



SOA in the Banking Industry

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Take Credit Code: SOBANK

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Overview of Findings

- SOA adoption is still nascent in the banks
 - Some banks have strong central enterprise architecture teams, while others are not very well centralized
 - The key Shared Services being implemented at Banks include
 - Account maintenance and management
 - Compliance and Governance
 - Customer-facing services
 - There is very little outsourcing / off-shoring being implemented by banks today
 - Banks are still in the early stages of implementing technology solutions for their SOA projects
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Key Workflows / Business Processes

- Banks traditionally think of themselves in three components:
 - product (like mortgage, banking, brokerage)
 - channels (how they interact with customers)
 - customer segments (retail, business, etc.)
- Most banks are implementing customer-facing or focused-services
 - Account Opening process
 - Customer information management
 - Motivator: things like the no-doc mortgage
- Really want to think about intercepting customer data much earlier in the customer interaction process – thus simplify the processes and Shared services.

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Compliance: A key motivator

- Compliance and Governance
 - Motivating large banks to centralize and Share Services as well as data
 - Significant need for auditing and accountability
 - Rules change frequently, so SOA seen as solution for continuous business agility
- Regulations
 - Large banks have to deal with many local regulations that change frequently, but affect their core data
 - Sarbanes-Oxley
 - Basel II
 - Check21
 - Regional Privacy Regulations (California data disclosure act)

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The State of SOA in Banking

- SOA is a different architectural paradigm than banks are used to
 - The best banks have a strong, centralized, architecture and IT management arm, and a distributed application development group
 - Strong, doesn't mean large
 - However, most banks don't have a strong or centralized architecture team, leaving SOA to individual and independent business units.
 - Multiple years for SOA to really be fully rolled out at most banks – so they are doing “progressive renovation” as the way to go.

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Outsourcing / Off-Shoring

- Banks in general are reticent to off-shore, outsource their Shared Services.
- However, banks are deciding on a Service-by-business basis. Basically, as Services go outside the bounds of the business, they are deciding to off-shore as needed
- Many banks do their own development and offshore as a way to reduce development cost
- IBM sees more interest with mid-size banks for outsourcing.

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Where the Services are At

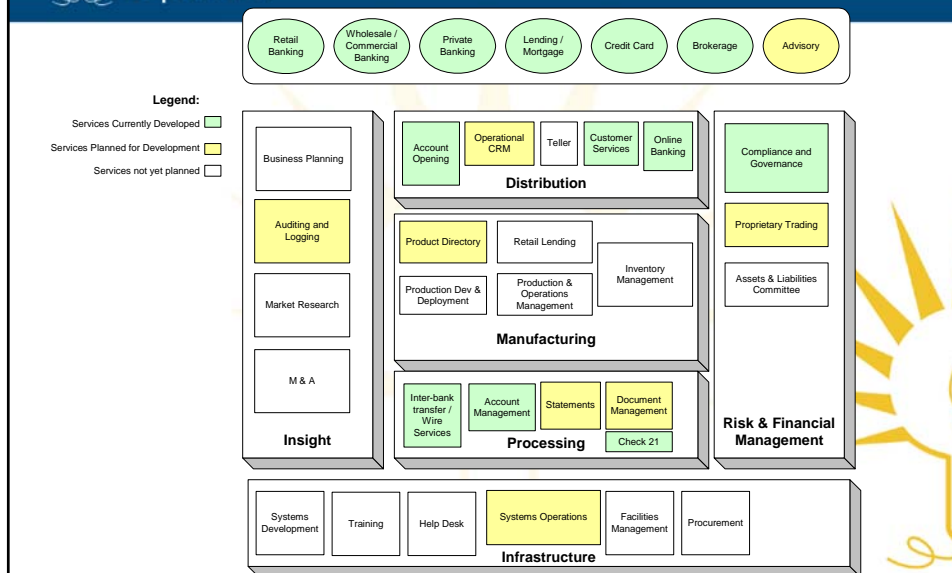
Banking Function	Currently	Service-Oriented
Account / Customer Management	<ul style="list-style-type: none"> • Islands of activities • Little shared information, Services 	<ul style="list-style-type: none"> • Common set of account tasks • Shared information
Corporate Compliance and Governance	<ul style="list-style-type: none"> • No bank-wide visibility into activities • Unlimited liability for outcome 	<ul style="list-style-type: none"> • Increased visibility into regulated activities • Reduced corporate risk
Check21	<ul style="list-style-type: none"> • Movement to document management infrastructure • Unknown cost exposure 	<ul style="list-style-type: none"> • Movement to industry-wide Shared Service • Economies of scale
Interactive Banking	<ul style="list-style-type: none"> • Independent activities for banking, brokerage, lending • Long IT cycles 	<ul style="list-style-type: none"> • Common customer interaction Services • Reduced IT development time

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The Service-Oriented Bank





Bank A

- Current State of Shared Services
 - Most important Shared Services are for Customer data management.
 - Also looking at Common Customer Services – certain levels for opening accounts, providing general information to the customer
 - Also share things some “utility” services
 - More than simply data exchange.
 - They have Services they offer up with lines of business: the ones of most interest to business are the ones that allow them to interact with external customers
- The question is the business ready to operate as a global unit rather than individual units?

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Bank A (Cont)

- State of SOA
 - It's clear that Bank A is well ahead of many competitors
 - Have a physical, central enterprise architecture group that plans Services for the whole company called the Enterprise Architecture Team that exerts strong central control.
 - Most of the common functionality they implement in SOA
 - The SOA project had its origins with ORBs and CORBA
 - In the last 5 or so years, they have really pushed SOA in the organization.
 - Services around IFX in banking and online banking especially
- Key: Moving more to TRANSACTIONAL services vs. INFORMATIONAL services

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Bank A (Cont)

- Current Technology
 - They see SOA infrastructure as more off-the-shelf than it was a few years ago, simplifying the process of building an SOA.
 - They implemented UDDI product (Systinet)
 - They have their own proprietary formats for exposing Services from mainframe – now using SOAP wrappers.
- Technology Challenges
 - The big issues are around design principles, requirements, and standards of design as well as standards for definition and exchange.
 - They are still struggling at UI that's usable for developers when they are creating new apps.

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Bank A (Cont)

- Outsourcing / Offshoring
 - They have very strict standards that they apply to architecture, so there isn't much proclivity for outsourcing or off-shoring.
 - For their internal Services, specific to their environment and exposing their data, they don't see that as their direction.
 - Control issue is really critical
 - Most services also deal with data, and they are very careful and secure about sharing data.
 - They are leveraging off-shore vendors for development.
 - Most successful model for off-shore development is when they have their own representative on-site, and Bank A technically manages the team
 - Most successful off-shore is when processes and procedures are mature.

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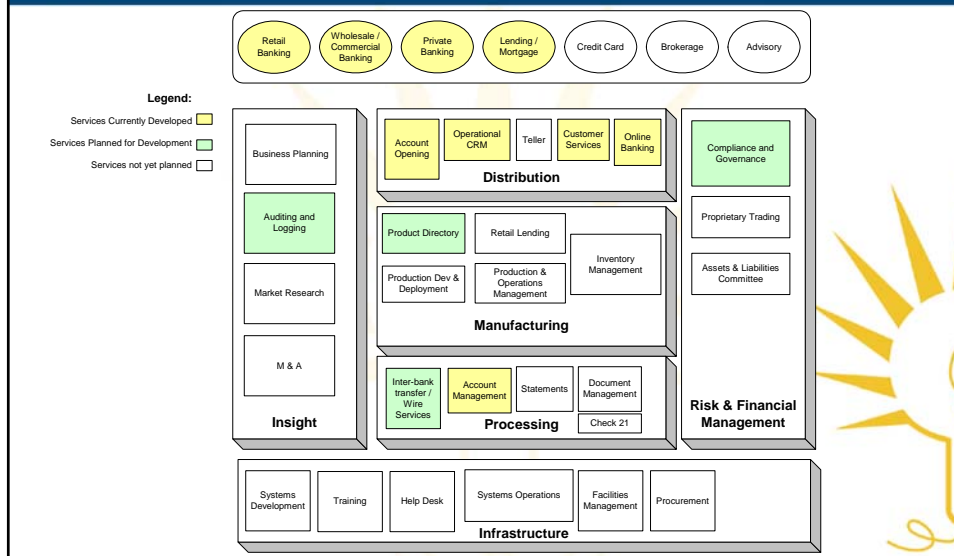
Bank A (Cont).

- Summary
 - Their business people at the top level feel more strongly about SOA than the developers at the bottom
 - The creation of a Shared Services is associated with specific projects
 - They have a lot of duplicate information, a lot of redundant data entry

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Bank A (Cont)





Mapping Services to Lines Of Business (LOBs): Bank A

Legend: Blue – Current, Green – planned

Shared Service	Applied to LOBs
Account Opening (Common service for single-point account opening)	Retail, Lending, Private Banking
Account Management (Common service for customer, account info.)	Retail, Lending, Private Banking, Wholesale
Customer Services (tax documents, etc.)	Retail, Lending, Private Banking, Wholesale
Online Banking (Web-based transactions)	Retail, Private Banking, Wholesale, Lending
Operational CRM (information requests, customer support)	Retail, Lending, Private Banking, Wholesale
Auditing and Logging (Conformance and Governance)	Retail, Private Banking, Wholesale
Product Directory (Common information on products)	Retail, Lending, Private Banking, Wholesale
Electronic Transfers (Bank-to-Bank Exchanges)	Retail, Private Banking, Wholesale

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Bank B

- Bank B is trying to become more customer-centric, which means integration of products and features across multiple groups.
 - There's a renewed emphasis to improve customer satisfaction
 - Now have a group called "Know the Customer" so that each different group knows as much about the customer as the other group.
- Shared Services:
 - Key: Customer address and basic account maintenance issues.
 - "Why make 7 calls to change an address?"
 - see brokerage, banking, credit, loan, and other relationships at one time
 - allow customers to opt-out of information sharing

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Bank B (Cont)

- Status of SOA
 - Already have SOA projects in:
 - Wealth and Investment Management technology
 - Rolled out to offices and requested by many. Was supposed to be just 6 month roll-out, but had tremendous demand and just rolled it out.
 - The Private Bank group now wants the same Services, and will roll it out for that group as well.
 - Now looking at Brokerage practice
 - Other parts of the bank have Web Services interfaces such as the “Know the Customer” group.
- They claim thousands of Web Services and millions of transactions, but it’s not secured, managed, and not truly on an SOA, but they are on the cusp.

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Bank B (Cont)

- Technologies:
 - Workflow tool by Fujitsu – iFlow
 - no centralized development and no centralized repository, or even departmental UDDI.
 - Most of their systems are RDBMS-based.
 - Mostly Oracle databases on HP/UX platforms.
 - Mix of Java and .NET – they are moving to .NET. The reality is that they have a lot of legacy Java that probably won't be converted.
 - Still see COBOL, DB/2, Teradata, still have CICS, have used MQ as well

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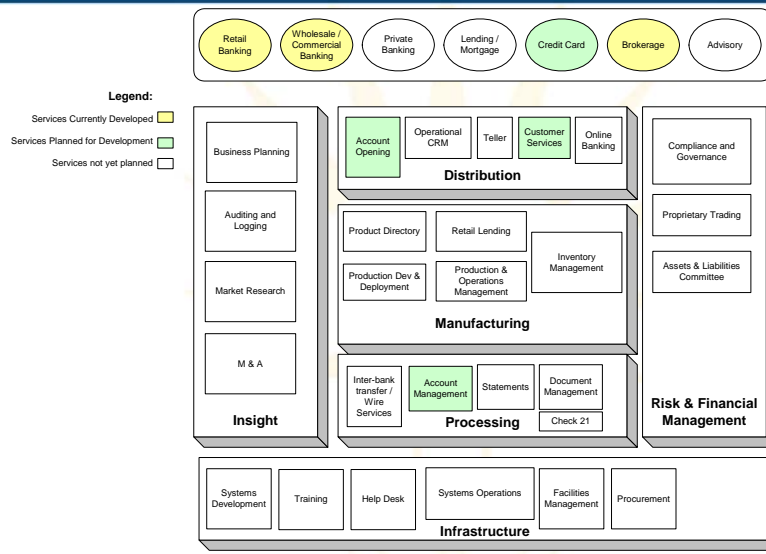
Bank B (Cont)

- Summary
 - Still very much in the beginning stages. Want to get information across without having to pass files or repeat data
 - Repeated data is a huge problem
 - They not only want to expose and share Services, but also consume them from other parts of the org
 - SOA is not handled separately – each group is like its own company. There isn't any central control for the architecture for Services. Don't have ANY top-down architecture or modeling. They will fix that over the next 2 years.
 - They are planning on having multiple, redundant Services and dealing with that fact later.
 - SOA hasn't yet been mandated by the CIO. The architects are now trying to sell up in the organization.
 - Reluctant to outsource / offshore SOA due to "newness"
 - They think about off-shoring from a perspective of custom coding work
 - Did some outsourced business process for Compensation sys.

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Bank B (cont)





Mapping Services to Lines Of Business (LOBs): Bank B

Legend: Blue – Current, Green – planned

Shared Service	Applied to LOBs
Account Opening (Common service for single-point account opening)	Retail, Brokerage, Credit Card
Account Management (Common service for customer, account info.)	Retail, Brokerage, Wholesale, Credit Card
Customer Services (tax documents, etc.)	Retail, Brokerage, Credit Card

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Bank C

- Current state of Shared Services
 - Does not think of themselves as a bank, but rather as a very large conglomerate
 - They have divisions, LOBs, and units. Each have information officers, architects, and decision makers
 - Particular countries are free-standing businesses of their own in some cases
 - Now transitioning to a more centralized model, which is becoming more pervasive in the industry.
- Biggest driver is trying to get **compliance and governance** across all parts of the conglomerate
 - Global Compliance functions that are being built for the entire enterprise.
 - Compliance with law, not compliance with internal policy.
- They aren't doing any work with Shared Services across "corporate barriers", but have some with Reuters, etc

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Bank C (Cont)

- State of SOA
 - Trying to consolidate customer interaction channels
 - Each app reproduces the business logic needlessly.
 - The transactions are the same, very rare that one channel can do one set of transactions that another can't do.
 - Have a middleware switch that is SOA that is now acting as encapsulation, composition point to checking and processing system
 - There are Shared Services at Corporate, Division, and LOB levels
 - Looking for enterprise architects

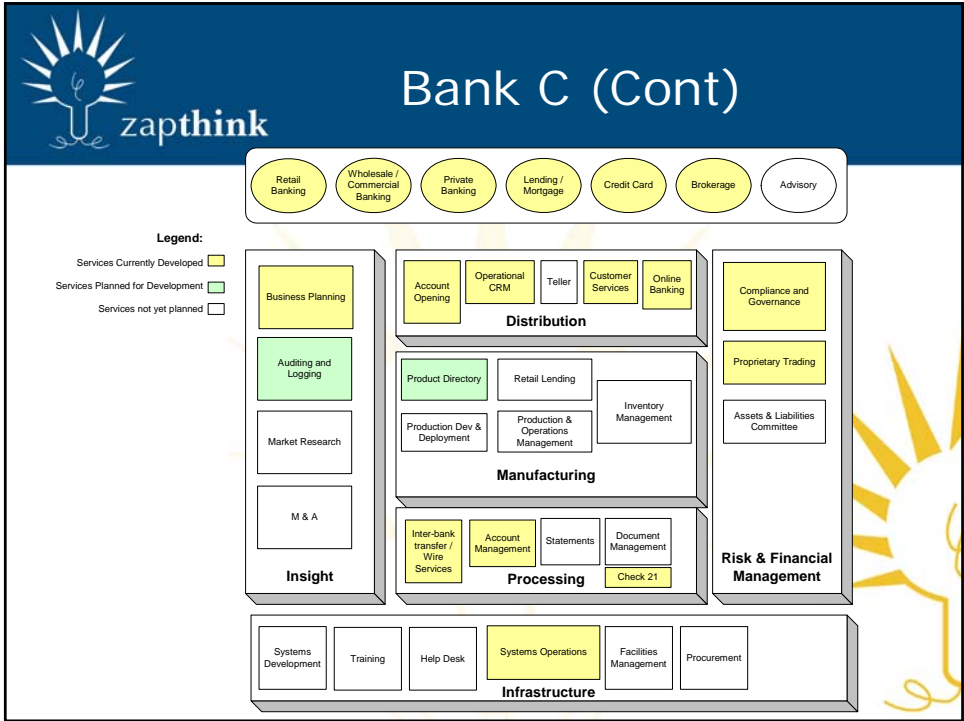
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Bank C (Cont)

- Outsourcing / Off-shoring
 - Customer information is another shared service, but only within the LOB – not across the conglomerate, but at the divisional level, such as NA Banking.
 - Sees three concurrent trends:
 - outsourcing (most mature of the shifts),
 - SOA (second most mature)
 - Model-Driven Architecture/MDD (least mature).
 - In order for all to work and deliver promised TCO, all of it is going to have to kick in at the same time
 - It costs Bank C about 25% per seat to do outsourced stuff in foreign companies.
 - Also looking at out-sourcing and off-shoring entire Services and Processes, which is the notion of white-labeling
 - There's no notion of privacy and ownership or security. Even tho the other banks say they don't outsource Services, he says they DO

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Mapping Services to Lines Of Business (LOBs): Bank C

Shared Service	Applied to LOBs
Conformance, Governance, Auditing, and Logging (Regulation Compliance)	Retail, Lending, Private Banking, Credit Card, Brokerage, Wholesale
Account Opening (Common service for single-point account opening)	Retail, Lending, Private Banking, Credit Card, Brokerage
Account Management (Common service for customer, account info.)	Retail, Lending, Private Banking, Credit Card, Brokerage, Wholesale
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Check21 (Bank-to-Bank Document Exchanges)	Retail, Private Banking, Wholesale
Product Directory (Common information on products)	Retail, Lending, Private Banking, Wholesale
Proprietary Trading (Services for advanced settlement)	Brokerage
Systems Operations (Back-office Service for Handling Integration / App Dev needs)	N/A



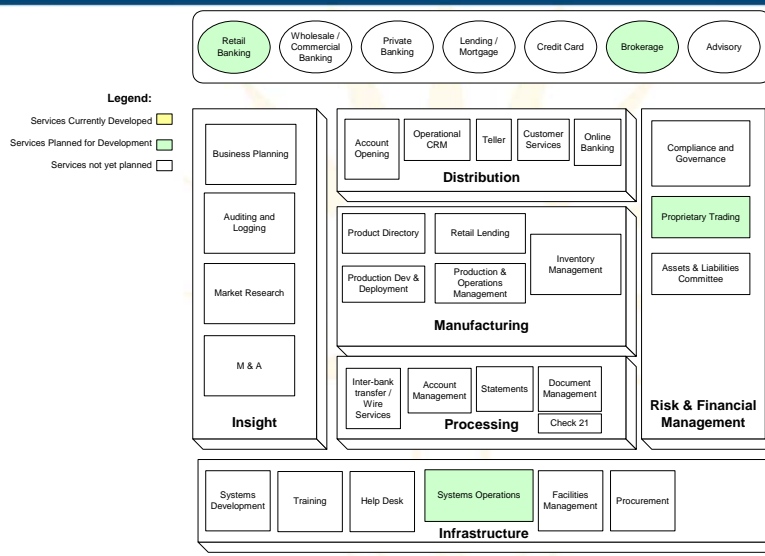
Bank D

- Summary
 - Developed Web Services and built SOA-based systems.
 - Doesn't see any significant movement to SOA within Bank D, but he has limited visibility.
 - One major SOA project: JRisk, which is a large trading system infrastructure.
- It's clear that contact didn't understand the difference between Web Services and SOA.
- Implementing pub/sub infrastructure SOA.
- No real information gleaned from Bank D Contacts – additional contacts would be needed to figure out what they are or aren't doing

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Bank D (Cont)





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Mapping Services to Lines Of Business (LOBs): Bank D

Legend: Blue – Current, Green – planned

Shared Service	Applied to LOBs
Proprietary Trading (Services for advanced settlement)	Brokerage
Systems Operations (Back-office Service for Handling Integration / App Dev needs)	Retail, Brokerage

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IBM Banking Group

- Implementing Shared Services for hundreds of banks...
- Regarding Shared Services:
 - “Distinguish between two models: the in-house shared model and the cross-organization model.”
 - Key Services:
 - Centralized procurement, centralized market utilities, customer communication utilities
 - Bad Debt Collection and Recovery across multiple units.
 - Outsourced Services:
 - Are seeing traction with Check21-based efforts

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Thanks!



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