How Should Banks Compete?

In order to compete under this era of disruptive innovation, banks need to ease the pain points with their mobile wallet features to retain customers. As we search the mobile payment market to see how the industry will evolve, one thing remains clear: Those players that can attract and maintain a critical mass of customers will dominate in the end. It seems to me, then, that if traditional banks, with their massive roster of clientele, can get their act together then they can dominate in the mobile banking industry. Now is the time to optimize bank branded mobile payment offerings. This ultimately calls for not only an update of core transaction processing capabilities, but banks need to offer better tools to help their customers optimize transaction choices. Banks can fast track this innovation through partnership or acquisition with smaller mobile banking and payment vendors that are able to innovate rapidly in today's market.

With customers ready and willing to move not only mobile payments but also core banking services to rivals, the time for banks to innovate in this space is now or never.

Mobile Banking & Payment Integration

# Scalable Framework Architecture for Digital Payments

By: Jeff Fisher

The financial services industry is a highly competitive, intensely regulated industry with great reliance on technology-based processes and automation to drive quality services to end-customers. To successfully compete in an environment that faces continuous margin compression, financial services must be efficient and the underlying technology they use must be delivered with quality assurance. Digital payments should be a key component of any financial institution's digital strategy, and Chief Information Officers (CIOs) need to innovate and drive solutions that can deliver value to the business (in other words, bringing higher margins to the P&L). CIOs must be Technology Product Managers who possess an expansive knowledge of the payments landscape coupled with having the skills to communicate business drivers and identify technology solutions. Importantly, a scalable architecture is required to support an effective digital payments strategy.

Before mobile banking applications came into being, commercial and consumer payment channels were never spoken in the same breath, and they were treated as being separate and distinct from one another. With the evolution of online banking, they are still distinct product offerings suited to different customer channels though the underlying technology can support both channels. The challenge comes with cost effectively integrating consumer and commercial payment functions into your online banking services platform.

From a personal and business perspective, the biggest challenge for many banks that I continue to observe is the inability to access all services available to me via my bank's on-line banking site. My view is that the online banking portal needs to be simply that, an online portal to all banking services that typically available at a brick and mortar location. From a functional perspective, the increase in payment transaction volume by function will continue to pressure and potentially erode operating margins unless your customer online banking platform is open, extensible and scalable. As a solution provider to the Line of Business that is accountable for the online banking services, the architecture decisions you make today will have downstream cost implications unless your corresponding reference architecture is open, extensible, and scalable.

## Types of Payments to Consider

The type of payments and corresponding activities that need to be considered when designing a scalable payment architecture framework are as follows:

- **Consumer Payments (Credit, Prepaid, Debit, & ACH)**
- **Peer-to-Peer Payments (IntraBank Accounts, Digital Currency, Interbank)**
- **Retail Payments**
- **Bill Payments**
- **Commercial/Interbank Payments**

## IT Framework Components

To ensure your financial institution has a scalable reference architecture for an effective payments application service and infrastructure, the components below should be incorporated into your information technology framework.

- **Interaction Services:** To support the view layer, leverage a commercial portal as the foundation for payments process interface with consumers, and incorporate a collaboration layer to enable processing between people, processes, and information. Interaction Services supports message entry, disputes, investigation, and user access services among others.
- **Process Tier:** Establish a framework for process models with underlying rules engines to cost effectively orchestrate and automate business process transaction requests. This component provides a common enterprise-wide definition of payments processes.
- **Access Services:** Gateway services are important to supporting integration with external partners and third-party processors. Ensure a file transfer capability is in place for real-time clearing and settlement systems. Provide an integration channel that supports switching and routing of transactions initiated from the portal to various payment services. Leverage this capability to connect with trading partners, treasury services and to common payments gateways and networks.
- **Functional Services:** The essential components include the application logic, process orchestration, account validation, In the area of compliance, fraud, and risk.
- **Enterprise Service Bus:** As a key component of the connectivity services layer, this component forms the orchestration base for providing a stateful and highly scalable payments message service.
- **Common Services:** Integral to the common services tier is the service-oriented architecture (SOA) framework to provide a scalable integration layer. SOA industry software product for implementation of an integration layer enabling payment orchestration and connectivity.
- **Information Services:** Essential to managing diverse data and content (structured and un-structured) in a unified manner. This layer consists of a Payments Data Warehouse that enables a "single view" with supports data federation, replication, aggregation and publishing. Support for content management, information storage, ETL processes are important dependencies for this service to be successful.
- **Security & Governance:** Manage and maintain consistent application scanning and policy testing to ensure systems and applications are secure. Ensure identity management capabilities are in place to manage identity flows across services.


Hopefully, this provides you our high level thinking on the essential components for a scalable payments architecture framework.

Business Intelligence & Analytics

# Social Listening Helps Banks Find Value in Data

By: Mike Panzarella

## Bank Marketing Buzzword of the Year – Big Data

One of the hottest terms in IT circles during the past 2 years has been "Big Data". While many pundits will tell you that Big Data is all about processing data that has a combination of Volume, Velocity and Variety for everything from log file management to a replacement for data warehouses, Big Data's practical uses for customer segmentation are much less nebulous.

Big Data has become a critical tool in enabling organizations to gain customer insights and in turn, create segmentation models to better create service offerings, product feature enhancements, and customer loyalty and reward opportunities. The ability to leverage Big Data offerings can enable any size financial services organization to compete in an increasingly competitive marketplace.

## Gaining Customer Insight

In today's competitive banking environment, using customer segmentation to gain social insight is fast becoming a critical part of staying relevant and attracting new customers. Using Big Data sounds like a daunting, expensive task for many Financial Institutions, but it doesn't have to take a large investment and specialized skillsets to start leveraging customer insight data in short order.

## Getting Started

Gaining customer social insight and then using those insights to create customer segmentation models can be quickly enabled through established third party providers. Companies such as SalesForce.com via Radian6 and Micro Strategy (through the "Wisdom" product offering), can provide Cloud based or turn-key "out of the box" solutions that let an enterprise wade into the social listening space without large investments in people and technology.

## Measure Brand Impact

Using these tools to start monitoring brand impressions on social media (quantity and frequency of a brand being viewed or discussed) is a very straightforward activity that can yield immediate insight. Leveraged with geographic and other social data elements this one activity can expose areas where brand recognition is lacking as well as provide insight into the efficacy of advertising and marketing in geographic locations. The outcome of this activity can allow your organization to segment advertising and marketing spend to more clearly align with brand impression management opportunities.

## Measure Customer Service

Using social listening to measure customer service and satisfaction is another "quick" win that can be realized by any size organization. Using social media data to find "Voice of Customer" is a very powerful gauge for measuring organizational effectiveness in handling customer service. By designing a simple sentiment model and aggregating comments from social media channels, an organization can monitor customer's feeling towards the organization, products, and customer service in near real-time. Insights from this activity can provide a powerful tool to design and offer enhanced or tailored customer service offerings to certain clients based on the insights gained.

## Next Steps

When your organization has gotten comfortable with incorporating social listening as a means of understanding customer segmentation opportunities, the next step is to merge your internal customer insights from data warehouses and online datastores with social listening data. This also can be done incrementally, but allows the organization to create a centralized view of external customer behavior and how it aligns with internal customer knowledge. This step of embracing Big Data allows the organization to align external messaging feedback with internally observed behaviors. By merging these data inputs, the organization will be provided a more defined view of customer's real needs and wants versus their perceived needs and wants. When this activity can be realized, the organization can become more focused on actual customer behaviors, and as a result become more agile and competitive in reacting in the marketplace.

## Lessons Learned

Social listening doesn't have to be an insurmountable problem to solve for any size financial services organization. By using proven technology partners and service providers, customer segmentation and social insight can be enabled with low impact to the organization. Taking incremental steps and building upon proven social measurements like brand impressions and customer service sentiment can open the door for further conversation across the company as well as help define future direction in using Big Data in your enterprise.

Business Intelligence & Analytics

## Big Data Challenges in Banking

By: Elizabeth Dias

Similar to previous hyped technology trends like cloud computing, gamification, and many others, Big Data will either take years to progress or it may evolve and mature quickly, leading to rapid adoption. One of the biggest challenges right now for the industry is understanding how Big Data can deliver on its promise of increased revenue and provide a competitive advantage for financial institutions bringing new products and services to the marketplace.

Organizations can hurdle the disillusionment phase and deliver on the promise of Big Data by addressing these five roadblocks:

1. **The 'Aha' Moment** – The job of technology providers and consulting companies is not done yet. Vendors and service providers must continue to provide more thought leadership, granular data modeling and specific templates to generate that "aha" moment for organizations, and provide a better model and visualization of how technology can solve a business problem in a more meaningful way. Until then, many financial institutions may continue to scratch their heads when it comes to Big Data.

2. **Budget Constraints/Cost Overruns** – Data analytics have traditionally been lengthy technology projects. Part of the misconception of Big Data projects is around the technology's total cost of ownership. Developing a true cost-benefit model may be difficult when significant upfront development costs with tools like Hadoop are common. New analytical platforms for Big Data analytics are making setting up a platform – and seeing a return on investment – more achievable than ever before.

3. **Knowledge Gaps** – Lack of business and IT know-how present numerous challenges for banks looking to implement Big Data strategies. IT strategies and business processes for Big Data are very different. Gaps in data storage and processing strategies, plus lack of CIO know-how or direction will cause banks to falter. Banking technology professionals may also still lack knowledge of Big Data management tools. Technical and end-user training may also prohibit banks from adopting Big Data.

4. **Cost Overruns** – The amount of data managed by financial institutions has grown dramatically and it will continue to do so as companies begin to look at "dark" data sources and look for new insights. Along with the cost implications of increasing data storage demands, a vast majority of banks' traditional data governance and data management practices aren't capable of supporting Big Data requirements and can lead to costly and delayed data analytics projects.

5. **Business Alignment** – Banking CEOs and key stakeholders have very focused business objectives. Often times these business objectives aren't in alignment with Big Data ideas making this a top roadblock for financial services organizations.

Business Intelligence & Analytics

# How Banks Can Reach 'Enlightenment' with Big Data

By: Elizabeth Dias

Through a combination of best practices, technology tools, proven architectures and efficient project team structures financial services companies can achieve success with Big Data. Here are some tips to get your organization on the right path:

## Tip #1 – Doing Nothing is Not an Option

There is consensus in the industry and amongst top CIOs that they will all have to embark on this journey with Big Data – it's just a matter of understanding how they do that. As with any other emerging technology, it is wise businesses tread lightly when starting Big Data projects, but doing nothing is the last thing a bank should do! Doing so will make it hard to compete regardless of size. Companies in general are already streamlining business intelligence. Forward-thinking financial institutions need a CIO who is a visionary, strategist, operational thinker and understands the business's goal to reach 'enlightenment' with Big Data.

## Tip #2 – "Don't Boil the Ocean"

Banks need to prioritize their technology investments with Big Data use cases that provide the best opportunity for the business and show value. Take baby steps with Big Data but be prepared for the future with deployment of enterprise scalability, flexibility and data governance best practices that will support the project as data volumes continue to grow.

## Tip #3 – Develop a Roadmap

In order to not "boil the ocean", banks should look to their strategic IT partners and service providers to guide them on what technologies are the ones that will help the most. IT consulting companies can provide a technology-agnostic view for organizations with the development of a Big Data strategy, roadmap and implementation plan that encompasses their existing investment in conventional data warehousing technologies to take things to the next level with a Big Data ecosystem.

## Tip #4 – Find Value from Within

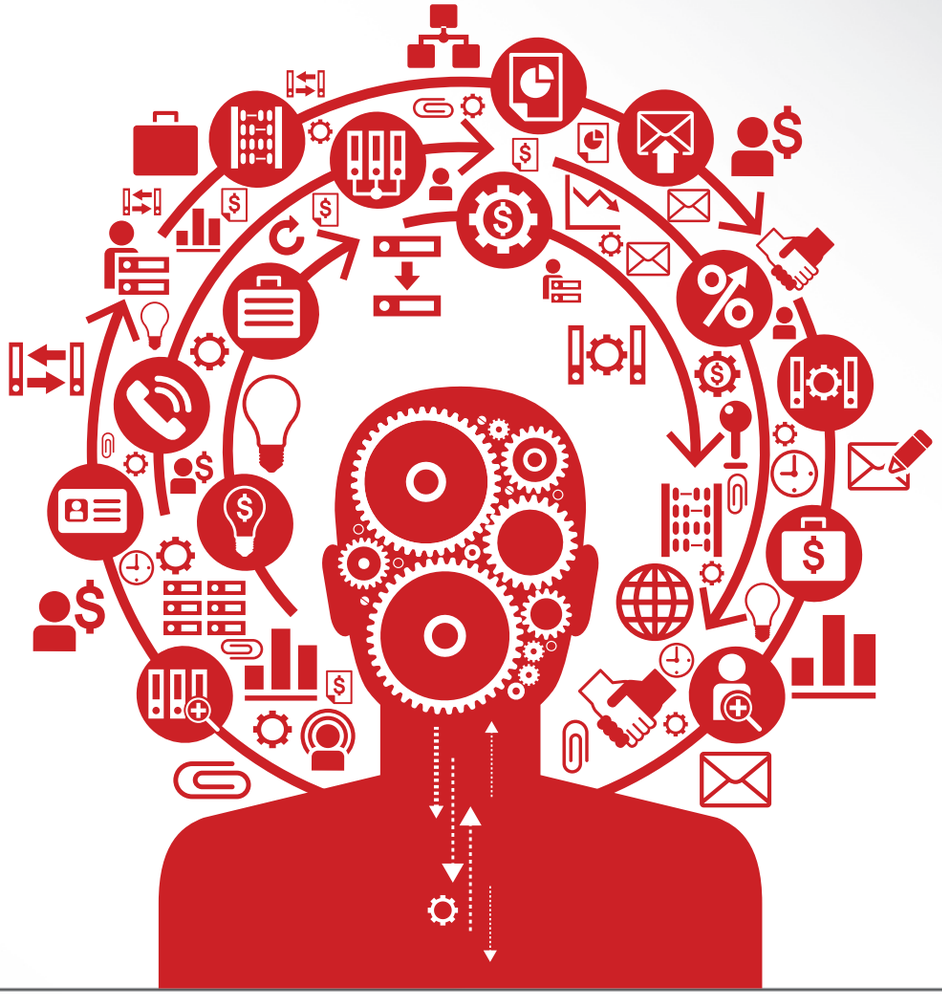
Leveraging information in a bank's data warehouse or data mart for a competitive advantage should be a common practice. Banks need to centralize structured data sources – retail information (bill pay, ACH), mortgage data (originations), consumer credit information (fraud, card management), auto finance, treasury services, capital markets, and loyalty behaviors – to make Big Data successful.

Download our **Big Data white paper**
for more information: Perficient.com/Whitepapers

## Tip #5 – Be a Leader in the Social Revolution

Look for data in available new sources. Beyond the traditional structured data sources, banks can easily expand their analytics capabilities by analyzing, in real-time, unstructured data generated from social interactions (Facebook and Twitter), web conversations, click streams and other similar sources that measure sentiment, enable segmentation and deliver targeted offers in real time to a bank's customers.

Find out the rest of Perficient's Big Data tips for success in our "Big Data Planning Guide for Financial Services" white paper.



Enterprise Information Solutions

# Perficient Q&A: Overcoming Master Data Hurdles in Banking


**Elizabeth Dias**
Financial Services
Marketing Manager
Perficient


**Ben Leeson**
Financial Services
Marketing Manager
Perficient

**Elizabeth: What is Master Data Management?**
**Ben:** My formal answer is Master Data Management (MDM) is the desire and attempt to get an enterprise consensus and singular view of a particular set of related data within an information domain (e.g. Customers, Suppliers, Products, Accounts) used to support critical business processes and to facilitate decision making. These decisions may be operational, some analytical, and others managerial in nature. The key to MDM is to understand how the data helps to make decisions – whether it's an algorithm, workflow, or a report – in each of these realms. And that is why MDM can be like Wile E. Coyote chasing the Road Runner.

**Elizabeth: Are you saying MDM isn't a worthwhile endeavor?**
**Ben:** In many cases it may not be. The way I think of it, businesses have been managing information for years and now we're supposed to care about a new way of thinking about it? And frankly, banks don't go out of business because they lack a MDM solution, and many financial institutions are successful without one. So I'd advise anyone undertaking MDM to take a step back and ask themselves if the payoff is worth the effort.

**Elizabeth: How do they answer that question?**
**Ben:** The payoff is typically in simplification – one authoritative instance of data that all operations, analytics, and management source to and from. I'd then have to ask why they would source to and from a master data solution. Why not just continue to self-manage the data or get data from somewhere else? Why the headache of synchronization? Why change their architecture? Why develop new processes?

This is where Perficient, as a technology partner and integrator, helps our financial services customers. We engage the business to put together a strategy for their MDM environments. We help customers understand the benefits of master data: high value, shared data in a consistent and standard format delivering meticulous metadata and uncomplicated integration. Providing those capabilities is the value of master data. If a data consumer needs data, they know the Master Data has the highest data quality within the company, practically 99.9% defect free. It must have good metadata, particularly business metadata. And it must have integration processes that are not cumbersome.

**Elizabeth: We're definitely seeing an increased focus on MDM in financial services. I think more and more banks are starting to ask this question as things like social, mobile and Big Data become more of a game-changer for them. They're starting to look at information as an enterprise strategic asset. The next step for them is to address the challenge in accessing data and pulling domains together to create more than just a "golden record" of their customer.**
**Ben:** That's correct. Or they're seeing their current MDM solution not being optimized because of misalignments between the business, communication, ownership or other contributing factors. Also, the reality is many FIs have MDM already and are either not getting the value from it or they simply don't call it MDM. It might be called the customer hub or something like that, so there's still some confusion about what MDM is as a practice and general data management disciplines that companies are already doing.

Enterprise Information Solutions

# The Payoffs of MDM for Banks


**Elizabeth Dias**
Financial Services
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**Ben Leeson**
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**Elizabeth: Let's talk more about the payoffs for financial services.**
**Ben:** Having a data focal point drives reuse, controls redundancy, and reduces confusion – which all lead to major improvements in efficiency for financial institutions. MDM allows the business to shift risk to data stores that are primed to manage it. Suppose for business and privacy reasons a credit card application process doesn't retain Date of Birth past the initial submission of the account. To improve conversion rates, the design of the process is meant to be lean. But then the Credit Card Act of 2009 comes along and says anyone who has a card must be at least 18 years old and if you can't verify the age then you have to assume they're under the age of 18. By design, the credit card system wouldn't necessarily have the information, so asking it would produce many false positives. But with a MDM customer hub that does maintain Date of Birth, many of the blank fields and false positives, would be filled in allowing the company to prove the age of most of its card holders. The business gets to continue with its lean application process and not take on more privacy risk while still proving to regulators that their accounts are age appropriate.

**Elizabeth: That's a great example of how banks can use MDM for conformance to compliance, security and privacy requirements. I know you'll be sharing some other use cases during our webinar around mergers and acquisitions, improving the customer experience across banking channels, tracking customer information and using master data to make better business decisions. With benefits like that, why does MDM prove elusive?**
**Ben:** MDM is just like other enterprise level programs that struggle with implementation, adoption and maintenance. The first question I typically ask is what is the data strategy for the company? Is MDM part of that strategy? You have to consider the economic, execution, social, and political impacts within the company. The common thread is Data Governance. It's vital to partner MDM with Data Governance. It'll help with stakeholder buy-in, process flow, architecture, and the politics of "data ownership."

Assuming MDM is part of a financial institution's data strategy, then the governance debate begins. What data does the company want to be mastered? Remember, this data has to have high data quality, metadata, and integration worked out. Next, you'd have to sort out business rules to settle data conflicts. Suppose I'm a financial services company with several lines of business. Within the company are retail banking customers, small business owners, trusts and clients. It's inevitable someone will be in more than one group and chances are the data, such as primary phone number, will be different. For MDM, which one is ruled authoritative? We've now circled back to the question what data should be mastered; you have to be careful about what data is context dependent and which isn't. A primary phone number changes depending on the context.

**Elizabeth: It sounds like to make MDM a success, a lot of collaboration is needed between the different business departments and then the technology group?**
**Ben:** Yes, each stakeholder must take into consideration all the other domain perspectives and then be willing to compromise to achieve the benefits of MDM. When fully implemented the company benefits similarly to when quality programs (TQM and Six Sigma) were instituted in the '80s and '90s.

**Elizabeth: Where do you see MDM heading?**
**Ben:** I recently read a mind boggling stat, "from the beginning of recorded time until 2003, mankind created five billion gigabytes of data. In 2011, the same amount was created every two days. By 2013, that time will shrink to 10 minutes." That's a lot of data. My take is data is an ambiguous resource that can head in any direction except reverse. Because of this I see MDM becoming more statistical in nature. For example, instead of verifying my address as fact, there'd be no verification but rather a statistical certainty based on all the data that is collected.

I also believe since data is getting increasingly discrete and real time, the use cases for master data will grow as the financial services industry continues to push the limits with technology innovation. From a solution provider perspective, MDM vendors will need to develop more out of the box templates around processes for quick starts. In turn, we'll see more organizations able to move to developing a "golden profile" versus a "golden record" for their customers.

Enterprise Information Solutions

# Where's Waldo? The Case for Enterprise Content Management

By: Mike Panzarella

To coopt a phrase from a popular children's book and game series, "Where's Waldo?" This simple question along with the ever present who, what, when and why, are often answered with inconsistent or incomplete responses in Enterprise data. As companies have merged, acquired and grown, many times it's virtually impossible to get an answer to those time honored questions without consulting several platforms, legacy and web based applications, departmental portals and divisional Datamarts, Data Warehouses and perhaps a few CRM systems.

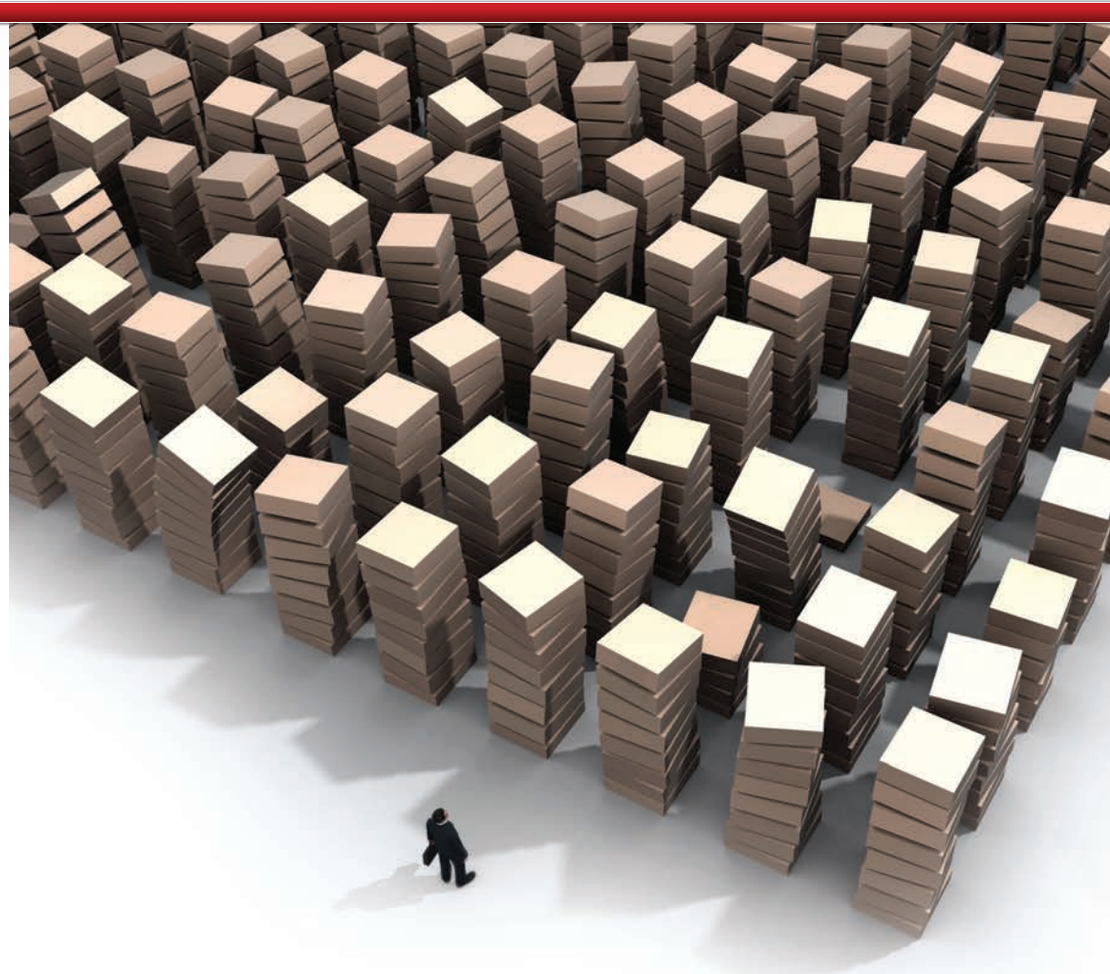
## More Data, More Problems

With the ongoing push in the Financial Services industry to merge, acquire and grow, it's not too surprising to see the amount of customer data, images, web content, and related Metadata growing at annualized rates of 30-50 percent. At the same time, the advent of (relatively) low cost data storage, "Big Data", and cheap mid-range server options has enabled organizations to continue storing customer information in multiple Data stores, or has fostered byzantine integration strategies to force these disparate data elements to play well together. Throw in the chance that customer and other sensitive data can be exposed to multiple user communities on these various platforms, and the possibility of a security breach becomes (and has been) a grave problem.

While this scenario will elicit a knowing smile from many of my readers, the sinister reality is that putting off a comprehensive Enterprise Content Management (ECM) strategy, paired with mature Reference Data and Master Data Management initiatives, causes demonstrable results such as poor customer satisfaction, customer attrition, security failures, and internal operational inefficiencies.

## We Just Need a Better Database

ECM is much more than just Portals and Database schemas. ECM should be thought of as a comprehensive enterprise approach to unifying data and making it available at the right time, at the right place, and to the right person. Having a comprehensive Data Governance policy and implementing a consistent ECM platform in lockstep not only greatly reduces cost to support customers, but also ensures regulatory and compliance issues are minimized while allowing greatly improved customer service.



Thankfully the newest generation of ECM tools have come a long way in providing open and flexible architectures to leverage existing investments in legacy and other internal data assets while providing overarching control and visibility. With today's generation of ECM tools, it's no longer necessary to "Rip and Replace" older systems, and the costs and time needed to implement an ECM Strategy for most enterprises are 30-50% less than just 5 years ago.

The projections for Enterprise data growth in the next five years (according to almost every industry measure) is in excess of 100 percent. In 2012, an ECM strategy is not a luxury, it's a critical necessity that will help decide those companies that thrive and innovate, and those that spin into "Analysis Paralysis".

Risk Assessment & Compliance

# Beyond Compliance: IT Risk Self Assessments

By: David Siegel

In the financial services practice, compliance audits and vendor security evaluations are the norm for IT and operations. Our customers must meet standards to participate in the industry, to protect their assets, to protect their customers' personally identifying information, and to meet their regulatory requirements as a business. When IT organizations take part in completing these instruments for the business, the formal reporting does well to inform the business and its stakeholders about where current operational risk exposures are at the time of the evaluation, but there might be additional factors in the environment that might introduce new exposures or variables. The feedback provided by a more detailed risk assessment is an opportunity for the business to make strategic or tactical changes based on the level of risk they're willing to take in making those changes, or sometimes, in not making those changes.

While entire enterprise risk assessments could require extended engagements and investigation, our proactive customers that undertake IT projects don't necessarily feel the need to wait for the enterprise to catch up with their desire to take a closer look at their own practices, programs, people and plans. Many of the internal control concepts and components from the COSO (shorthand for the Treadway Commission Committee of Sponsoring Organizations) and CoBIT (Control Objectives for Information and Related Technology) frameworks can be blended to create a customized risk assessment focused solely on IT operations and its role in the larger organization.

Some of the specific domains for analyzing risk found most notably in the IT department include:

**Data & Configuration:** Beyond mere compliance, do technical departments have visibility into what new products and features they're going to be asked to support, and do they have what they need for supporting additional data being collected, used and disseminated? Will new features or rollouts require significant changes to the platform? Does IT have both the implicit and explicit power to influence product strategy to keep well compliant? Do new products get developed with IT and compliance representatives at the table?

**Operations, Performance & Availability:** Trouble tickets might be getting their responses in short order, but is the current process for 'keeping the lights on' able to minimize risks both internal and external? Does IT know enough about both the application architecture to be self-sufficient in servicing what's running on their platforms, or do they depend on application experts from the business to resolve issues and errors? Does IT have visibility into marketing efforts that might lead to increased demand? Do initiatives have benchmarks for performance that IT will be expected to maintain?

**Business Continuity:** While there are many continuity controls in audits and evaluations, does the IT department have the ability to actually go beyond the controls and execute some or part of their Business Continuity Program (BCP)/Disaster Recovery (DR) plan in an environment similar to their supported environment? When the environment changes with new functionality and features, is IT part of the team that helps adjust BCP/DR plans for those new features?

The importance of compliance audits and controls to get a snapshot of the IT organization's current state cannot be understated, but creating a customized risk assessment, whether formal or not, might help to give the business deeper insight into how to adjust to changes in their IT portfolio.

## About the Authors

### Mike Panzarella, Director, Practice Leader

Mike has 18 years of IT Leadership experience with Fortune 500 Financial Services companies that include American Express, Bank of America, Citibank, Merrill Lynch, and Huntington Bancshares. Mike's areas of focus are BI/DW Architecture, BPM Architecture, SOA Standards, BRMS, Big Data Analytics, Infrastructure Design, and ETL Processes. In terms of major initiatives, Mike has led the delivery of a Re-engineering of a Mortgage Origination Platform, Reference Architecture for High Availability Payment Processing system, and Branch account opening and selling tools and established Platform Architecture for a SAS Advanced Analytics platform.

### Jeff Fisher, Director, Operations & Advisory Services

With more than 20 years in Financial Services, Jeff has provided executive IT leadership to develop solutions for companies that include Capital One, Federal Reserve, and Visa. His areas of focus are in project management and governance, Lean process improvement, application development, core banking, regulatory, risk, data management, Payments, on-line account services, systems integration, information security and vendor management. Major deliveries included Lean BPI, Account Activation Systems, Treasury Systems, BI/Data Warehouses, Card Management, Banking Portals, Core Banking Platforms, JD Edwards ERP, PeopleSoft Resource Management, Card Payment Gateway, Regulatory Remediation of Enterprise Systems, and Transaction Processing systems.

### Elizabeth Dias, Financial Services Marketing Manager

Elizabeth is an experienced technology marketing strategist focused on the Financial services industry at Perficient. She has knowledge in business and technology strategies focusing on mobile banking and payments, marketing and data analytics, content management solutions and regulatory requirements. From a financial marketing perspective, Elizabeth has expertise with the convergence of technology and social media strategies for enhancing the bank customer experience across channels, along with the application of Big Data for developing new marketing capabilities such as mobile offers, loyalty programs and rewards.

### Melody Smith Jones, Solution Manager

Melody Smith Jones has specialized knowledge in the implementation and management of business intelligence, data mining, CRM and social media tools. She has 12 years of experience integrating technology into marketing and loyalty strategies and has also created customer-centric business intelligence data models used in executive decision making and has implemented companywide CRM systems used to capture and manage customer data. Melody has an M.B.A. from Xavier University in business intelligence and marketing.

### David Siegel, Sr. Solution Architect

David has more than 10 years of experience in systems development and business process modeling. As a deployment architect and consultant for the Perficient Financial Services national practice, he has expertise in the design, development, and deployment of enterprise and services architecture solutions. He also has expertise in enterprise and IT risk assessment as well extensive business integration and Service-Oriented Architecture (SOA) support.

### Abby Smalley, Lead User Experience Strategist

With 10 years of interactive industry experience under her belt, Abbey Smalley serves as a solution architect within Perficient XD's Strategy & Ideation Practice. Abbey has UX design expertise in financial services developing financial advisor portals and customer service solutions. Prior to working for Perficient XD, Abbey served as the Online Design and Usability lead for 3M's global mobile design strategy. Abbey is passionate about spreading the message of a user-centered customer experience and has spoken Internationally at several industry conferences. She is a contributor to Perficient's Spark and Financial Services blog and a part of the leadership committee for the Minneapolis Interaction Design Association (IxDA).

# 2013 Bank Transformation GUIDE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