A WMQI Solution to Enable Integration of FIX message protocol systems using WebSphere MQ Integrator (WMQI).

Helping customers develop, deploy, integrate and automate their e-business applications

Overview

The FIX Solution for WMQI enables integration of FIX speaking sytems with legacy systems. It is designed to take data from a COBOL (e.g.) based back office system running on MVS (e.g.) and use it to create FIX messages and similarly take FIX messages and decompose them into data that that can be sent to these legacy systems.

Benefits

WMQI message sets will be provided for each of the 4.X FIX Protocol releases. These can be built on to by users to make environment specific additions to the messages defined in these sets. As a fully integrated messaging standard within WMQI, all the features of WMQI, such as the ability to define message flows, will now be available for users of the FIX Protocol.

The WMQI broker will enable interaction between applications, using the FIX Protocol and non-FIX Protocol enabled backend systems running any of the WMQI standard formats such as the Custom Wire Format which is commonly used with COBOL legacy systems, and using the bundled FIX Engine for interaction with a second party. The ability to parse and transform messages using the buildtime defined message sets will allow for any level of complexity in message manipulation and routing.
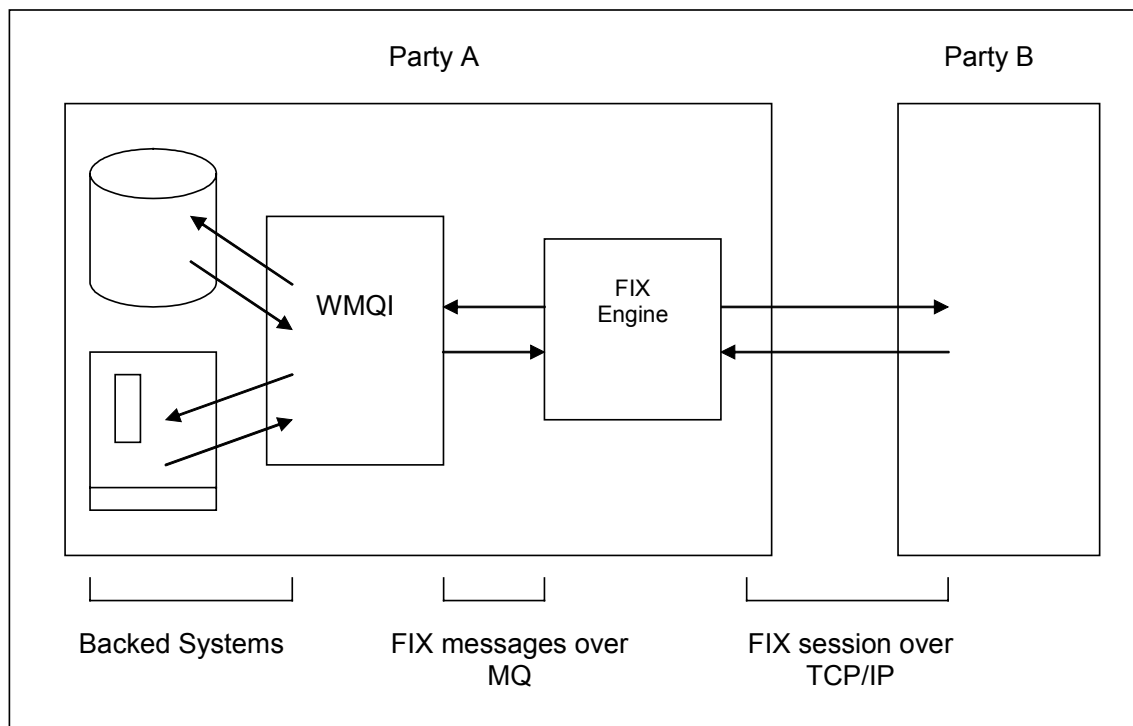
Features

The FIX Protocol Solution is designed to work with WMQI 2.1 CSD2 and support the 4.X FIX Protocol releases and will support the traditional tag=value syntax as well as the XML representation. It could also be used in an intermediary system between two FIX systems, e.g. to enable the interaction of systems based on different releases of the FIX Protocol.

The FIX Protocol Solution will cover both buildtime and runtime usage of WMQI.

1. **Buildtime** - Message sets for the various 4.X FIX Protocol releases will be provided preconfigured in the WMQI message repository metadata (MRM) database. Using the standard WMQI Control Center application these message sets can then be used as a basis from which the user can derive new message sets if they need to incorporate any environment specific extensions.

There will be different MRM message sets available for each of the 4.X FIX Protocol releases. The FIX Protocol defines a standard message envelope consisting of a header and a trailer, each FIX message consists of this envelope and an individually defined message body. This will be modelled using the WMQI multipart messaging facility. The standard trailer and header that make up the envelope and each of the message bodies will be available as individual messages within the MRM defined message sets.

Party A   Party B

Backed Systems   FIX messages over   FIX session over
                             MQ   TCP/IP

2. **Runtime** - Each FIX Protocol message will be formatted as a single MQ message containing the entire FIX Protocol message as its body.

As a fully integrated component of WMQI this solution will not require the use of any user exits as any additional processing required for any given message will be preformed by the WMQI broker.

The FIX engine that is supplied supports operation as an initiator of a FIX session (i.e. client mode) and as an acceptor of a FIX session (i.e. server mode). It negotiates login/logout operations as well as the sending and receiving of heartbeat messages. It also supports encryption, third party routing and error handling.
The FIX solution requires customisation to meet exact customer requirements.

Supported Platforms

   Sample FIX Engine

   - Any environment supporting Java™ 2 Platform, Standard Edition, v1.3.1

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