Practical Application of Technology to Solve Regulatory Challenges

ISSA Symposium 17

21 May 2014
Who is here today

• Vice President and Partner with Strategy&, formerly Booz & Company
• Leads the Financial Services *Fit for Growth* practice for Strategy&
• Over 15 years of experience, focused on large scale business transformations spanning both operations and technology
• Relevant experience meeting regulatory requirements, most recently working with DTCC and six banks to stand up a consortium to offer a central, standard solution to KYC/AML and FATCA

• Vice President and Partner with Strategy&, formerly Booz & Company
• Leads the Enterprise Architecture practice for Strategy&. in North America, which includes the data and analytics
• Over 30 years of experience, focused on technology-driven business transformation, primarily in financial services
• CEO/President/Founder of five software and services companies
• Designed the payment and securities settlement and clearing systems for seven central banks
Regulatory change – do companies feel ready?

Solutions are multi-faceted, implementing one is not enough

That’s a lot… but there are success stories
Regulatory change – do companies feel ready?

**Regulatory change is a pressing issue – it’s not just the knowns, but the changing nature driving uncertainty**

Existing regulations

<table>
<thead>
<tr>
<th>Basel II</th>
<th>KYC / AML</th>
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<tbody>
<tr>
<td>Dodd Frank</td>
<td>AIFMD</td>
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<tr>
<td>FATCA</td>
<td>UCITS</td>
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Up-coming regulatory changes

<table>
<thead>
<tr>
<th>Basel III</th>
<th>EMIR</th>
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<tr>
<td>MiFID II</td>
<td>G20 Financial Transactions Tax</td>
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<td>Solvency II</td>
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Which of the following issues will likely be the most pressing for your organization in the coming two years?

- Market Volatility: 45%
- Regulatory Change: 43%
- More Competitive Market: 32%
- Rising Operating Costs: 29%
- Weak Growth Outlook: 28%
- Emergence of New Rivals: 22%
- Crackdown on Tax Avoidance: 18%
- Capital/Liquidity Shortfall: 18%
- Demographic Change: 15%
- Shareholder Pressure: 12%
- Public Hostility to Org/Industry: 10%
- Skills Shortage: 9%

Sources: Sunguard Financial Systems: Regulatory Pressure Cooker Compliance in the Boardroom (2014); Strategy& analysis
Organizations are scrambling to comply, managing both direct and indirect impacts

<table>
<thead>
<tr>
<th>Direct Impact</th>
<th>Indirect Impact</th>
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<tbody>
<tr>
<td><strong>Transparency &amp; Reporting</strong></td>
<td><strong>Cost Reduction</strong></td>
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</table>
| • Enterprise view requires data & technology integration, e.g.,  
  – DFA stress tests & CCAR  
  – FATCA  
  – Basel II/III | • Compliance spend and capital needs increase cost pressure, e.g.,  
  – Compliance ~$50B by 2015  
  – IT costs 6.9% CAGR 2014-17 |
| **Liquidity** | **Lost Business Focus** |
| • Capital & liquidity limits require enhanced modeling, e.g.,  
  – DFA  
  – Basel II / III  
  – SEC Rule 2a-7 | • 50% of executives say regulatory pressure is impinging their ability to do business |
| **Globalization** | |
| • Global as well as local rules drive complexity, e.g.,  
  – KYC/AML  
  – FATCA | |

Enterprise Wide Implications

- Requires coordinated response across traditionally siloed business units, functions and regions, optimizing resources and initiatives

Sources: Sunguard Financial Systems; IDC; Strategy& analysis
The impact on technology and data is significant, with a need for rapid reaction to change driving increasing investment.

Common challenges

“Our data is distributed across regions, functions & systems – how do we rapidly get an enterprise view?”

“Technology is aging and not integrated – how do we meet reporting & compliance while maintaining cost?”

“Evolving reforms have already overburdened systems and organizations … what technology innovation would help relieve this stress?”

“Increasing adoption of mobile and real time escalates regulatory oversight… what is the optimal way to manage delivery?”

Technology must evolve and be designed to evolve

The groundwork for the emergence of a new business and IT paradigm

- Enterprise view of risk, return, cost and asset quality
- Common enterprise data taxonomy
- Real time platforms & analytics
- Fit for purpose infrastructure for transparency & resiliency

Technology requires the greatest investment

Regulation causes business to change – but also significantly impacts technology

<table>
<thead>
<tr>
<th></th>
<th>Increase</th>
<th>No Change</th>
<th>Decrease</th>
</tr>
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<tbody>
<tr>
<td>Tech Investment</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance Budgets</td>
<td>62%</td>
<td></td>
<td></td>
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<tr>
<td>External Specialists</td>
<td>57%</td>
<td></td>
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</tr>
<tr>
<td>Staffing Numbers</td>
<td>55%</td>
<td></td>
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</tbody>
</table>

Source: Sunguard Financial Systems; Strategy & analysis
Do companies feel ready? Some... but challenges remain for management, infrastructure and staff

Leadership is stretched thin...

80%

C-suite executives face significant stress due to fear of damage to firm and personal reputation and the overhaul in IT and operations.

Firms anticipate significant change in the leadership team (size, responsibilities, etc.).

Infrastructure requires significant change...

80%

Capital Markets firms plan to enhance compliance development, e.g.,

- Outsourcing QA/testing of compliance IT development
- Cloud-based regulatory reporting
- Big data to identify compliance breaches

...and talent is running short

11%

Rise in salaries for regulatory roles due to talent shortage; firms are meeting short term needs with external support.

Adopting a holistic approach via integrated governance, risk and compliance programs

68%

Regulatory change – do companies feel ready?

Solutions are multi-faceted, implementing one is not enough

That’s a lot... but there are success stories
Solving for Regulatory and Compliance challenges requires a multi-faceted approach to IT

Vendors are not the only third party solutions – emerging utilities take on un-differentiating tasks to meet regulatory needs

Execution is critical – optimize organization, methodologies and technologies to execute technology-driven transformations

Determining data needs once – enterprise view to fulfill multiple regulatory requirements

Buy versus build – vendor solutions can be leveraged to support regulatory and compliance functions

Design for flexibility – how you architect now helps you meet continued change
Integrated requirements and a common taxonomy enable enterprise reporting without heavy data transformation

From 2014-2015, Financial institutions will increase spend on data management by 17% from US $7.5B to US $8.9B. Spend on analytics is considerably higher – growing by 12% from US $10.7B to US $12B.

1. **Enterprise reporting (e.g., KYC / AML / FATCA for customers spanning assets, markets and jurisdictions)**

2. **Data is ever increasing – driven by process automation, digitization and market needs (e.g., mobile, real-time)**

3. **Data access is enabled through enterprise taxonomy standards, e.g., APIs connect local data stores and central reporting**

4. **Integrating data is onerous and expensive – a federated approach is recommended with local management of data definitions and quality**

5. **Enterprise reporting and analytics to fulfill regulatory requirements, with potential for additional revenue opportunities**
Solutions are multi-faceted, implementing one is not enough

Viewing data requirements holistically reduces effort – up to 80% of data may be common across regulations

Sample of Data Requirements by Regulation

European Markets Infrastructure Regulation

Dodd-Frank

Foreign Account Tax Compliance Act

Know Your Customer

Legal Entity Name

Legal Entity Address

LEI

EMIR Tax Details¹

Specific EMIR AVOX Fields

EMIR-Specific Requirements

FATCA Special Entity Tag

Specific Dodd-Frank AVOX Fields

US Person Flag / Qualifier

Legal Entity FATC Requirements

Legal Entity Structure

Tax ID

Industry Classification

Officers / Directors

Relationships

GIIN

Tax Docs

FATCA Fields

US Indicia / Details

Consortium Status

PEP Status Review

1) Data entities are partially shared between regulatory requirements

Source – Strategy& Analysis, Marc Murphy FIMA Video (Fenergo, 2/27/2014)
Firms are looking to 3rd parties for integrated solutions to address governance, risk and compliance challenges

Adoption of Governance, Risk and Compliance (GRC) Systems by Banks (2012)

- No Plans to Buy: 38%
- Plan to Buy in Next Year: 7%
- In Process of Implementing: 18%
- Currently Operating: 37%

- Interest is growing rapidly – survey in 2011 showed 50% had no interest in a GRC system
- In 2015, financial institutions are projected to spend $1.4B on GRC software
- Banks face a choice – update complex, aging custom solutions or leverage integrated solutions offered by 3rd party vendors

Sample of Leading GRC Vendors for Financial Services

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<tr>
<th>Type</th>
<th>Sample Vendors</th>
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<tbody>
<tr>
<td>Data Management</td>
<td>Goldensource, PolarLake, Smartstream, Informatica</td>
</tr>
<tr>
<td>GRC Systems</td>
<td>Oracle Fusion, IBM OpenPages, Nice Actimize, SAS® Enterprise GRC, SunGard Ambit Operational Risk, Wolters Kluwer ARC Logics</td>
</tr>
<tr>
<td>KYC / AML / FATCA</td>
<td>Strevus, Fenergo, CTI, KYCnet, KPMG</td>
</tr>
<tr>
<td>Other</td>
<td>Recognos, Pega, Alacra</td>
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Firms should explore leading technologies and practices to improve IT delivery efficiency and effectiveness

- “Cloud” is fundamentally scalable, virtualized and standard IT delivery
  - **Cost Savings:** 20-60%
  - **Scalability:** capacity in minutes, not weeks
  - **Ease of maintenance**
- Market $76.9B in 2010 to $210B in 2016 – 63% of financial institutions
- Small, cross-functional teams ("scrum") with incremental delivery in iterations ("sprints")
  - **Faster time to market:** 70% reduction
  - **Business Collaboration**
  - **Flexibility**
- 52% usage, with 35% relying on hybrid methodologies to meet regulatory & audit

The emergence of industry utilities are enabling firms to meet new client and regulatory demands in an efficient manner

- Industry “utilities” are on the rise – traditional role is expanding beyond back office to middle and front.
- Banks see increasing value – consolidating non differentiating capabilities into an industry standard to support regulatory needs (e.g., EMIR, KYC/AML, FATCA).
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That’s a lot... but there are success stories
Case Study #1: Global Custodian Bank

Context: technology-driven transformation to significant reduce cost while improving quality and service

Transformation Solution

<table>
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<tr>
<th>Benefits</th>
<th>Transformation Solution</th>
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<tr>
<td>Improved Resiliency &amp; Quality</td>
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<tr>
<td>Lower Operating Costs</td>
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<tr>
<td>Enhanced Client Service</td>
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Transform

- Highly-available, real-time processing
- Resilient technology & embedded quality controls
- Digitization / rules-based automation
- Flexible multi-basis, multi-asset class ledgers
- Process & control transparency

Foundation

- "Golden" Data Repository
- Cloud Based Processing
- Lean-led Processes
- Operating Model

Internal Compliance

- A control framework to facilitate fast changes to accommodate changing compliance needs
- Aggregated and dynamic reporting, enabled by automation and enhanced data management

Additional Opportunities

- Innovative capabilities for clients including real-time data, risk transparency, analytics, and flexibility to service any asset class and fund structure globally
- Parallel opportunity to offer full-service client onboarding and reporting, leveraging data transformation from effort

• End-to-end STP and real-time data capabilities
• Delivered $400M-600M in cost reduction over ~5 years
• Highly resilient with customizable embedded quality controls
• Enables day-to-day transparency into regulatory, contractual, policy and procedural process controls
**Case Study #2: Client Reference Data Utility**

**Context:** Deliver a trusted source of standardized data and processing for FATCA and KYC

**Current State**

- Bank 1
- Bank 2
- Bank 3
- Bank 4

**Target State**

- Utility
  - Bank 1
  - Bank 2
  - Bank 3
  - Bank 4

**Mission**

- Drive the industry’s call for a comprehensive, global, standardized platform to collect and manage client reference data
- Create a solution that increases control and data security while reducing operational complexity for all industry participants through standardization and digitization

- A **single trusted source of standardized data** based on industry agreed validation rules and controls
- **Regulatory compliance** through provision of data focused initially on FATCA, Dodd-Frank and KYC
- Standard document management and **controlled delivery** to all counterparties
- **User-governed solution** that adapts to industry change
- Innovative data services with functionality focused on **secure permissioning, digitization, cleansing, and a validation**
- High availability via **scalable platform** 24/6.5, supported by experts with deep knowledge

**Founders**

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<th>Founding Banks</th>
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<td>Barclays</td>
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<tr>
<td>Credit Suisse</td>
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<tr>
<td>J.P.Morgan</td>
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<td>Goldman Sachs</td>
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<th>Operating Partner</th>
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<td>DTCC</td>
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<td>BNY Mellon</td>
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### The entire company must be committed – organize at an enterprise level and drive new behaviors

**Eight Success Factors for Regulatory Change**

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<tr>
<th>Management System</th>
<th>Operating System</th>
<th>Culture Change</th>
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| **1** Top Management Fully Committed  
(Senior level ownership – managing program and establishing governance) | **2** Strategic view of Regulatory  
(compliance, cost-saving & revenue generation) | **3** Organization Engagement  
(talent availability, accountability, incentives) |
| **4** Enterprise-wide Program Office to Drive Change  
(alignment to strategic goals, financial accountability, and coordination with other enterprise initiatives) | **5** Comprehensive Regulatory Roadmap to deliver Early and Long Term Change  
(regulatory reforms timelines & milestones, identification of most critical implementation challenges, prioritization & planning of individual work streams / initiatives) | **6** Enterprise Transparency  
(reporting & analysis across all regulatory aspects, to a broad set of stakeholders including technology, operations, customer experience and front office) |
| **7** Active Participation & Ownership of Staff in the Program  
(ownership balance between LoBs, centralized compliance function and program) | **8** New Behaviors and Mindset Systematically Developed  
(driven by enumeration & performance and talent development & succession planning) |  |

That's a lot… but there are success stories
THANK YOU