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Business Object Services

March 2001
Wells Fargo Environment

- Large number of mainframe based Systems of Record (SOR’s) which are based on CICS, COBOL, DB/2, IMS, etc.
- Client applications are Win/NT or Unix based systems using object technology
- High processing volumes with tight constraints on response time and availability commitments
- Used CORBA middleware to bridge the two processing environments while meeting the service level requirements
Wells Frame

• An object based framework that normalizes the disparate SOR’s present in the enterprise into a consistent, standard environment or logical system.
• Provides a single interface to the client application business analyst and programmer.
• The framework is both platform and language neutral.
Application Development Steps

- Define the application in a platform independent model in UML
- Generate the appropriate UML platform specific models needed by the application
- Augment the model with any additional code needed by the application that completes the business logic functionality
- Generate the application programs
Implementing from a model

- <<Factory>> AccountFactory
  - Get()
  - FindForCustomer()
  - Open()

- <<BusinessObject>> Account
  - number : string
  - ln : string
  - balance : fixed
  - Debit()
  - Credit()
  - Refresh()
  - Close()

- <<BusinessObject>> Customer
  - +titleHolders 0..n

- <<Type>> AccountAccess

- Business Object Services
  - Proxy Generation (C++ & Java)
  - IDL Generation
  - Bridge Generation
  - Servant Generation
  - "Legacy" Object Generation

- Business Service Interfaces
  - CORBA Bridge
  - SOAP Bridge
  - DCOM Bridge
  - RMI Bridge
  - CORBA Proxy
  - SOAP Proxy
  - DCOM Proxy
  - RMI Proxy

- Business Logic
- SOR Interfaces
- COBOL
- HOGAN
- XML
- LDAP
- SQL

- Persistence
  - Mainframe
  - Mainframe UNIX Host
  - RDB
  - MS

- System Of Record
- Network
- Web Application Server
- Windows Application
- Interactive Voice Response Unit

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Summary

• Architecture based on platform independent models is allowing us
  – to effectively support additional new functionality
  – while migrating a large application to a newer version of CORBA
  – and also allowing us to support additional languages such as Java

• We believe the OMG’s Model Driven Architecture is a validation of Wells Fargo’s direction in an open industry standard forum that will greatly benefit us in the future