

xConnect Overview

Key Points Summary

xConnect is a rule-based message routing architecture.

Business Features

- FIX, XML
- Virt-X, SWX, Xetra
- Shares, Fixed Income
- Orders, Market Data, Trade Slips, Trade Notifications

Technical Features

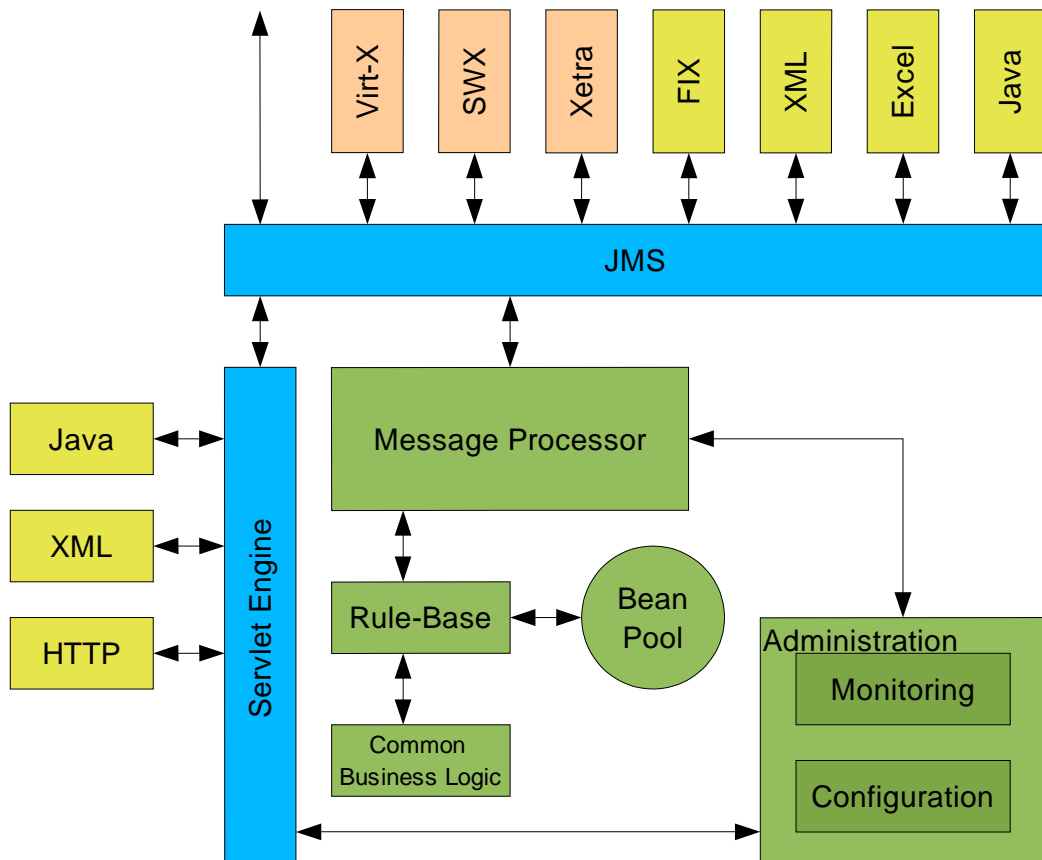
- Java J2EE Based (JBoss) with JMS messaging
- Signed Java front end
- Multi-platform: Linux, Windows, Solaris, AIX
- Support for multiple Exchanges and Gateways
- Easily extended through modular design

xConnect Solution Concept

xConnect is an interconnectivity tool which allows varied and differing systems to be connected via a defined set of business rules. Since it is based on standard middleware, it allows the emphasis to be placed on the business goals of the connection in question.

xConnect Architecture

xConnect is a set of components which run within the standard J2EE framework:



Brief Component Descriptions

Message Processor

The message processor applies the rule-base to incoming messages and routes messages to their destinations. The message processor is scalable across multiple instances and message types if required.

Rule-Base and Common Business Logic

The rule-base is a set of functions with a standardised call signature. This allows the deployed set of rules to be configured according to the business requirement for any given deployment.

In addition to this standard business logic is available for use for each rule. Standard message types are already defined for all the common exchange entities such as trades, orders and market data.

The core framework of xConnect provides all the basic services, which are available for use by the add-on modules. These include functions for User Management, System Administration, Journal File Management, Monitoring and configuration.

Exchange Gateways

The connection to specialised exchanges is implemented using a standard gateway component, which is tailored to the required exchange API. This means that exchange 'specialities' can be kept to the local exchange as far as possible and mapped to a common business model in xConnect.

FIX Gateway

The FIX gateway is also implemented using the standard gateway component and implements the FIX protocol using the highly acclaimed QuickFIX engine (<http://www.quickfixengine.org>).

Other Gateways

All business messages can be sent and received in XML format for processing by external systems. An Excel client module allows for further integration possibilities with in-house customer applications. Raw data formats have also been implemented to meet specific customer requirements.

Extensibility

By providing standard processing and Gateway components, which can be tailored to meet customer needs, xConnect can be extended easily and at low cost.

J2EE Design

xConnect uses J2EE compliant Java(TM) Technology. The benefits of which are well documented (<http://java.sun.com/j2ee/overview.html>, <http://www.jboss.org/overview>):

- Operating System Independence - A new OS means a re-test and not a re-write.
- Standard Infrastructure - Components such as Secure Messaging and Transaction Control are provided as standard.
- Support for high availability through distributed processing

xConnect recommends the JBoss Application Server, but has been run productively with WebLogic and WebSphere.