IBM SOA Executive Summit

Solve business problems
faster through composite applications

Michael Liebow, **Global SOA & Web Services Leader**

Courtney Spooner, **SOA Management & Services Specialist**

John Baker, **Wireless Service Area Leader**

SOA on your terms and our expertise

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SOA hype is a global phenomena

"IBM is a leader of SOA. We are delighted to introduce the new concept SOA to you.

The business is growing but the IT does not serve the business needs, what should we do?

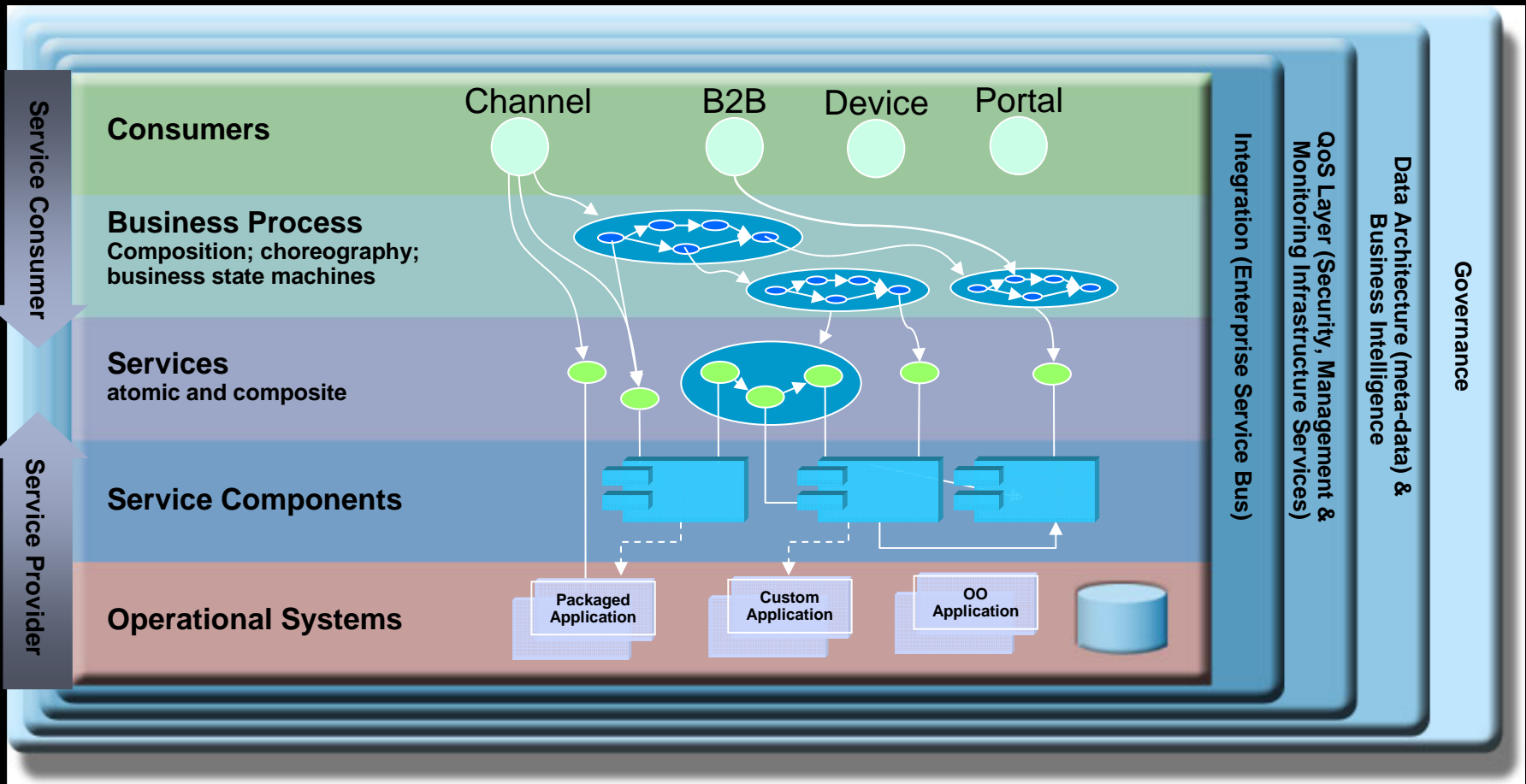***SOA is an answer.*** *With the new approach, SOA can link all things/services together and help your business flexible.*

We are with you for your SOA success."

SOA Live! in Bangkok 2006, March 16, 2006, Napalai Ballroom, Dusit Thani Hotel, Bangkok

The barrier to business flexibility

The answer to business flexibility

Service Consumer

Service Provider

Consumers

Channel   B2B   Device   Portal

Business Process
Composition; choreography;
business state machines

Services
atomic and composite

Service Components

Operational Systems

Packaged Application

Custom Application

OO Application

Integration (Enterprise Service Bus)

QoS Layer (Security, Management & Monitoring Infrastructure Services)

Data Architecture (meta-data) & Business Intelligence

Governance

Atomic Service   Composite Service   Registry

Source: SOA Community of Practice, SOA Solution Stack Project

SOA on your terms and our expertise

SOA and Web services cross-industry adoption

Industry Sector	Business Processes
Communications	Order fulfillment, network management, billing and collection
Financial Services	Claims processing, back-office banking, straight-through processing
Distribution	Inventory allocation and replenishment, logistics, distribution
Public	Tax/revenue management, clinical data management, drug development
Industrial	Import/export management, service after sale, buy & sell side supply chain

Source: IBM Market Assessment Panel

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Example: the Car Rental and Reservation process decomposes into components and processes

[Rent a Vehicle]

Level 1 Business Process

Reserve Vehicle → *Check-out Vehicle* → *Check-in Vehicle*

Fleet Management

Rent Vehicle

Vehicle Availability

Location Information

Reserve Vehicle

Check-In Vehicle

Rentals & Reservations

Check Rates

Check-Out Vehicle

Customer Profile

Location Promotions

Customer Service

Promotions Management

Marketing & Customer Management

Pricing

Products

● Offered Service

Consumed Service

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A Service Model provides a prescriptive approach to decompose a process and create a service hierarchy

- **Rental**
  - 1.2 Check-out Vehicle
  - 1.3 Check-in Vehicle
  - 1.2.3 Create Rental Agreement
  - 1.2.4 Sign-out Vehicle from Lot
  - 1.3.1 Locate Rental Agreement
  - 1.3.2 Process Return Information
  - 1.3.4 Return Vehicle to Lot

- **Payment Processing** (NEW Functional Area)
  - 1.3.3 Process Payment

- **Reservation**
  - 1.1 Reserve Vehicle
  - 1.1.1 Check rates
  - 1.1.2 Make Reservation
  - 1.2.1 Locate Reservation
  - 1.2.2 Modify Reservation
  - 1.1.1.1 Get Location (pick-up/drop-off)
  - 1.1.1.2 Get Date/time (pick-up/drop-off)
  - 1.1.1.3 Choose Vehicle
  - 1.1.1.4 Get Options Information
  - 1.1.1.5 Check vehicle Availability
  - 1.1.1.6 Offer Rates for Selection
  - 1.1.2.1 Confirm Rental Information
  - 1.1.2.2 Get Customer Information
  - 1.1.2.3 Get Payment Information
  - 1.1.2.4 Confirm Reservation
  - 1.1.2.5 Create Reservation

Reserving a **rental car**

just got **FASTER EASIER** and more **EFFICIENT.**

"With SOMA, IBM has nailed this one. We're quite impressed with the clarity and detail of SOMA... Customers should find IBM's SOA leadership to be relatively straightforward and understandable."

-Jason Bloomberg
Zapthink

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The Service Model must align to the Business Objectives

Business Goal:

- Increase Revenue by 20%
  - Introduce New Products
  - Introduce New Channels
  - **Increase Revenue per transaction**

During specification SOMA uses multiple techniques to select services for exposure, and to specify those services and enterprise components they depend on

- *Up-sell higher class vehicle*
  - Understand Customer Profile
  - Determine types of Up-sell vehicles
  - Check vehicle availability
  - Cross-sell additional options
  - Purchase options individually
  - Purchase option packages

- *Cross-sell Partner services*
  - Reserve Hotel rooms
  - Reserve Airline tickets
  - Book destination attractions
  - Sell Navigation equipment post-rental

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The IRS created a Service Model for e-filing returns

External Services

- **Transmitter Services**
  - Send Submissions
  - Get New Acknowledgements
  - + Get Acknowledgement
  - + Get Acknowledgements
  - * Get New Submissions Status
  - * Get Submission Status
  - * Get Submissions Status

- **State Services**
  - + Get New Submissions
  - + Get Submission
  - + Get Submissions
  - + Send Submission Receipts
  - + Send Acknowledgements
  - * Get New Acknowledgement Notifications
  - * Get Acknowledgement Notification
  - * Get Acknowledgement Notifications

Internal Services

- **EMS (Electronic Management System) Services**
  - EMS Send Submissions

- **IFA Services**
  - IFA Send Submissions
  - + IFA Get New Acknowledgements
  - + IFA Get Acknowledgement
  - + IFA Get Acknowledgements

- **MeF Processing Services**
  - Process IRS Submission
  - EMS Process IRS Submission
  - + EMS Process Acknowledgement
  - + Process State Submission

Technique used in discovery:
–Bottom-up analysis
–Top-down analysis
–Goal-Service analysis

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… driving new innovation for an old institution

- **Congressional mandate:** 80% of transactions need to be electronic by 2007

- **Need to move large, complex, legacy environment** while reducing operating costs and providing improved flexibility

- Created robust, scalable service-oriented system that **links external trading partners with new e-file applications** and legacy systems

- **Error rates reduced from 25% to 6%** associated with manual adjustments to transmitted data

- Employee **productivity increased** through online availability of submission data

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Composite applications created, deployed, and updated faster with SOA portlets

"Through 2007, an enterprise portal will be the first major application of SOA concepts for more than 50 percent of enterprises (0.6 probability)."

Gene Phifer, Gartner Research; Management Update: A Portal May Be Your First Step to Leverage SOA -Publication Date: 10/12/05

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Insurance Business Process Hairball
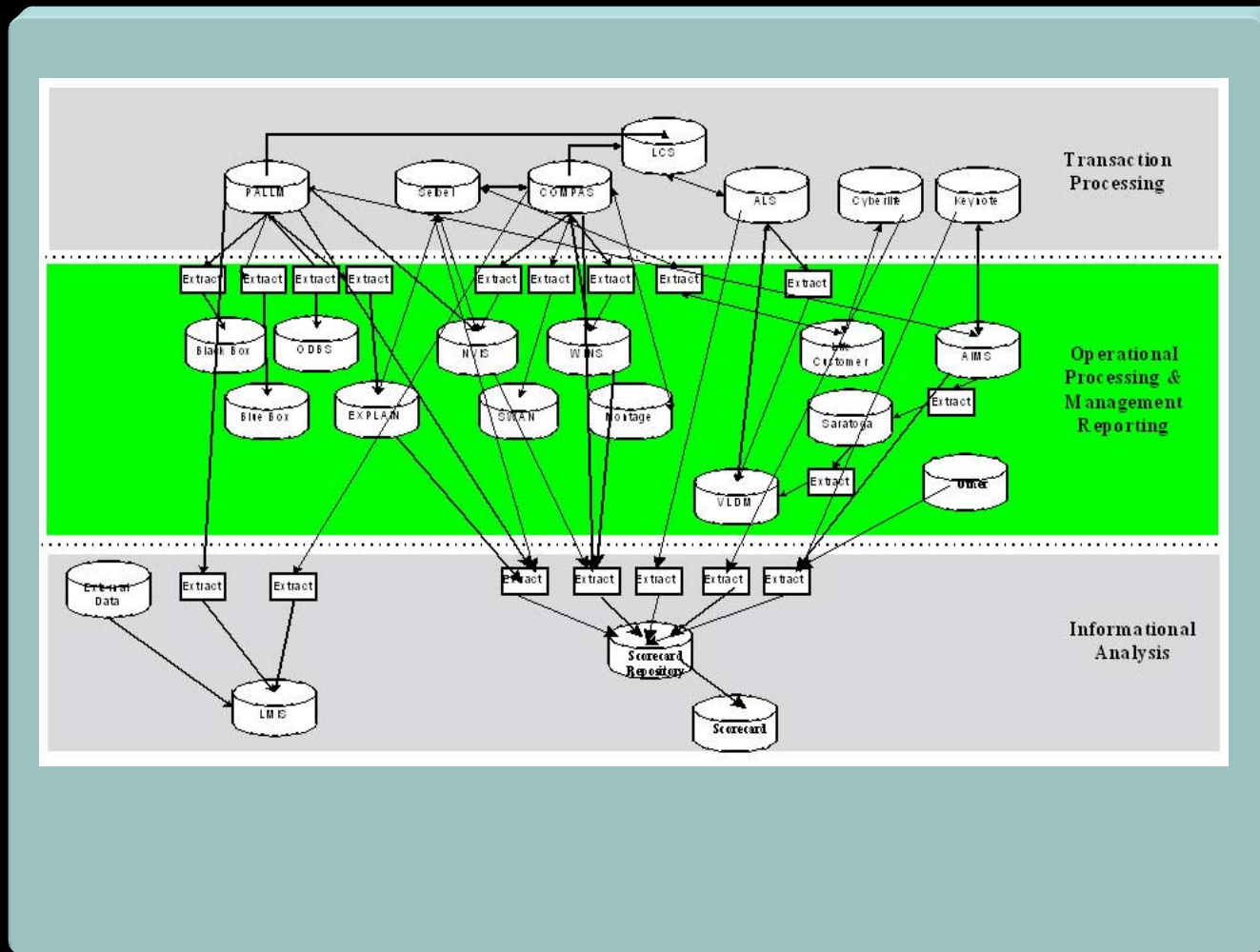
Business Dashboard Solution Architecture

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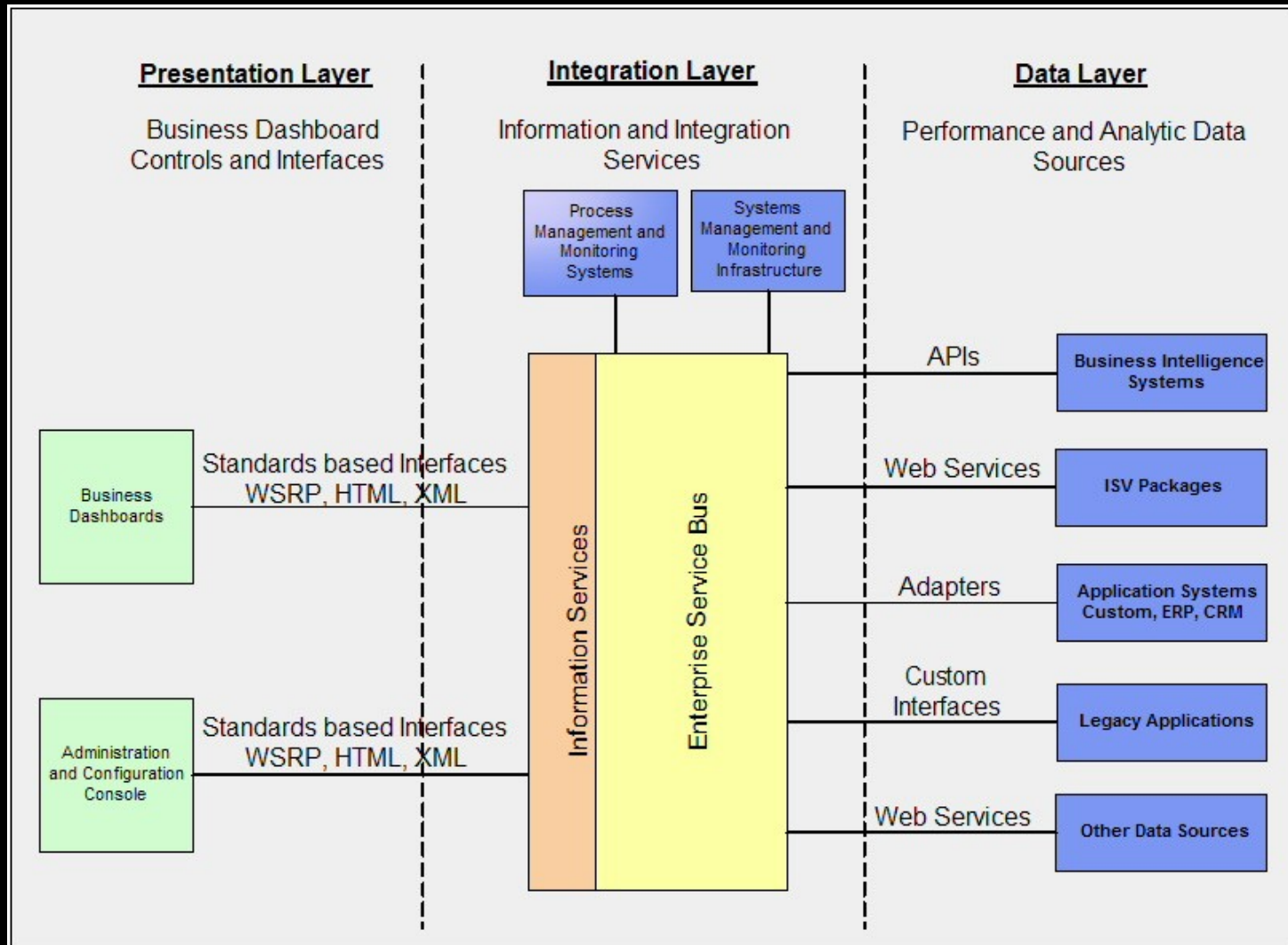
Insurance Property & Casualty Business Dashboard
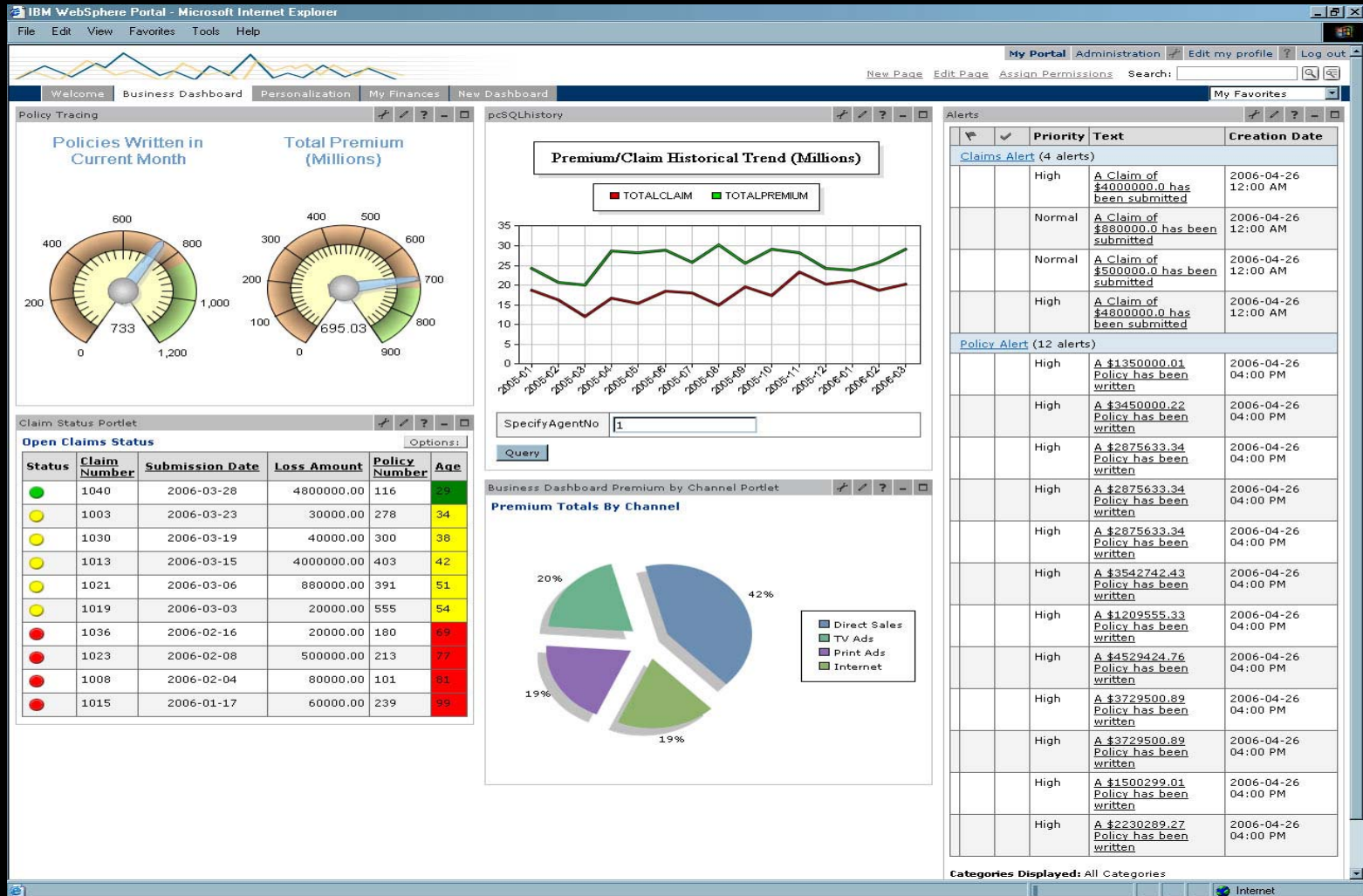
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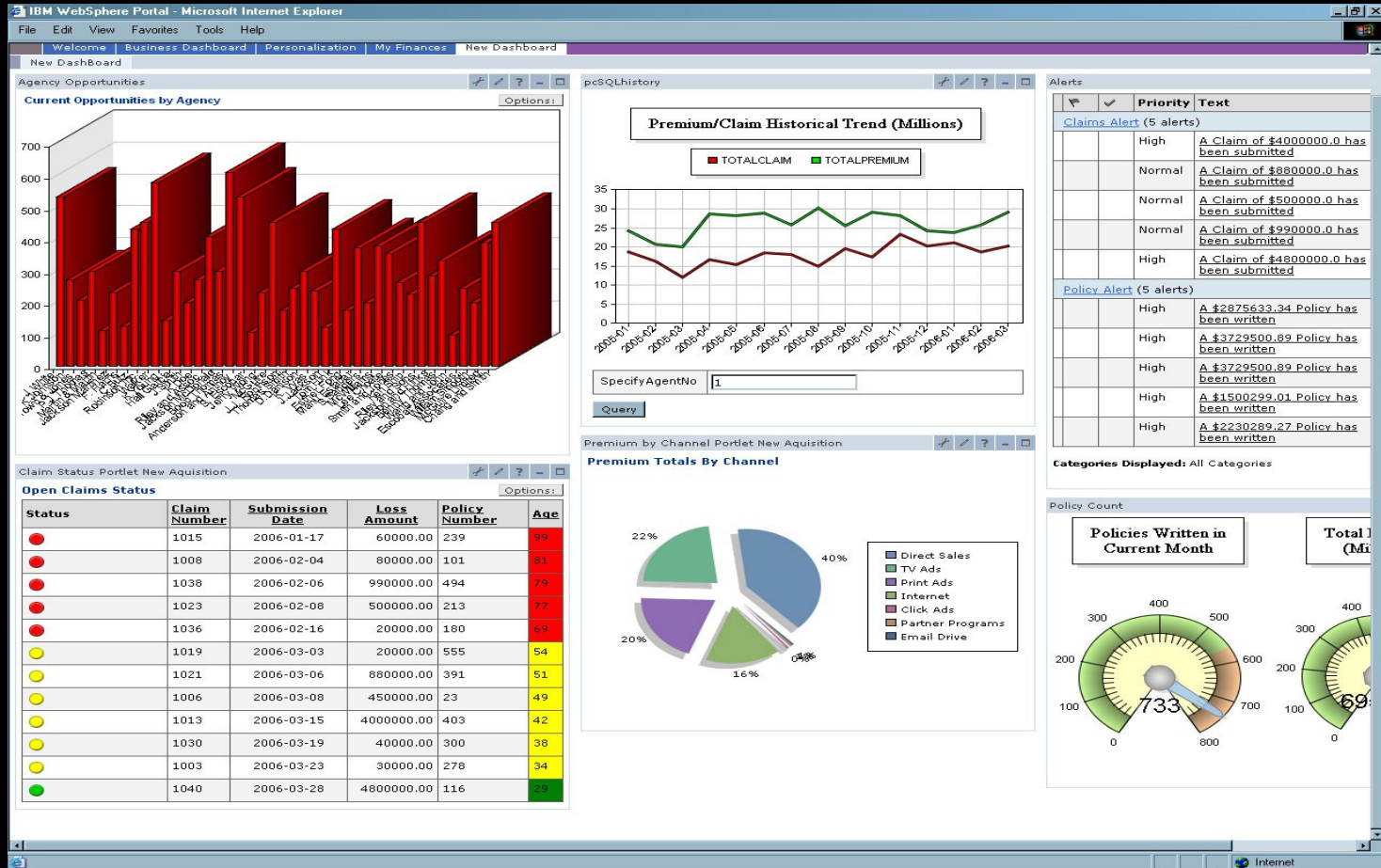
Composite applications created, deployed, and updated through devices

"Because enterprise mobility is increasingly about business strategy automation and execution, it's critical that organizations become fast and efficient at instantiating the business process itself – in application code, data and workflow supported by monitoring and analytic tools"

Source: Stephen D. Drake & Mary Wardley - IDC September 2005

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Airline Business Process Hairball
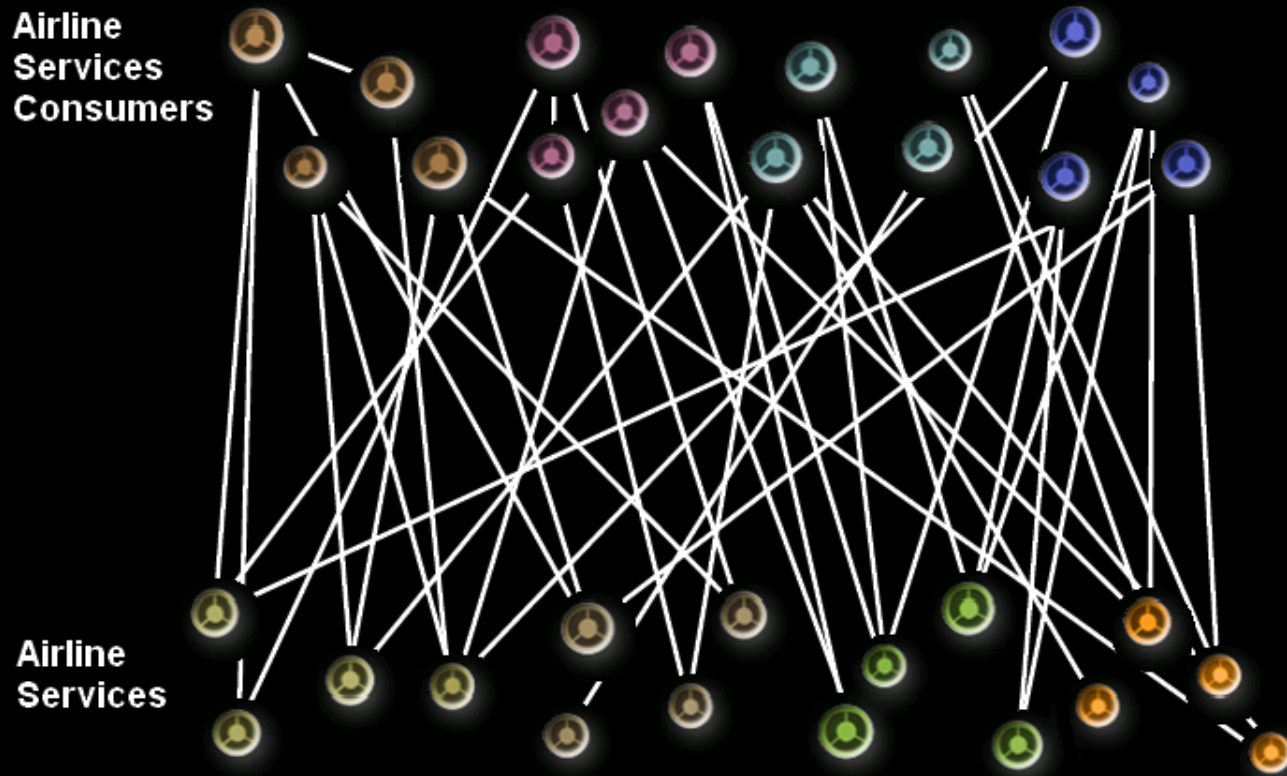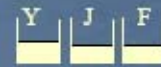
Airline Alert Demonstration

We can work with you to define the right approach

What We Know:
- Potential for value to be realized adopting SOA
- Ready to take first steps
- Strong interest from your team

What needs to get done:
- Clearly define the business problem
- Extract a value statement
- Define an initial solution strategy
- Propose specific action
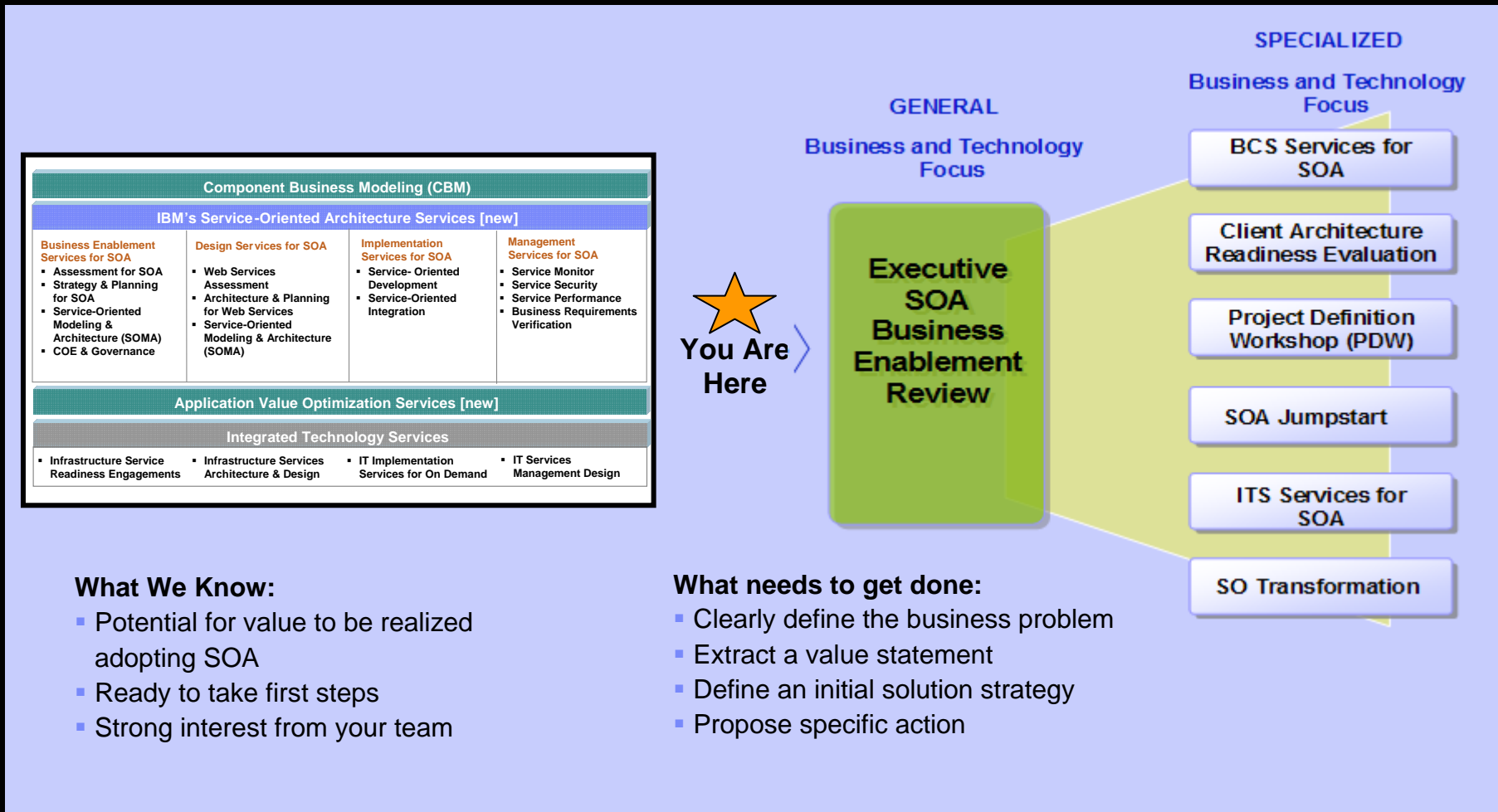
Questions and Answers

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