



iSOA Group - LabCorp

# Building an SOA Infrastructure

# Agenda

Section **1**

**Introductions**

Section **2**

**The Accidental Architecture**

Section **3**

**The Long Road ahead – and associated pitfalls**

Section **4**

**The Progression**

# Introductions

## ▶ The iSOA Group

- 25 employees (High skilled Architects-SWITA's)
- Focus on IBM SOA and supporting WebSphere Products
- Offices in San Francisco, Boston
- DataPower SOA Appliance, WebSphere ESB, WebSphere Advanced ESB (Message Broker), WebSphere Process Server, Partner Gateway, WebSphere & WBI Adapters, WebSphere Portal
- 100 % owned by Commerce Solutions

## ▶ Motivation

- Professional and personal reasons to excel in Healthcare
- Motivated by complex integration challenges
- Understands the challenges, pitfalls of large integration projects

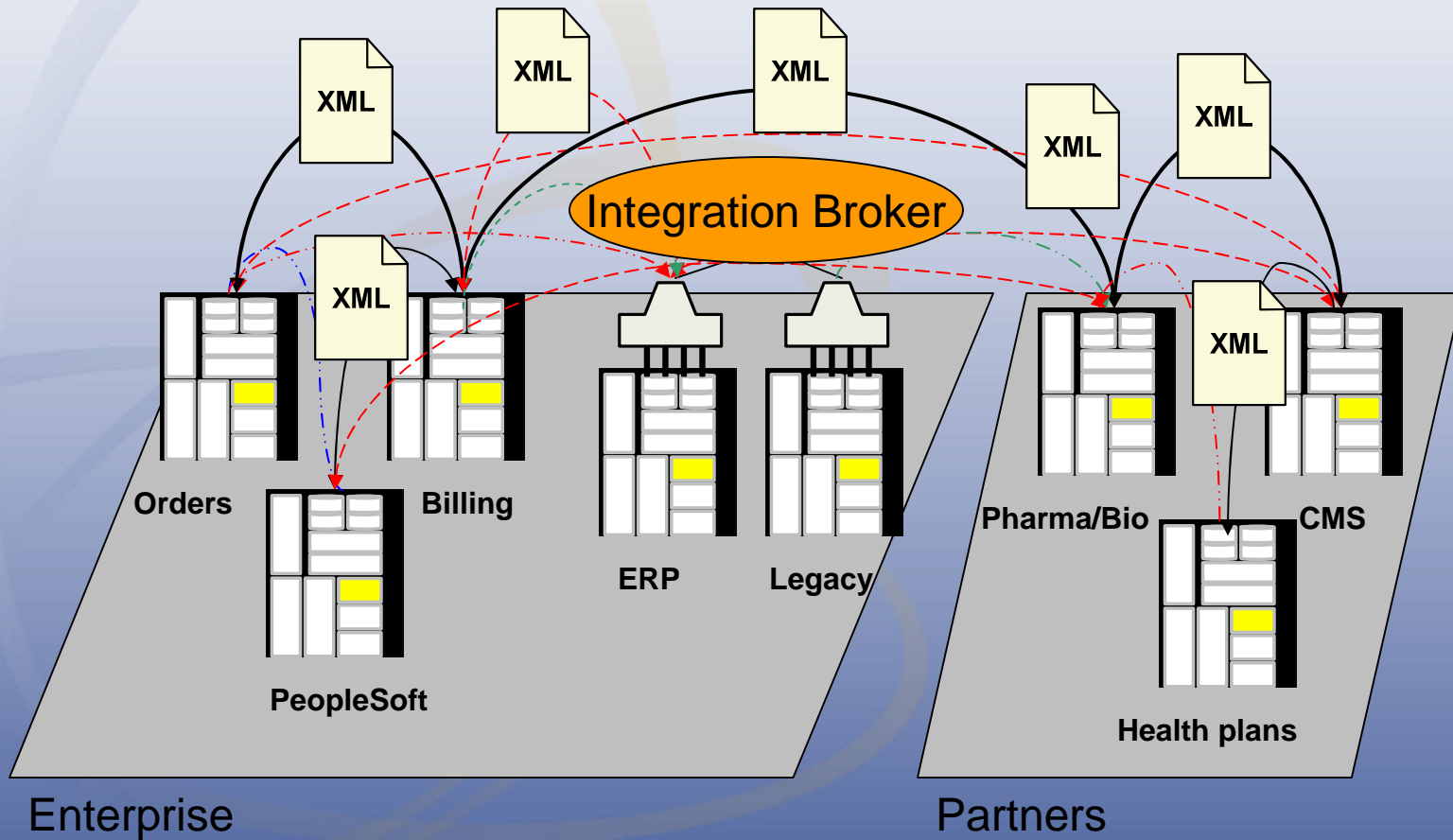
# Problems

- ▶ Many technologies blended
  - EAI brokers – but at a department level
  - FTP – not real time
  - RPC/Stored procedure - hardwired
  - Direct Socket – un-pliable to changes
- ▶ Potential issues with retrofitting
- ▶ Development teams in silos
  - Adds costly resources to maintain systems

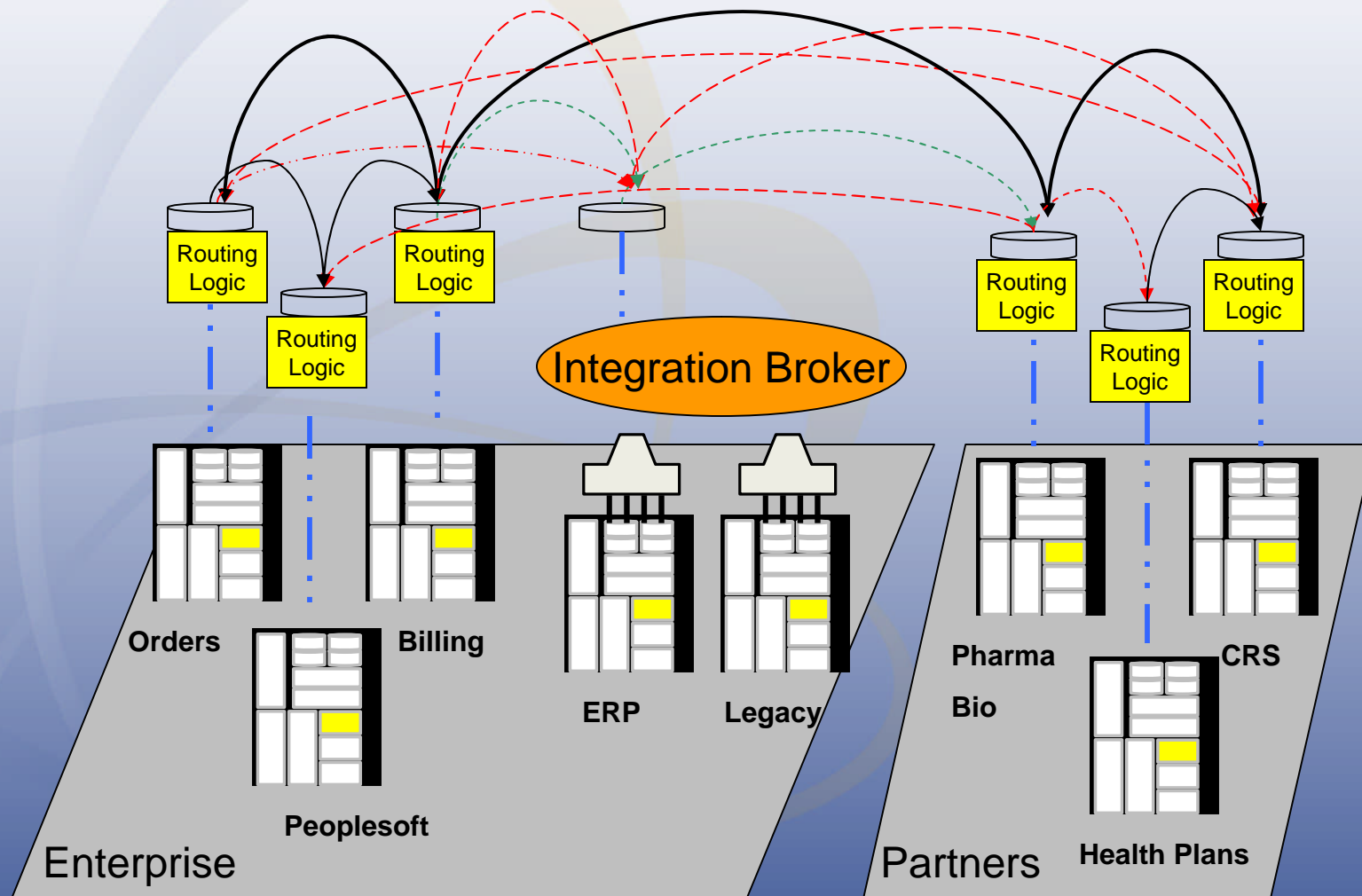
# Approaching SOA

- ▶ Leverage Best Practices from EAI to SOA
  - Leave and Layer approach
- ▶ Standardize on XML
- ▶ Embrace Web Services and SOA
  - SOAP
  - WSDL
  - XML
- ▶ Refactor to use DataPower as ESB

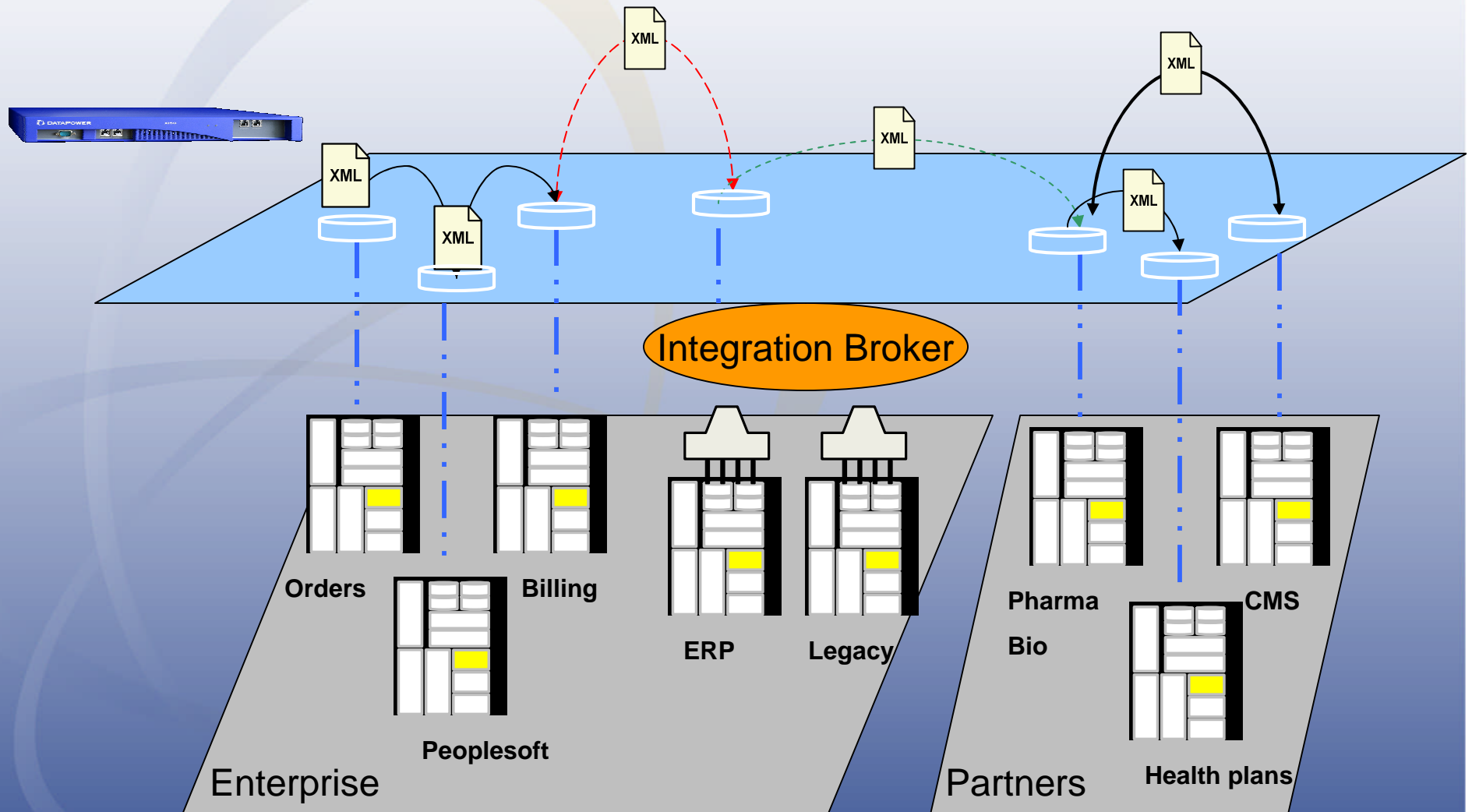
# Standardize on XML



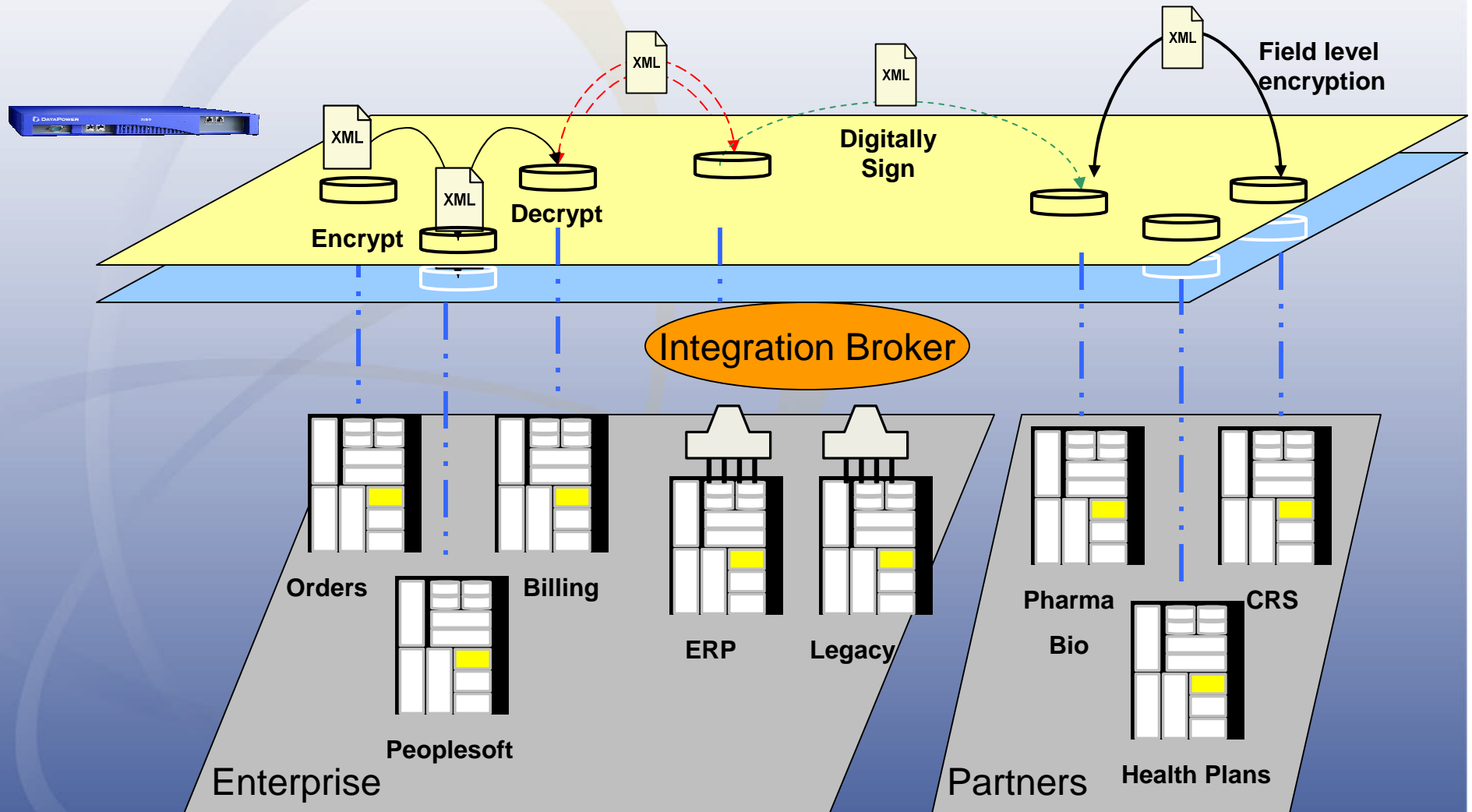
# Separate Routing Logic with SOA/ESB



# Implement DataPower as ESB Pipeline



# Utilize DataPower to secure the Pipeline



## Benefits with our solution approach

- ▶ Infrastructure upgrade
  - Fits into any network
    - Vendor agnostic
- ▶ Hardens (secures) web services
  - Reduces cost of developers adding security
  - Provides a single point of maintenance for security
  - In alignment with corporate governance (SOX)
- ▶ Improves SOA pipeline performance
  - Often 70 times faster
- ▶ ROI achieved sooner.

## Benefits with our solution approach (cont.)

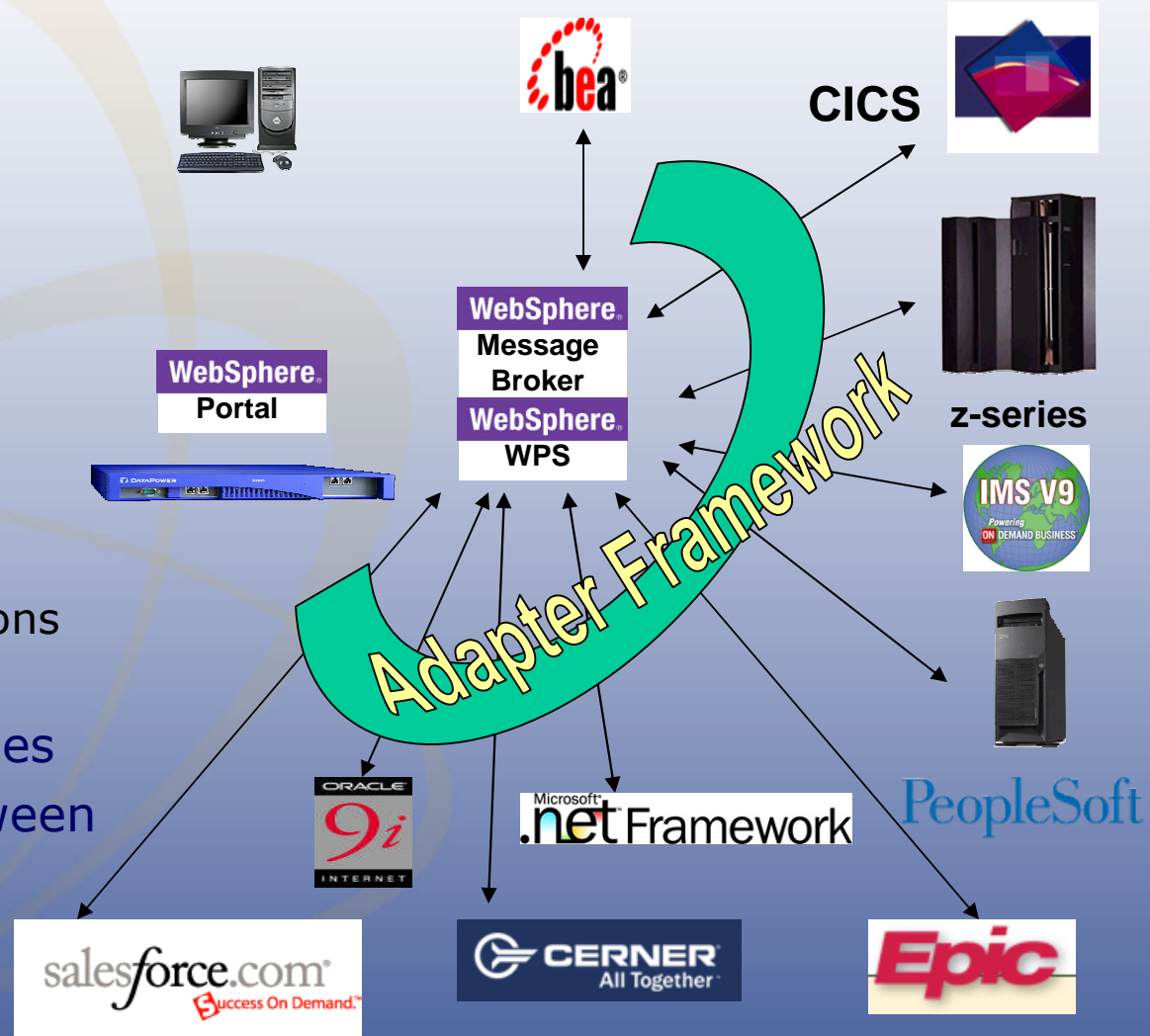


- ▶ **Our DataPower solution adds:**
  - Enhanced throughput, reduced latency for XML processing and security processing
  - XML firewall & XML threat protection (eligible for DMZ deployment)
  - A higher level of security assurance including DoS protection
  - Additional administrative capabilities (CLI, signed and encrypted logging, etc.)
  - Service Level Management capabilities
- ▶ **Our DataPower solution improves upon WebSphere Message Broker:**
  - – Enhanced WS-\* (in particular WS-Security support)
  - – Web services gateway functionality (eligible for DMZ deployment)
  - – Optimized any-to-any transformation
- ▶ **Our DataPower solution brings to WebSphere ESB:**
  - Enhanced WS-\* support
  - Support for non-XML data
  - MQ, WebSphere JMS connectivity
  - Advanced Web services gateway functions

# iSOA Group Comprehensive



- ▶ Variety of standards
  - Web Services
  - C++
  - Mainframe
  - Messaging
  - Others
- ▶ Business Processing
  - Human interaction
  - Long running transactions
  - Process coordination
- ▶ Large transaction volumes
- ▶ Need to coordinate between many vendors



# ESB Patterns from iSOA Group

- ▶ Two Patterns
  - iSOA Group Point to Point and Secure
  - iSOA Group Comprehensive

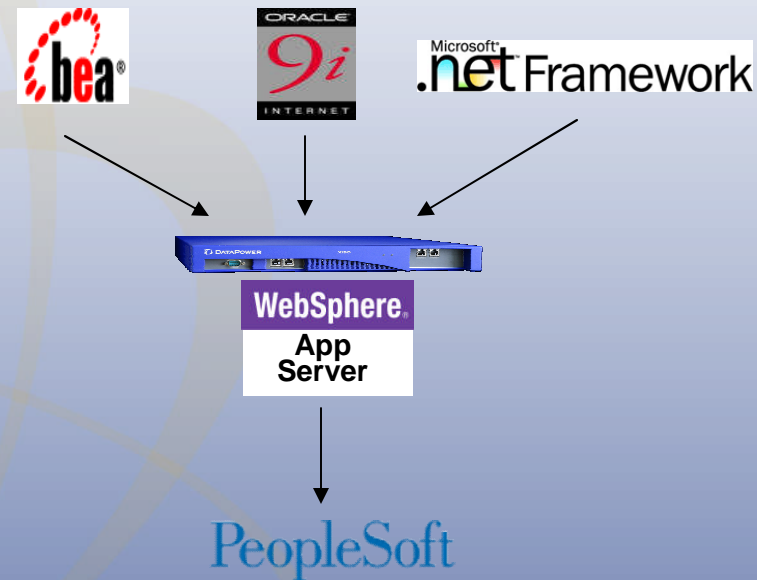
## How we add value

- ▶ Enforce governance and compliance
  - Management
- ▶ Secure and build pipeline
  - SOA framework

# iSOA Group Point to Point and Secure

## ► Pure Web Services

- < 5000 transactions
- Secure transactions
- Performance oriented
- Data integration
- Great for Quick hitters



# Point to Point Web Services Integration

