

Financial Services Sector

WebSphere/MQ Software Platform Reference Architecture

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WebSphere

! The Fastest Way to e-business !

Topics

→ Value

Proposition

Industry

Trends

Reference

Architecture

Industry

Solutions

Customer Value Proposition

Our Customer Value Proposition is that our software products form an end-end infrastructural solution based on open standards that, when implemented, delivers an architecture that supports **complete enterprise-wide re-usability** of application and infrastructure function.

- Very few customers are looking to buy architecture; they want solutions.
- Solutions are applications - IBM depends largely on ISVs
- We hope to sell customers a series of solutions - This is happening now
- Multiple solutions means multiple ISVs
- It is a challenge to deliver on our Value Proposition

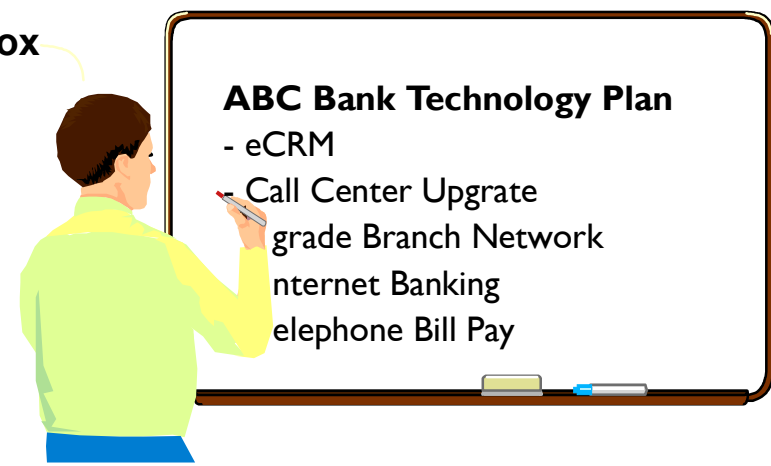
e-Finance Model - Industry Trends

- **Customer Choice**
 - ▶ In order to personalize we need to Know the Customers
 - ▶ Every Product/Service through Every Channel
- **Cross Selling**
 - ▶ "5 products per household by 2005."
- **E-mail/Electronic Bill Presentment (EBPP)**
- **Electronic Payments**
 - ▶ Internet is cash free today - Several viable alternatives vying for prominence
 - ▶ P2P - e-Money, C2it, PayPal
 - ▶ Credit Card Alternatives Sought
 - ▶ Wireless Payments
- **Globalisation (FIs AND FI Customers)**
- **Straight-Through Processing, aka T+0 Settlement, (STP)**
- **Portals and Aggregation**

New Age Strategies for FI Products

- Payments
- Bank2C (Consumers)
 - ▶ Internet Banking
 - ▶ Statements and Advices
 - ▶ Bill Pay
 - ▶ E-Cash
 - ▶ EBPP
 - ▶ Loan Origination
 - ▶ Safe Deposit
 - ▶ Account Aggregation
- Bank2P (Partners)
 - ▶ Transaction Suppliers
 - ▶ Other Banks
 - ▶ Outsourced Service Providers
 - ▶ Procurement
- B2Bank2C
 - ▶ Credit/Debit Card
 - ▶ Retail Lockbox
 - ▶ Retail EBPP
- Bank2B (Commercial)
 - ▶ Cash Management
 - ▶ STP
- B2Bank2B
 - ▶ Controlled Disbursements
 - ▶ Purchasing Cards
 - ▶ Wholesale Lockbox
 - ▶ Wholesale EBPP
 - ▶ Auctions
 - ▶ Trade Letters
- C2Bank2C
 - ▶ Person to Person
 - ▶ Retail Auctions
- Bank2Bank
 - ▶ Procedures
 - ▶ CRM
 - ▶ Customer Service
 - ▶ Acquisition Integration
 - ▶ Financial Accounting
 - ▶ Treasury Management

All of this translates into IT Projects...



- ABC Bank Technology Plan**
- eCRM
 - Call Center Upgrade
 - grade Branch Network
 - internet Banking
 - telephone Bill Pay

The FI's goal is to accomplish all of them with minimal rework !!!

New-Age Product Transformation

Traditional

- Customer calls multiple Banks to shop for best rate, then must visit local Branch to complete application. Receives approval in 1-2 weeks.
- Customer carries original documents (deeds, stock certificates) to bank and places them in Safe Deposit box

Modern

- Customer who registers at Realtor.com receives e-mail solicitation, completes online application, and receives approval in 24 hours.
- Original documents are scanned. Certified logal copies are stored by bank on secure server for online access from any browser anywhere.

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FIs slow to migrate - Why?

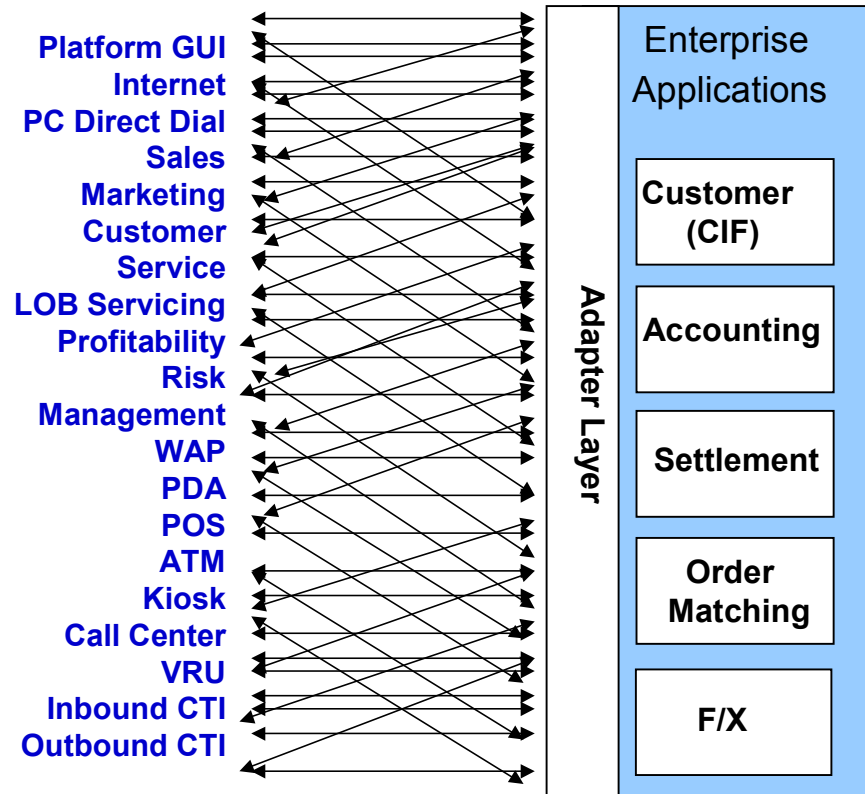
- In the States, only 1000 of 10,392 Banks had transactional web-sites in place in January 2000, as of January 2001 53% of US banks remain disconnected
- December 1999 c12million online banking customers => 30 million by 2003
- Demand is causing attrition and boosting non-bank competition
- Why so slow?
 - ▶ **Branches**
 - More Click or More Brick - Internet FIs seeking physical presence while traditional branch banks are closing branches (BankOne - 1800=> 1400 Branches by YE2000), E-Trade partnering with Target and Rite-Aid
 - Need smaller footprint - less risk
 - ▶ **Security**
 - Authentication - prove parties are whom they maintain they are
 - Integrity - Transactions and contracts have not been altered or tampered with
 - Confidentiality - no unrelated parties can access the details
 - Non-repudiation - parties cannot disavow transaction or contract
 - ▶ **Back-end Systems Integration (EAI)**
 - ▶ **Customer Service (Call Center, Workflow)**
 - 24X7X52, Move from phone to e-mail , Supply State information on Complex Business Processes

FI Business Model - e-Business is not new to FIs

- Transaction to an FI is what an order is to a manufacturer - Assured transfer of value from one party to another is the reason we exist
- Because transfer of value is effected by transfer of data, technology applies naturally. FIs recognized this early and were among first industry to automate
- FIs have been e-commerce participants since 1950s, but over private networks - Payments, Card Associations, Clearing Houses, Inter-bank Settlement
- Electronic Exchange of Information and Instructions with customers since mid-1980s
- **Good News** - FIs have profited from early efficiencies. **Bad News** - Established FIs have antiquated systems and procedures

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Typical - Point-to-Point Channel Architecture



- Grown up over time
- Each channel has its own connection scheme
- No re-use
- Specialist Teams

Characteristics:

- Difficult to Change
- Tough to Manage and Control
- High People Utilization
- Multiple Signons
- Redundant Data and Process

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So, FIs find themselves with increasing pressure to build state-of-the-art applications, quickly, and their architecture is holding them back...

What do they do about it?

3 Pronged Strategy

- ▶ Treat Existing Applications as Reusable Components
 - Enterprise Application Integration
- ▶ Ensure Everything New is Naturally Reusable
 - Component Models most likely choice
- ▶ Standardize on a Service-Based Infrastructure
AKA Reference Architecture

Reference Architecture - Definition

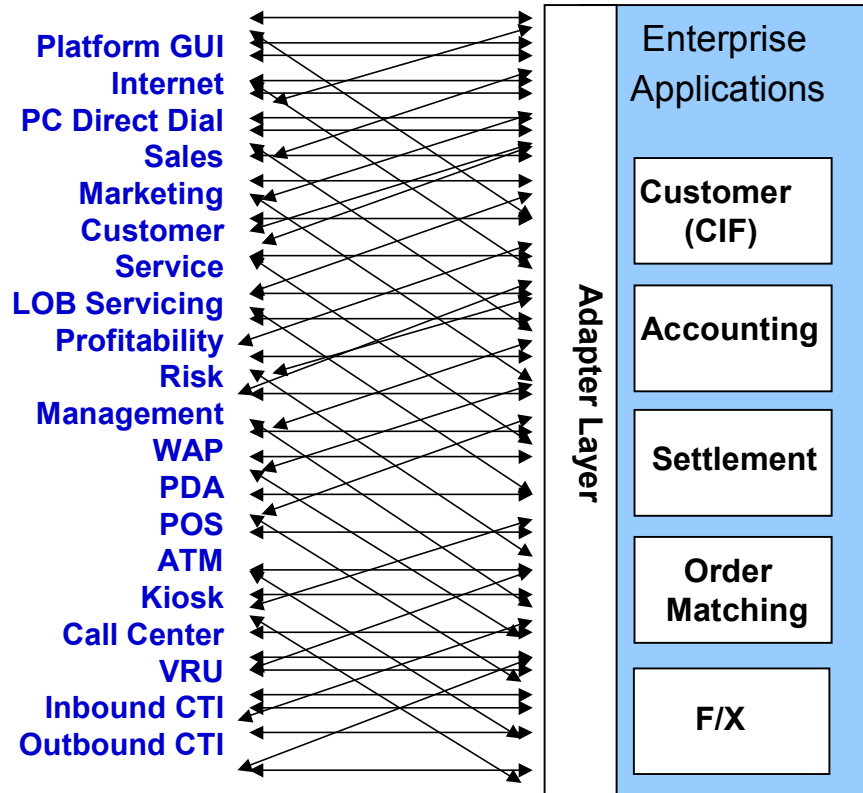
"A set of infrastructural and application components that supply any function that should or could be reused for multiple applications within a Financial Institutions' Enterprise."

Example - Loan Approval

Once automated the FI should be able to accept loan applications and report status from Branch, Telephone, Internet, Sales Laptop, WAP, PDA, Kiosk, et cetera

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If we start with this...



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And we apply this...

Customer and Partner Applications

**MQSeries
Workflow**

WS Commerce Suite

Lotus Collaboration

**WS
Business
Integrator**

Application Accelerators

Development

WS Homepage Builder
WS Studio
VisualAge for Java
Versata Studio
WS Business Components
VisualAge Generator

Presentation

WS Transcoding Publisher
WS Everyplace Suite
WS Voice Server
WS Translation Server
WS Personalization
WS Portal Server
Web Content Management

Deployment

WS Edge Server
WS Site Analyzer
Tivoli Policy Director

Integration

MQSeries Integrator
MQ Adapter Offering
Host Integration

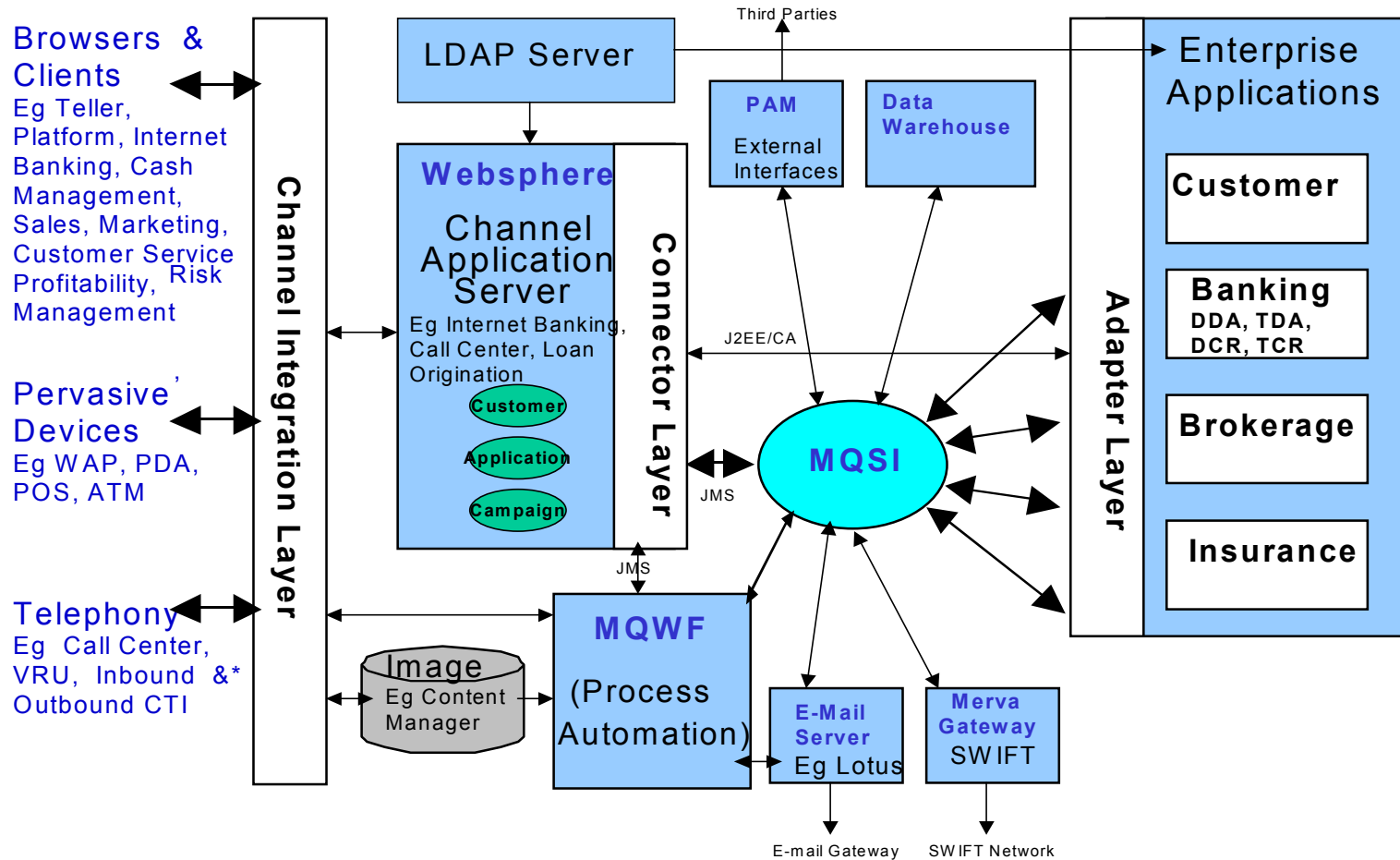
Foundation Extensions

**WebSphere Application Server, MQSeries
Cross-Platform Foundation**

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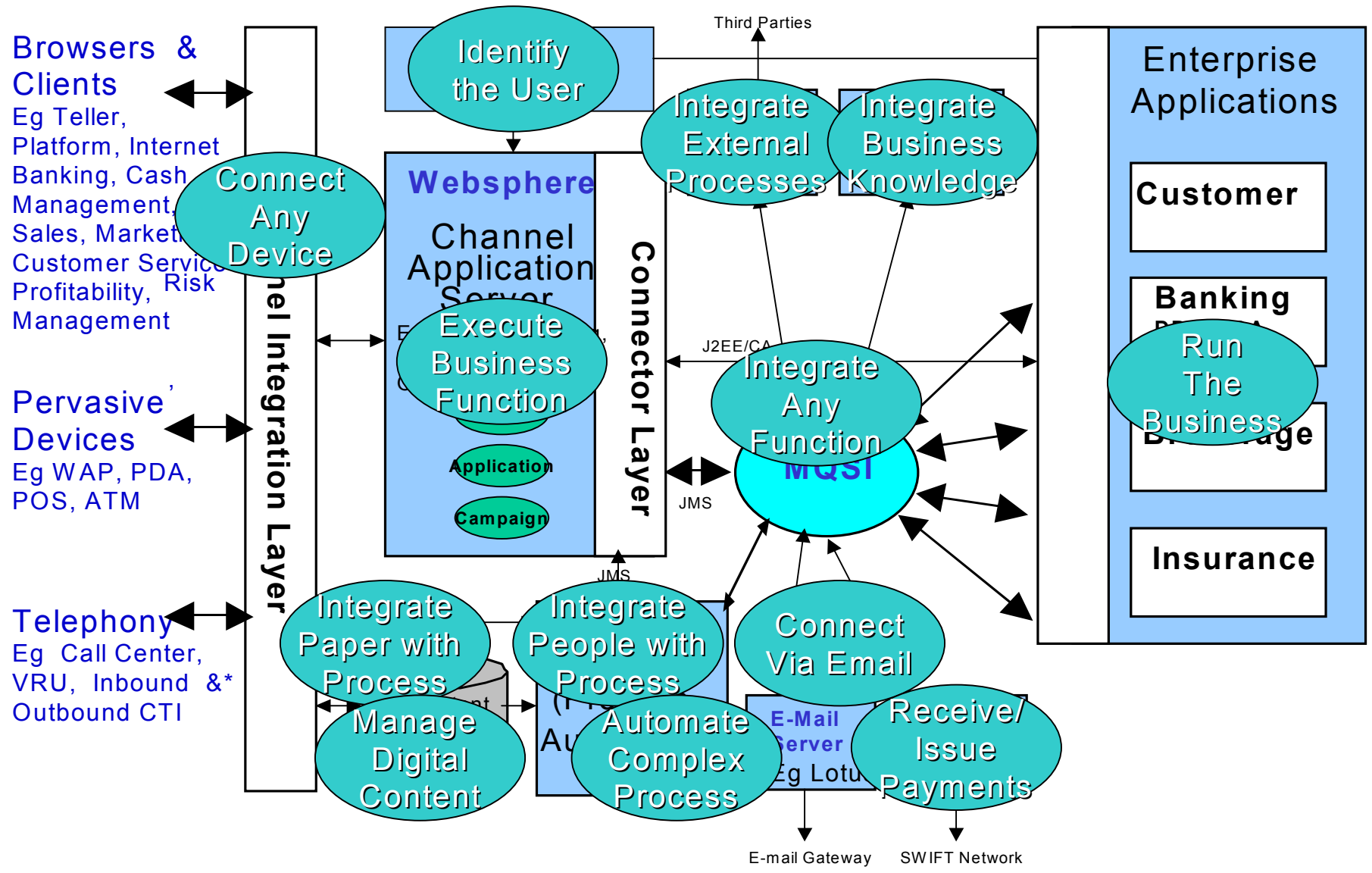
Then we should end up with something like this:



An end-end infrastructural solution based on open standards that delivers an architecture that supports complete enterprise-wide re-usability of application and infrastructure function.

- Topics
- Value Proposition
- Industry Trends
- Reference Architecture
- Industry Solutions

RA is a Service Based Architecture



What you are likely to hear...

"A Reference Architecture is a great idea, but it takes time and delivers no immediate business benefit..."

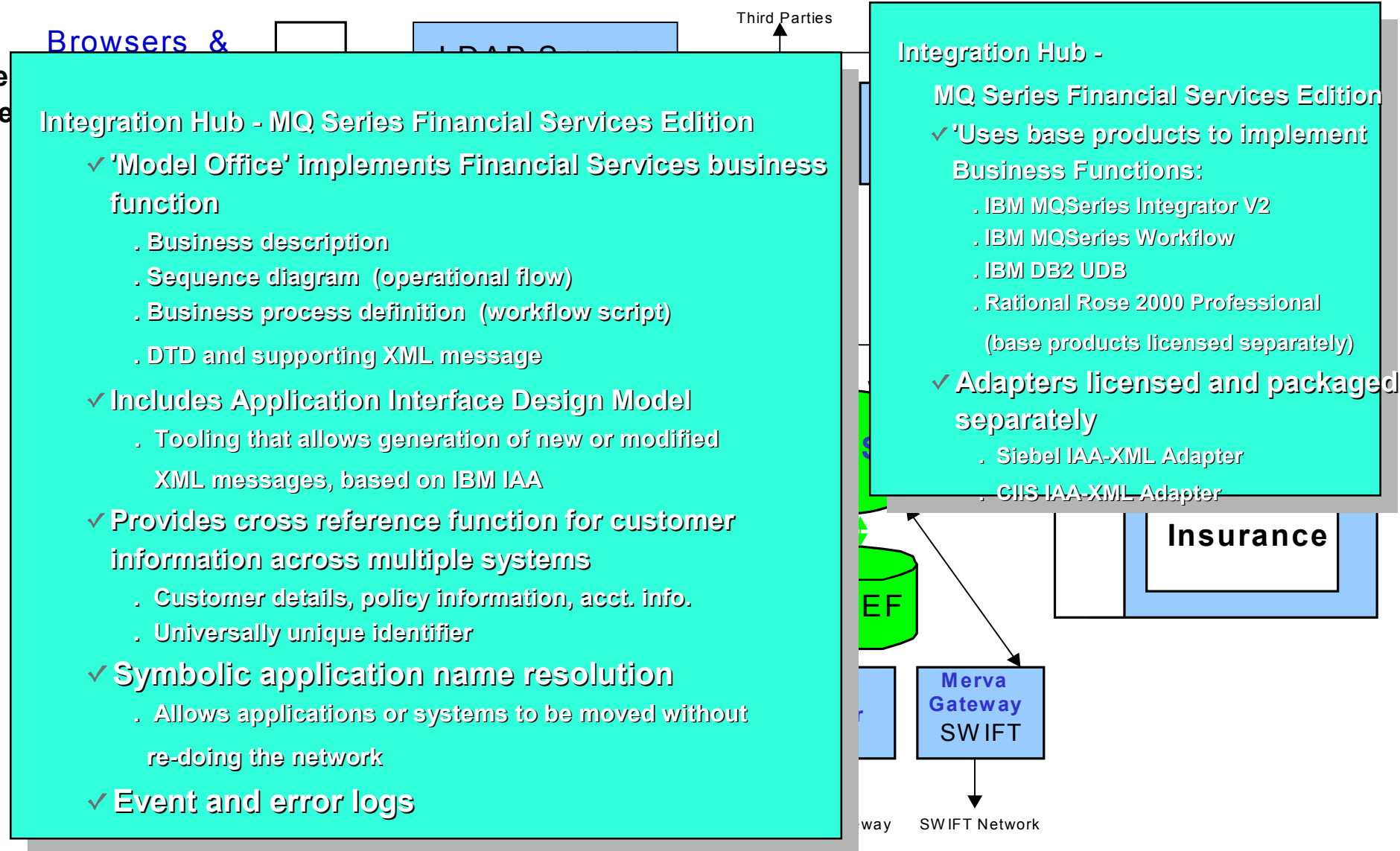
"The first project has to absorb cost/effort of building the infrastructure..."

How can we speed this up, i.e.
implement strategy in the face of tactics?

Answer:

MQ Series Financial Services Edition

RA is a Service Based Architecture



Industry Solutions

- What is a solution?

"A collection of hardware, software, and services that deliver business capability."

- Developed by the Financial Services Sector
- Designed as a set of components, which can be mixed to support specific set of customer requirements
- Worldwide - Different geographies might develop different approach for a given solution depending on local market demands

Industry Solutions

- **Customer Loyalty**
- **Branch Renewal**
- **Banking Online**
- **Straight-Through-Processing**
- **Core Banking**
- **Exchanges and Electronic Markets**
- **Online Trading and Wealth Management**
- **Risk Management Online**
- **Claims**
- **Insurance Sales and Service**

ABC Bank's Business Strategy via eBS

1. "5 Products per household by 2005."

- Know our Customers (Existing and Prospects)
- Targetted Campaigns
- e-Mail Marketing
- Cross-sell at every touchpoint

2. Cut Attrition by Improving Customer Service

- Increase Call Center Throughput
- 360 degree View of Customer at the branches
- Modernize Teller Line

3. Catch the Competition

- Upgrade Internet Banking - Online Trading and Bill Pay

Customer Loyalty

Customer Loyalty

Customer Loyalty

Customer Loyalty

Branch Renewal

Branch Renewal

Banking Online

Solution #1 - Customer Loyalty

■ Deliver Capabilities

- ▶ Universally available 360 degree view of customer
- ▶ Offer the right product at the right time
- ▶ Personalized interaction based on knowledge of customer
- ▶ Improve service quality
- ▶ Ensure continuous sales and service dialogue across time and channels based on shared contact history

■ Core Components

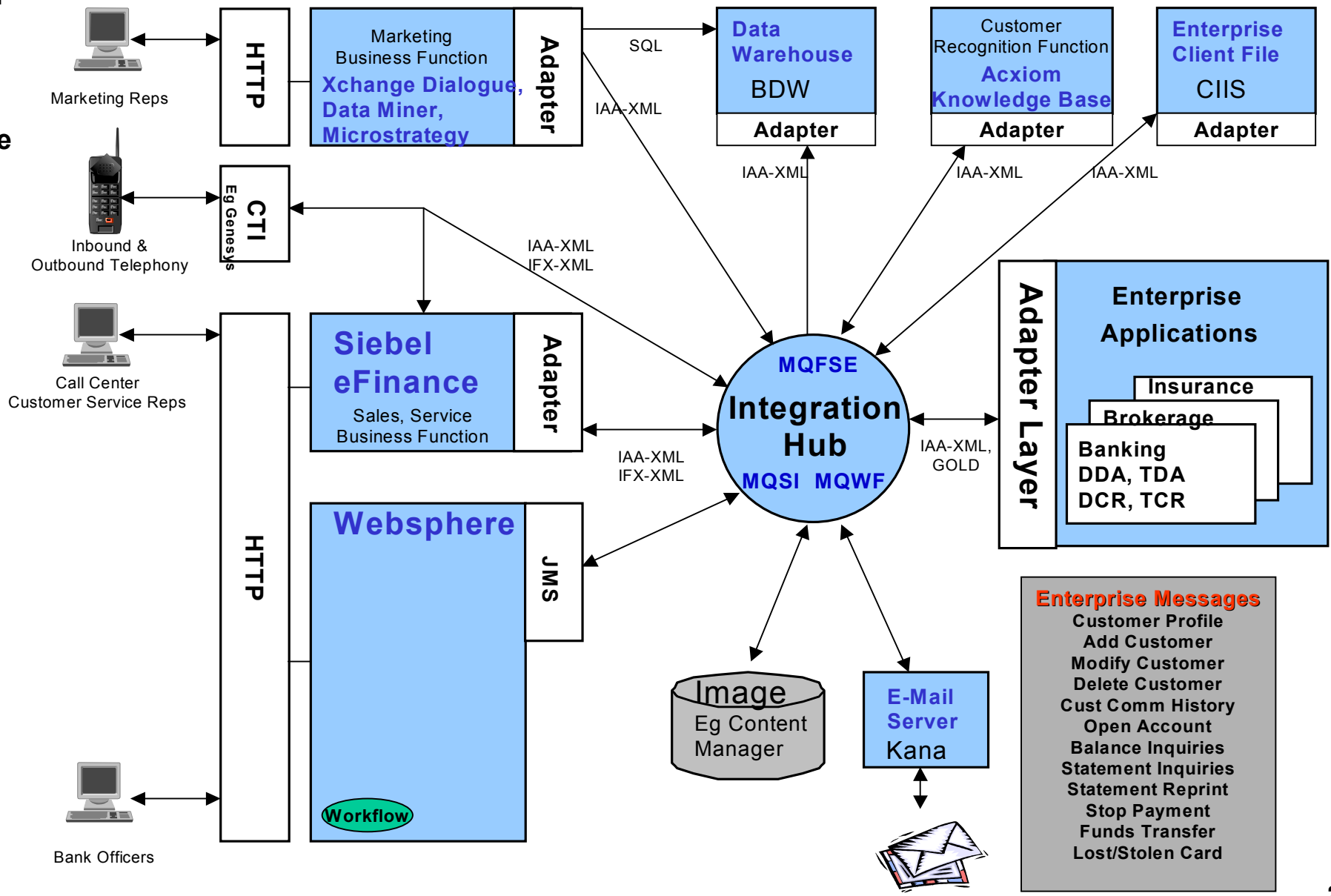
- ▶ Enterprise Customer File
- ▶ Sales and Service Applications
- ▶ Warehousing and Analytics
- ▶ Campaign Development and Execution

■ ISV Applications

- ▶ Siebel e-Finance, Xchange Dialogue, Kana Connect, Acxiom Knowledge Base, EzMart Data Warehouse, Genesys
- ▶ IBM (CIIS)

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Solution #1 - Customer Loyalty



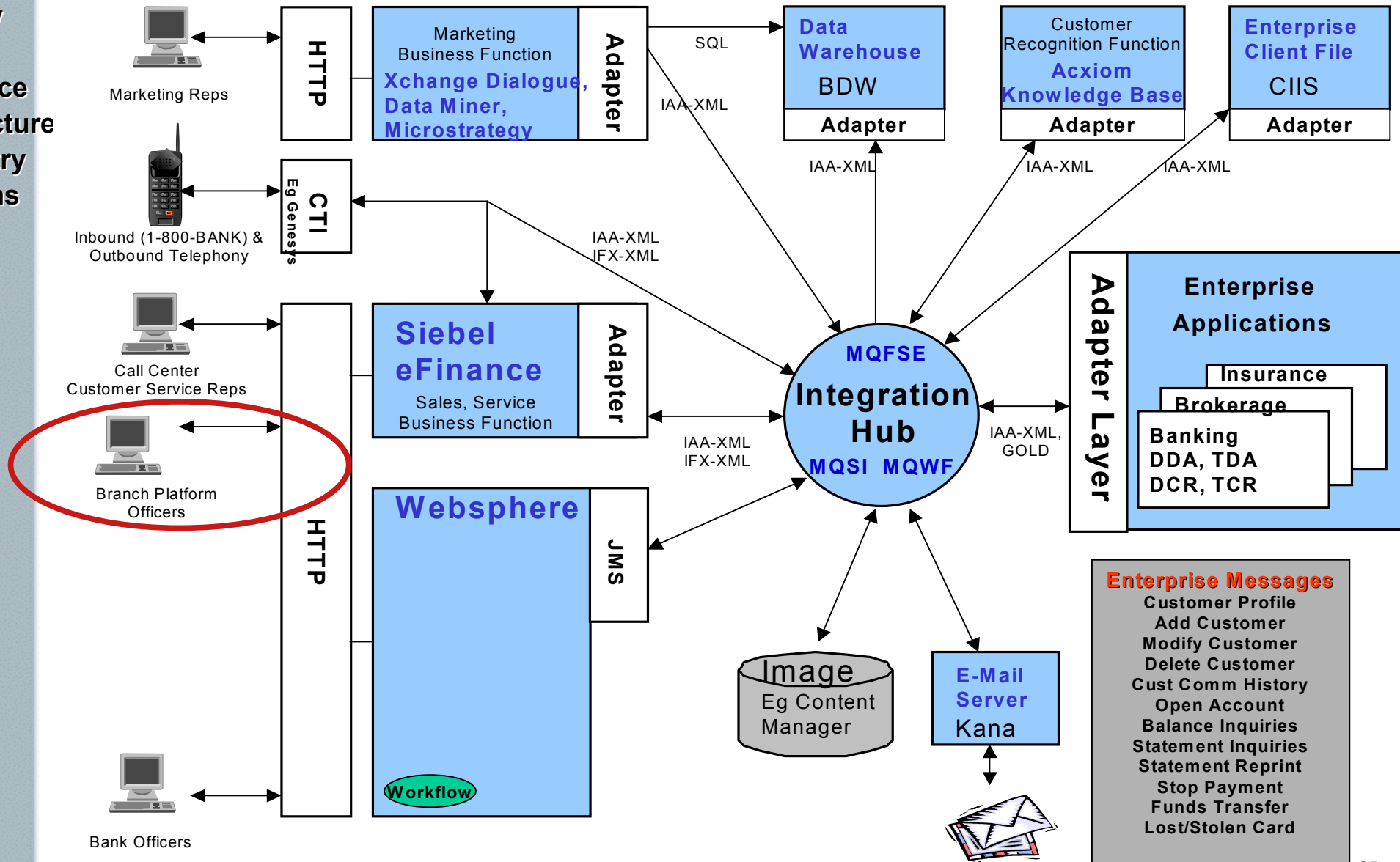
Solution #2 - Branch Renewal

- **Supports FI's need to offer more services at the branches with lower overhead, eg add banking to a Brokerage Branch and vice versa**
- **Move to thin client**
- **Improve SLA and Stand-in Capabilities**
- **Major Components are user interfaces and infrastructure. Platform and Teller applications**
- **ISVs - Siebel, IBM (Websphere Bank Teller Components)**



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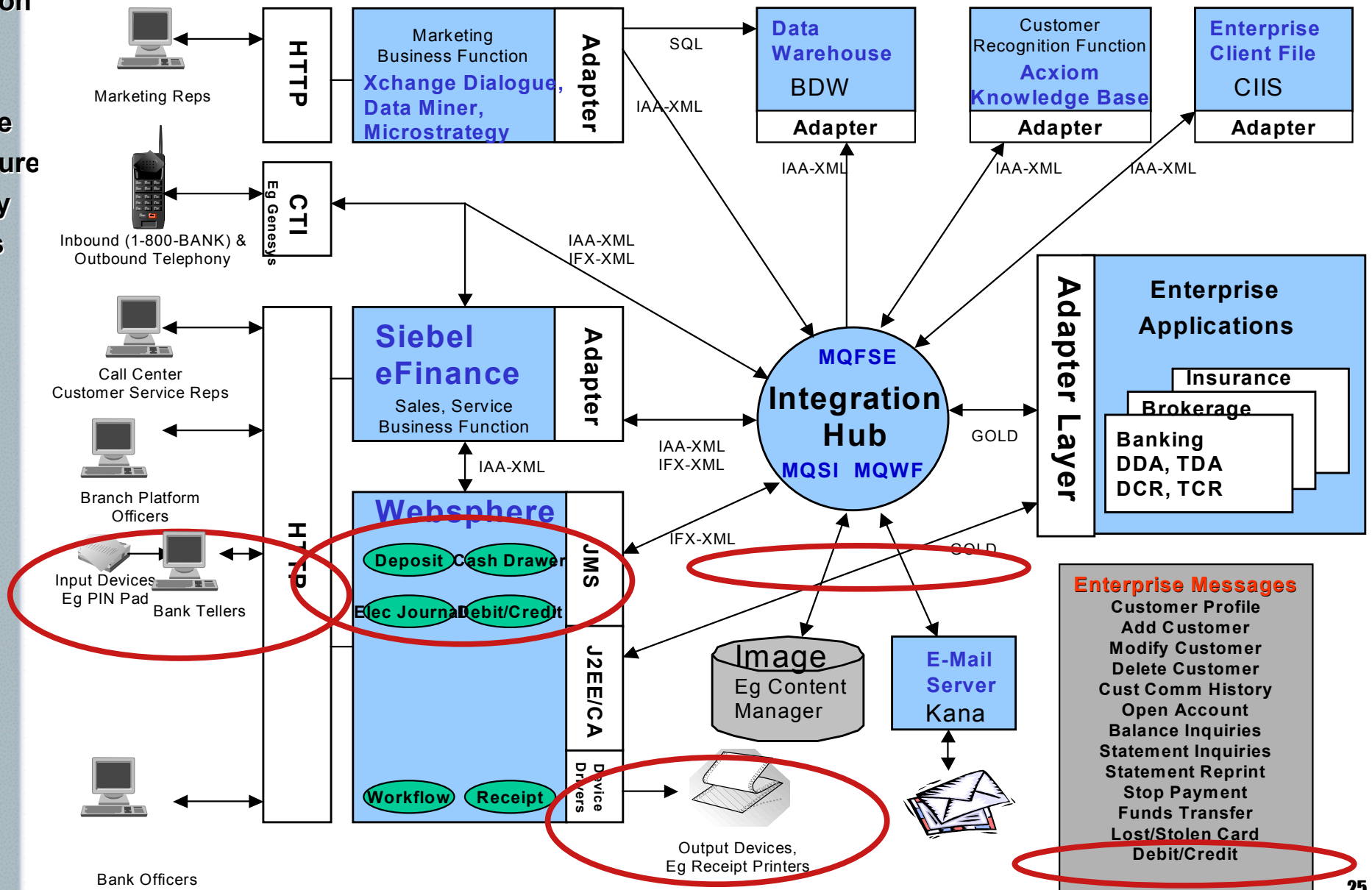
Solution #2 - Branch Renewal Phase 1





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Solution #2 - Branch Renewal Phase 2

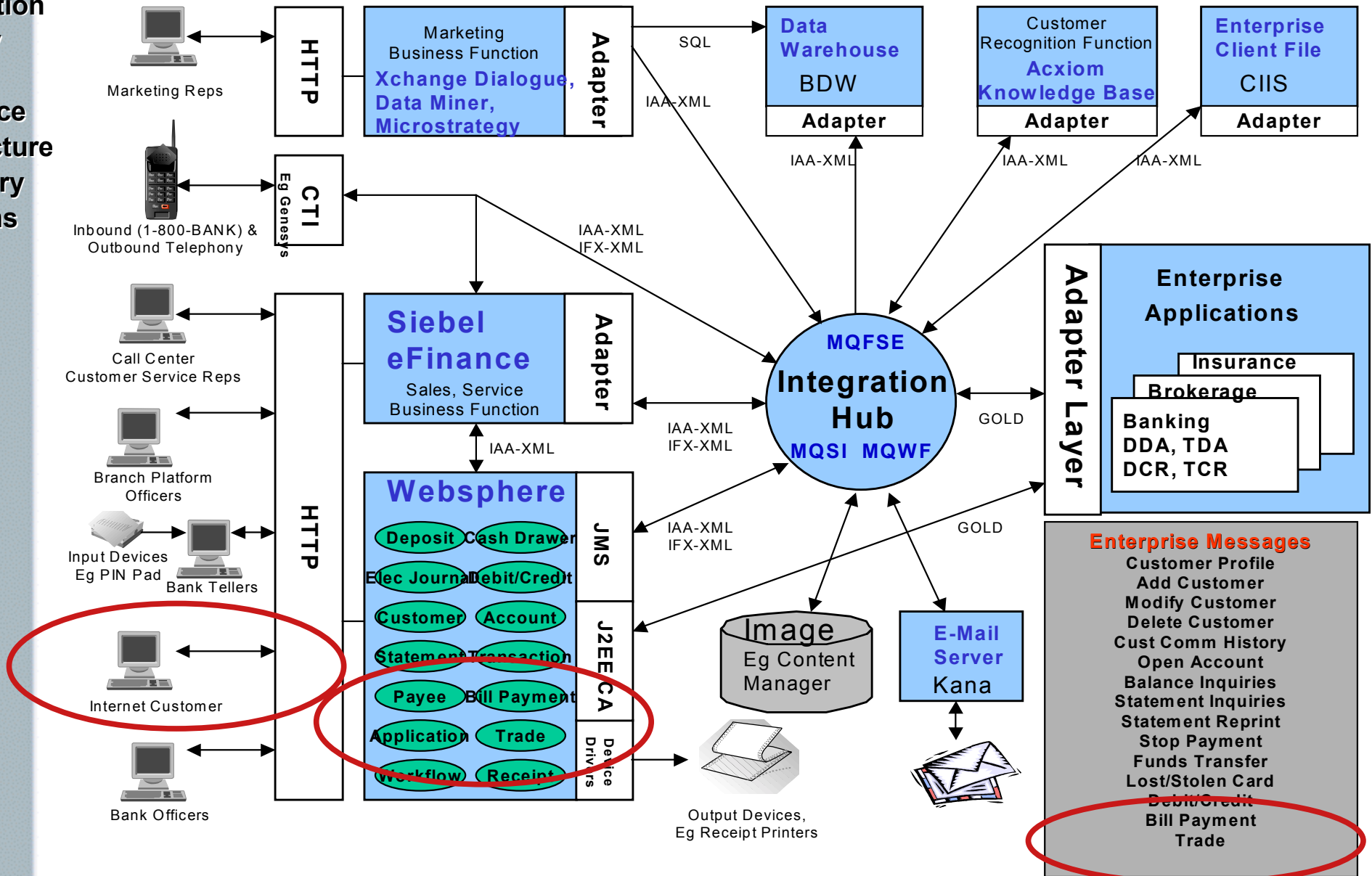


Solution #3 - Banking Online

- **Any application of online technologies to deliver Financial Services**
- **Internet Banking, Wireless Payments, Corporate Cash Management, Electronic Bill Payment and Presentment, Online Trading, etc**
- **Major Components - Web and/or Wireless Infrastructure, Component based applications, EAI**
- **Call Center or Customer Service upgrades likely accompanymnt - e-mail and 24X7X52**
- **ISVs - Financial Fusion, S1**

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2. Cut Attrition by Improving Customer Service
 - Increase Call Center Throughput
 - 360 degree View of Customer at the branches
 - Modernize Teller Line
3. Catch the Competition
 - Upgrade Internet Banking - Online Trading & EBPP
4. Pass the Competition
 - Private Banking Portal
5. Improve Operating Efficiency
 - Achieve T+1 Settlement

Customer Loyalty

Branch Renewal

Banking Online

Wealth Management

**Straight-Through
Processing**

While delivering on our Value Proposition - *our software products form an end-end infrastructural solution based on open standards that, when implemented, delivers an architecture that supports complete enterprise-wide re-usability of application and infrastructure function.*

More Information:

- **AIM Software**

- ▶ w3.ibm.com/software/sales/ti/tisites.nsf

- **Financial Services Sector**

- ▶ w3.ibm.com/industries/financialservices/finsect.nsf

- **Industry Solutions (Including MQFSE)**

- ▶ w3.ibm.com/industries/financialservices/finsect.nsf/ebusinessSol

- **ISVs**

- ▶ [See individual ISV Websites](#)

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Reuse is all about Architecture

- Customers respond well to industry specific, solution oriented views of our products
- Solutions are applications - they require ISVs, usually several
- We must demonstrate to customers in the Sales Cycle how we will help them achieve reuse - not just integration !!!
- We need to continue to work with our ISV partners to influence application and intrastructural reuse among them at solution level
- Progress our collateral from Marketecture to Architecture