

About us

- ✓ B2BITS is a financial markets software company committed to providing its clients with industry leading technology. Our unique approach delivers the most complete range of FIX products available.
- ✓ B2BITS develops, integrates and licenses a suite of the most powerful proprietary technology systems, products and tools including systems for direct market access and trade order management.
- ✓ B2BITS offers the widest range of FIX services available from a single vendor such as FIX Engines with monitoring, Testing and Certification Tools, and the latest development order tracking tool FIX Eye.
- ✓ B2BITS is dedicated to provide FIX integration services for companies in capital markets worldwide.

Announcements

- ✓ **FIX Antenna 2.0 with FAST 1.1 support**
The new major version of the flagship product with the new functionality, FIX 5.0 and FAST 1.1 support and significant increase of performance.
- ✓ **FIXopaedia 2.0**
The latest FIX dictionaries for the support that has been updated to include all versions of FIX protocols available on the market (FIX 4.0, 4.1, 4.2, 4.3, 4.4, 5.0 and FIXT 1.1).
- ✓ **FIX Eye / FIX Grep / FIX Agent**
FIX logs tracking tool product family: GUI, console, scripting, remote access.
- ✓ **MetaTrader FIX Bridge**
The plug-in for MetaTrader Server that allows to transmit financial data to the generic FIX session.
- ✓ **FIX₄Excel**
The plug-in for MS Excel that allows to send orders to exchange and track their state. It enables user to combine the power of MS Excel and FIX protocol.



FIX Grep and FIX Eye

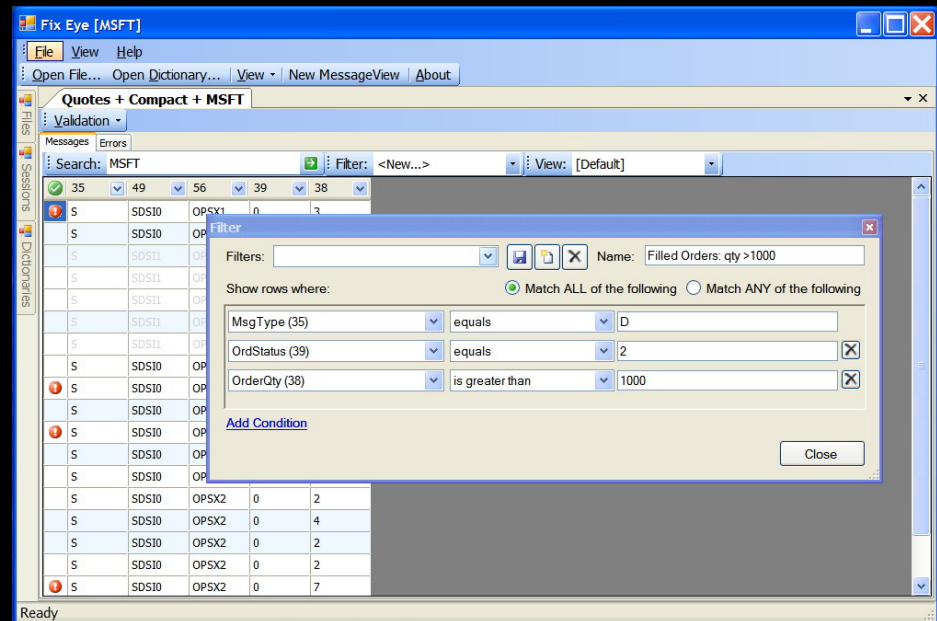
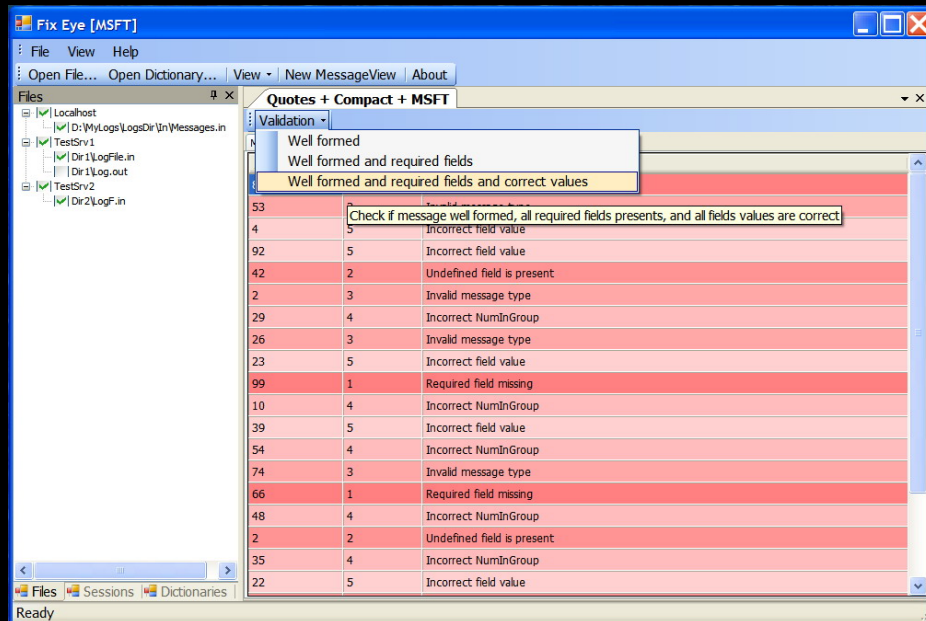
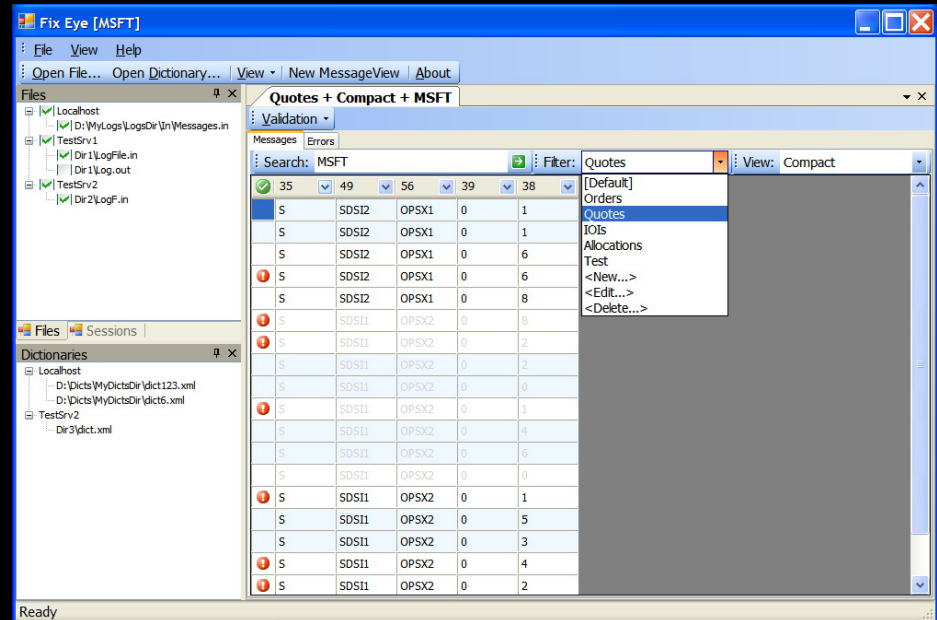
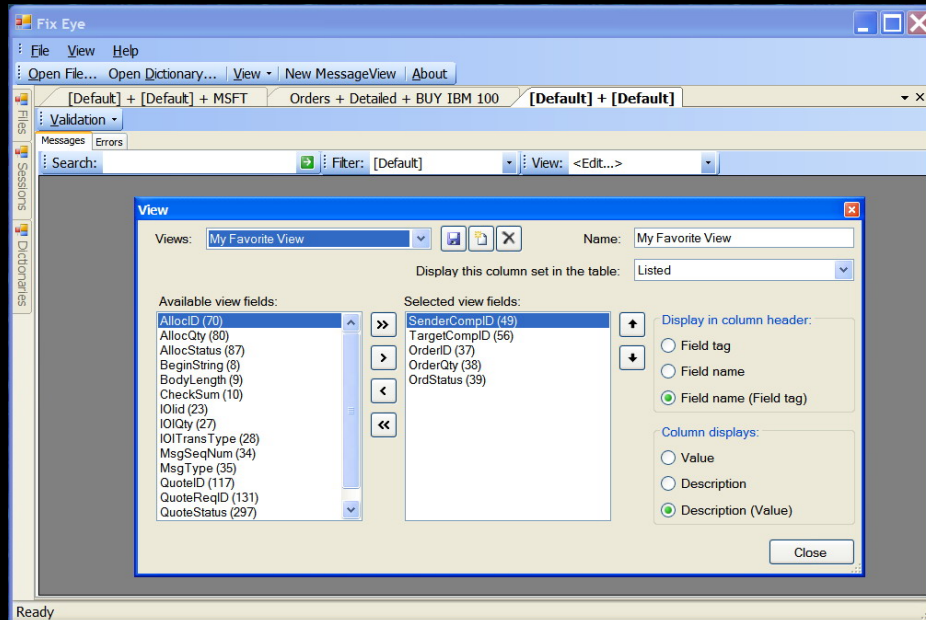
FIX Grep – Console utility for searching for a message or a string in FIX logs. It provides the following features:

- Context search
- Orders log
- Data filters
- Different detailing levels
- Custom FIX dictionaries
- Message validation and support for correction
- Rich command line
- Input from file and/or stdin
- Output to file and/or stdout
- Process of unlimited file size
- Process of 20000 messages per second
- Multi-platform: Windows and Linux

FIX Eye – Visualization tool, which generates instructions to FIX Grep and publishes results in the convenient pretty-looking flexible spreadsheets. The following features are provided in addition to reused from FIX Grep:

- Customized views:
 - Fields list to show
 - Description level
 - Sorting
 - Coloring
- Message detailed view
- Excel-style data filters
- Multiple windows

FIX Eye



FIX Antenna 2.0

FIX Antenna 2.0 is the latest major product version available in different flavors: .NET, C++ and JAVA. FIX Antenna supports FIX 4.0, 4.1, 4.2, 4.3, 4.4, 5.0 and FAST 1.1.

FIX Antenna C++

- Throughput:
- 35,000+ msg/sec
- Latency:
- 0.001 millisecond
- Fail-over
- Message routing
- Sessions management
- Persistence
- Message buffering
- Message validation
- XML FIX dictionaries
- Transient sessions
- Rejecting
- FIX dialects
- Send/Receive priority
- Backup connections
- Run-time statistics

FIX Antenna .NET

- Leverages FIX Antenna C++
- Throughput: 30,000+ msg/sec
- Latency: 0.002 milliseconds
- Delivered as .NET assembly
- Available for: C#, VB.NET, MC++, C++-CLI, Delphi. NET
- FIX object model
- Available for .NET 1.1 and 2.0

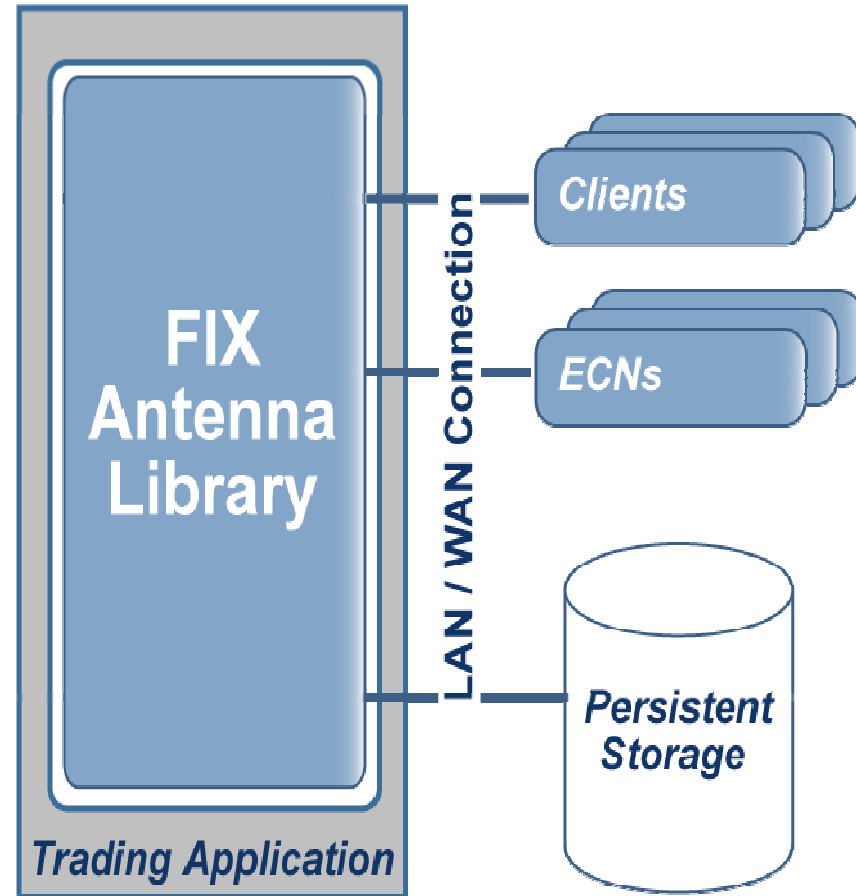
FIX Antenna Java

- Throughput: 10,000 msg/sec
- XML data dictionaries
- FIX dialects
- FIX message validation
- FIX - FIXML two-way conversion
- Automatic reconnect and resend processing
- Automatic configurable sequence resetting
- Dynamic session configuration and management
- Persistence storage for sessions and messages
- Rich API
- Highly configurable
- Monitoring and alerting facilities



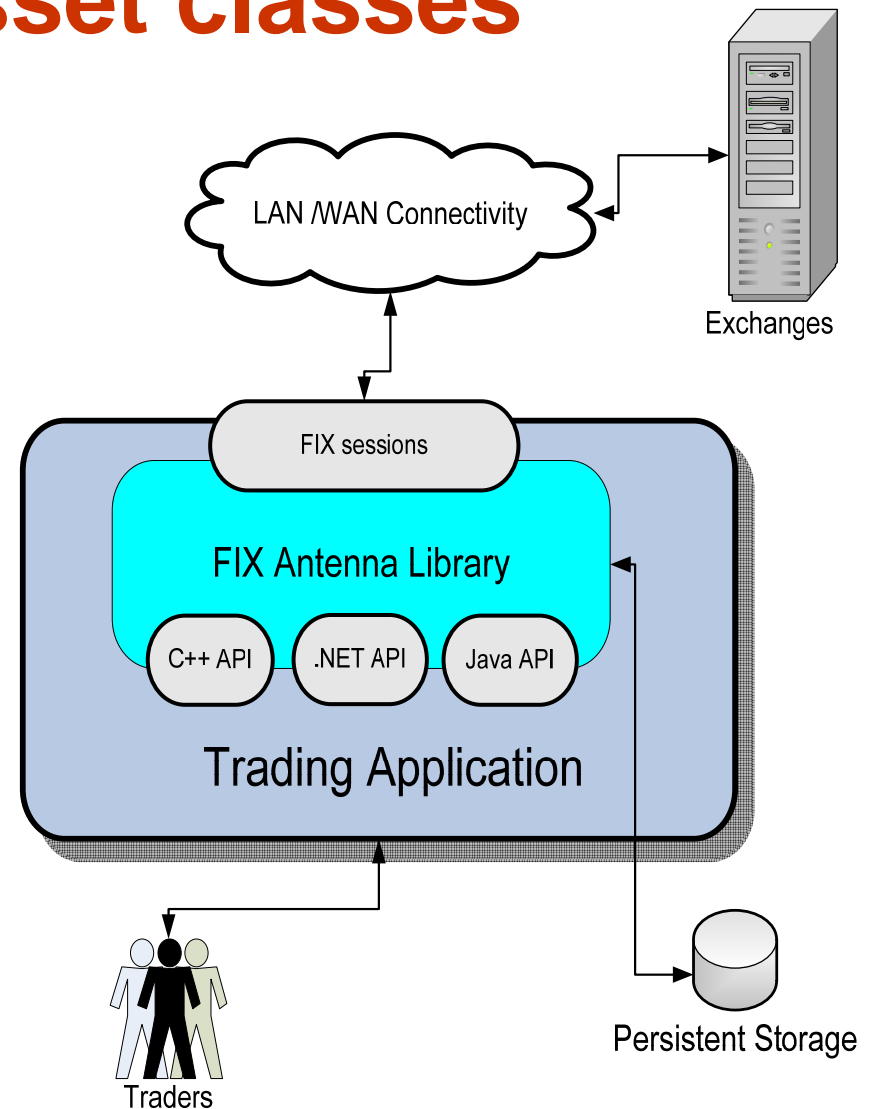
FIX Antenna 2.0 C++/.NET

- FIX 4.0, 4.1, 4.2, 4.3, 4.4, 5.0
- FAST 1.1
- FIX dialects
- Multiple concurrent sessions
- High throughput
- Low latency
- Build-in FIXopaedia
- Fail-over
- Highly customizable
- Comprehensive customizable logging
- Run-time statistics
- Backup connections
- Rich package
- Flexible licensing



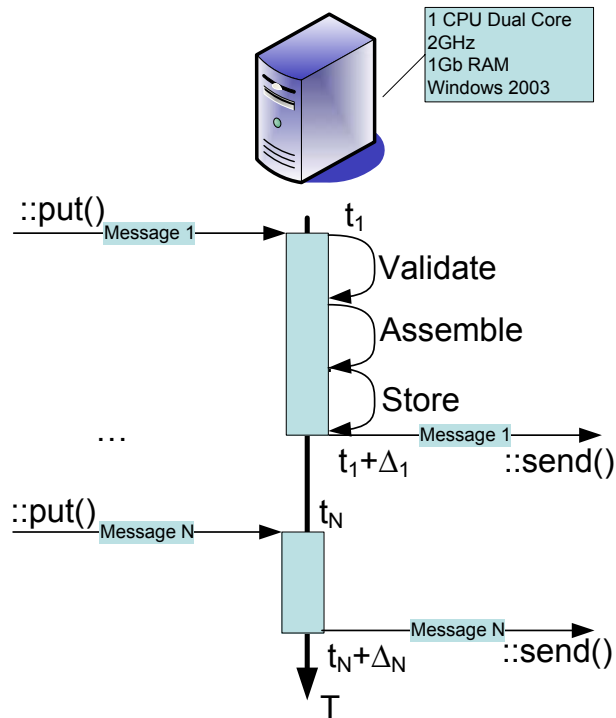
List of certified FIX connections for different asset classes

- AMEX
- ARCA (Archipelago)
- ATD (Automated Trading Desk)
- AutEx
- Bloomberg
- Bondtrac
- BRASS
- CME
- Currenex
- ICE (Intercontinental Exchange)
- INET ATS
- ISE
- MEFF
- NYSE CAP
- Patsystems
- PHLX (Philadelphia)
- Saxo Bank
- SIG (Susquehanna International Group)
- ValuBond



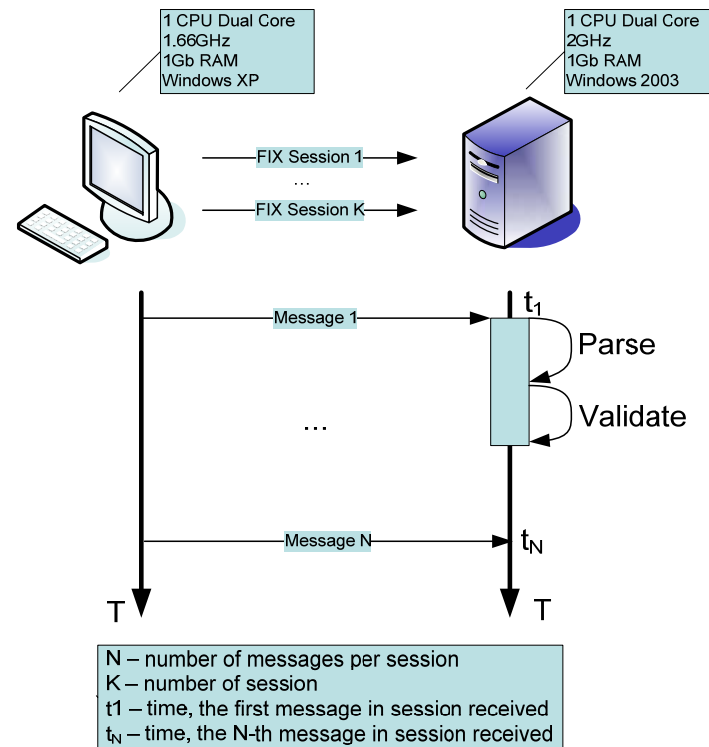
Benchmarking Technique

$$Latency = \frac{1}{N} * \sum_{i=1}^N \Delta_i$$



N – number of messages per session
 t₁ – time, the first message in session received
 Δ₁ – time the first message was processed before sending
 t_N – time, the N-th message in session received
 Δ_N – time the N-th message was processed before sending

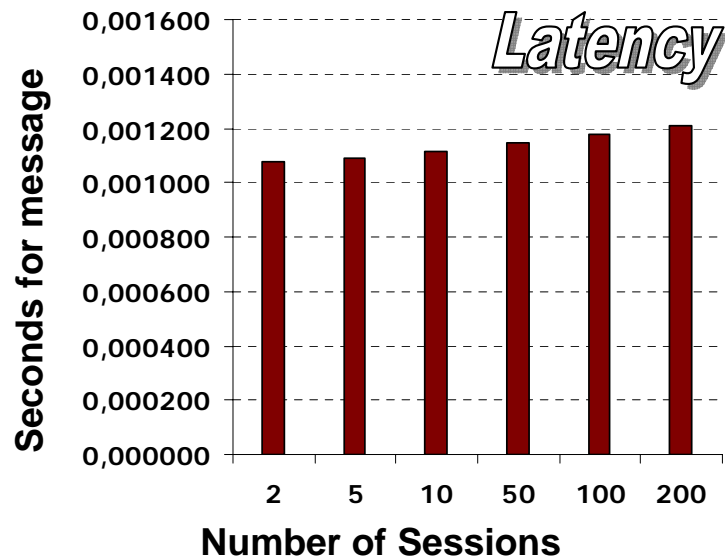
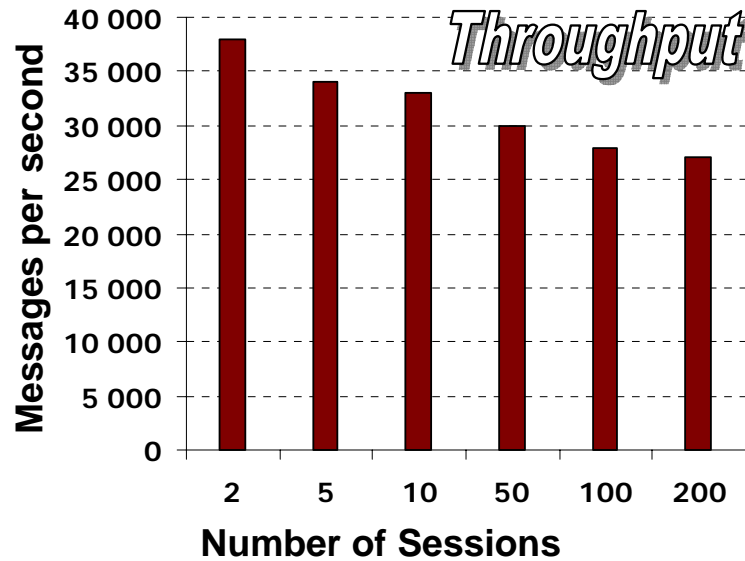
$$Throughput = \frac{N}{t_N - t_1} * K$$



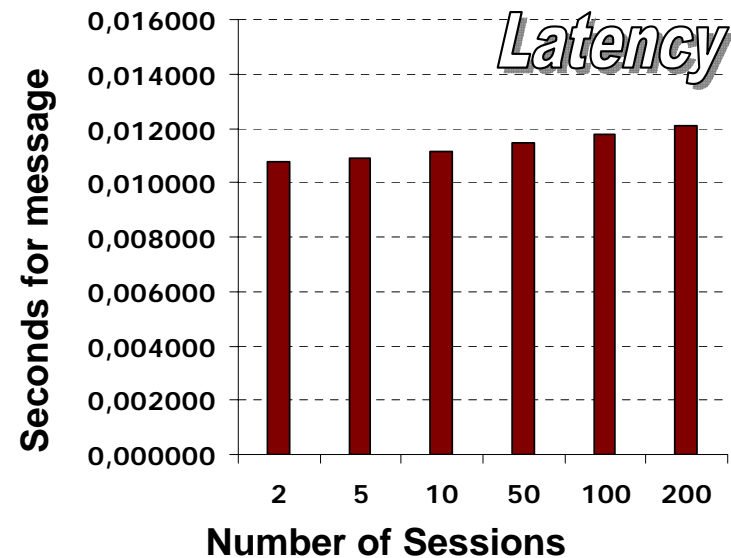
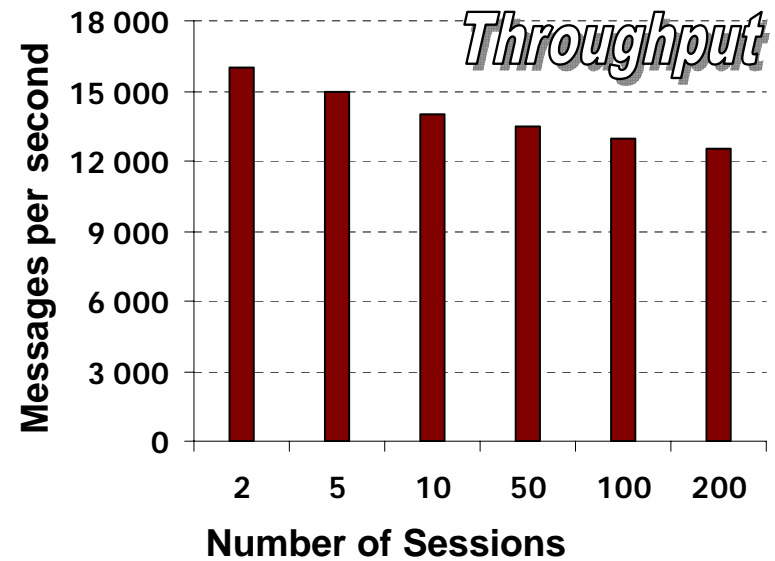
N – number of messages per session
 K – number of session
 t₁ – time, the first message in session received
 t_N – time, the N-th message in session received



FIX Antenna 2.0

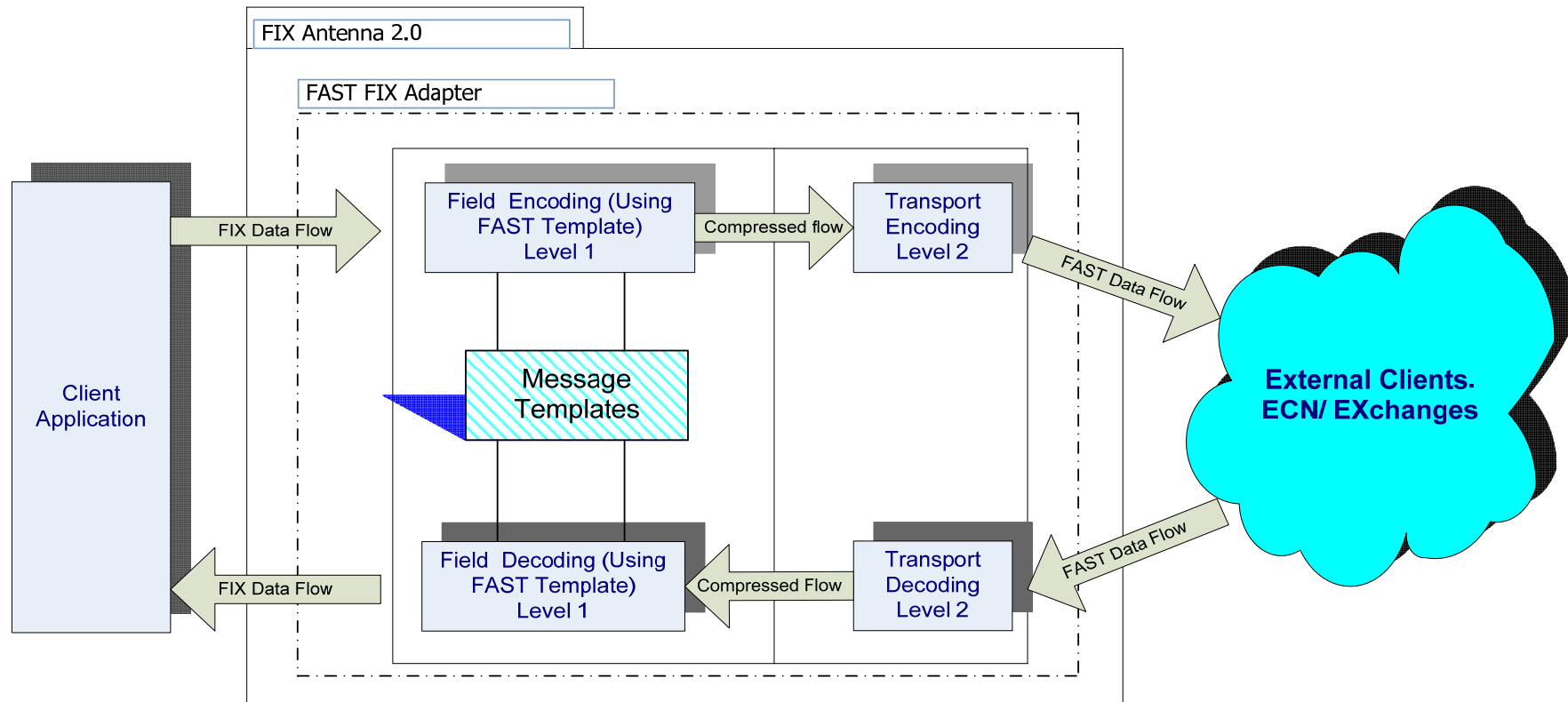


FIX Edge 5.0

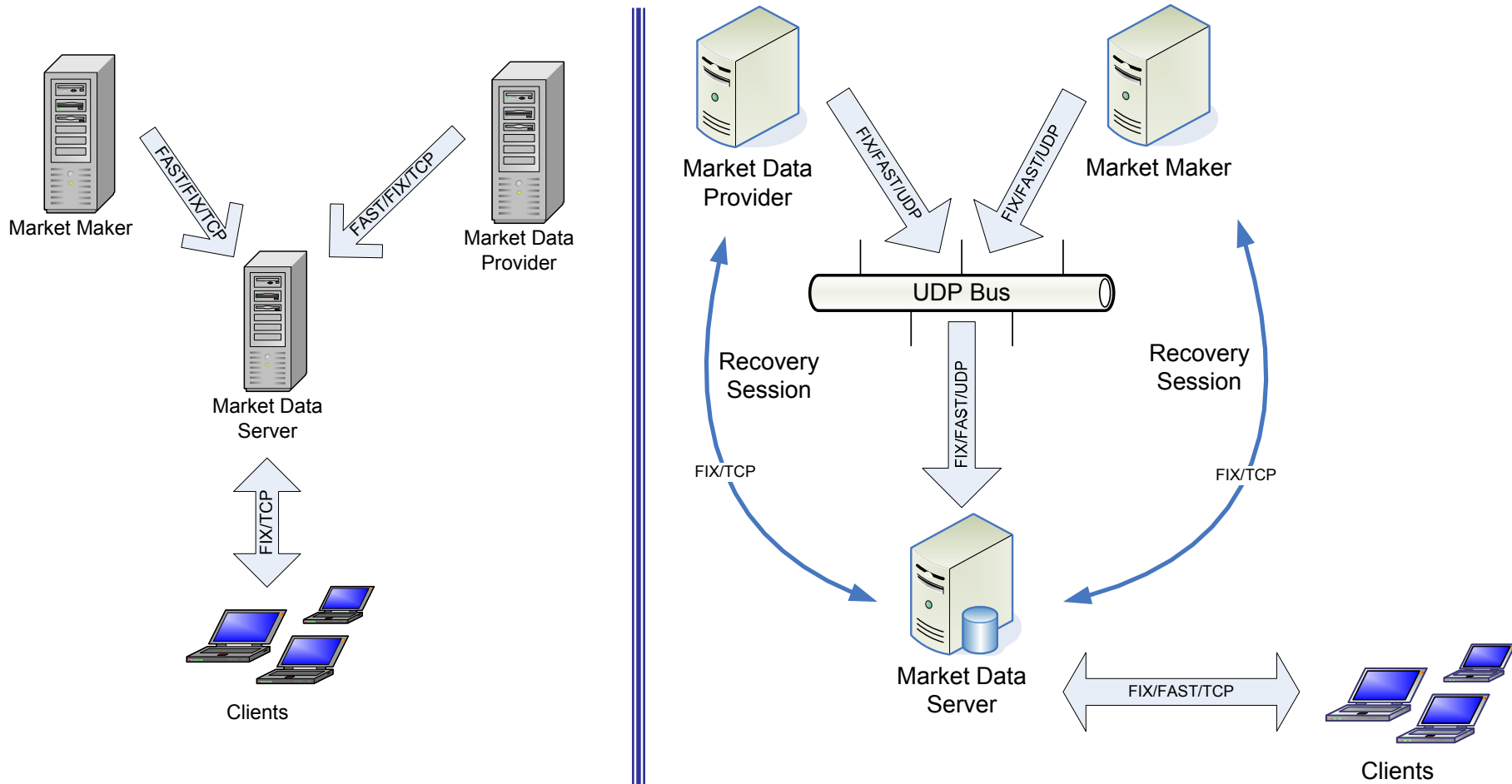


FAST Internals

- **Level 1** – a concept referred to as Field Operators allows data affinities of a stream to be leveraged and redundant data to be removed.
- **Level 2** – serialization of the remaining data is accomplished

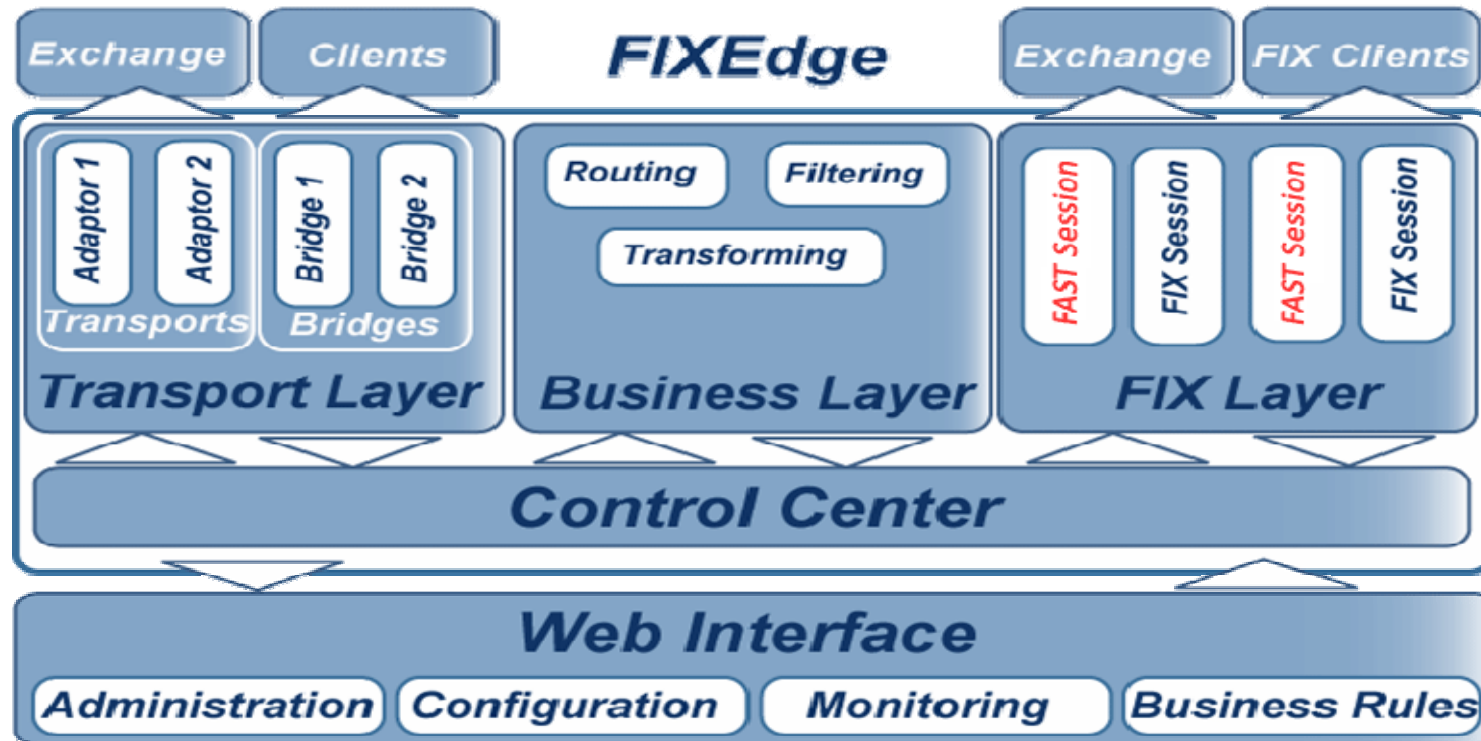


Successful FAST stories





FIX Edge: FIX Hub Architecture



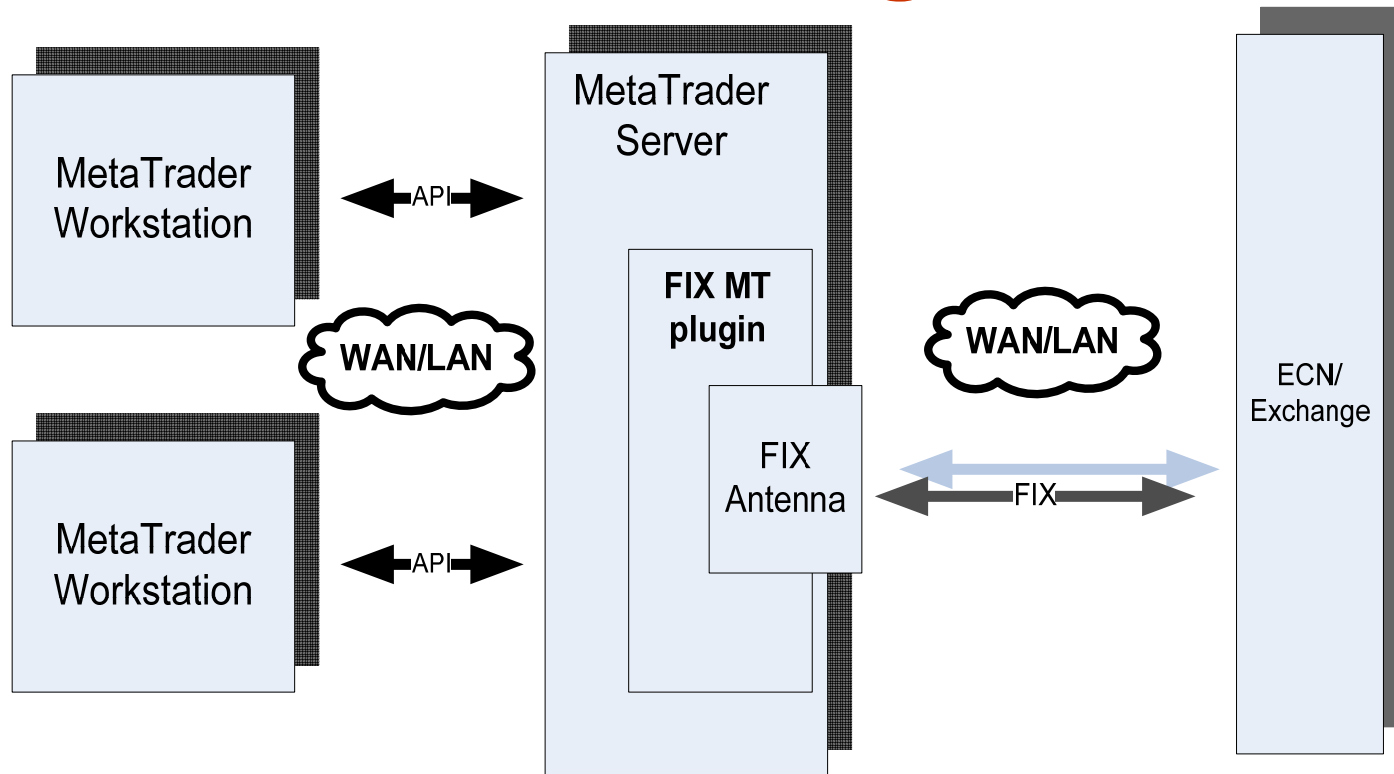
- Leverages FIX Antenna C++
- Embedded rule engine
- Pluggable OSM
- ODBC/File histories
- Pluggable transports
- Various supported transports (SXS, COM, MQ, TIB, NPipe)

- Comprehensive customizable logging to different devices (file, event log, system log, console)
- Web-based interface for configuration, administration and monitoring
- Administration remote interface

- High availability based on Windows 2003 Server cluster
- Static load balancing
- Rich notification API (SNMP, e-mail, IM, mobile devices)
- Scheduler



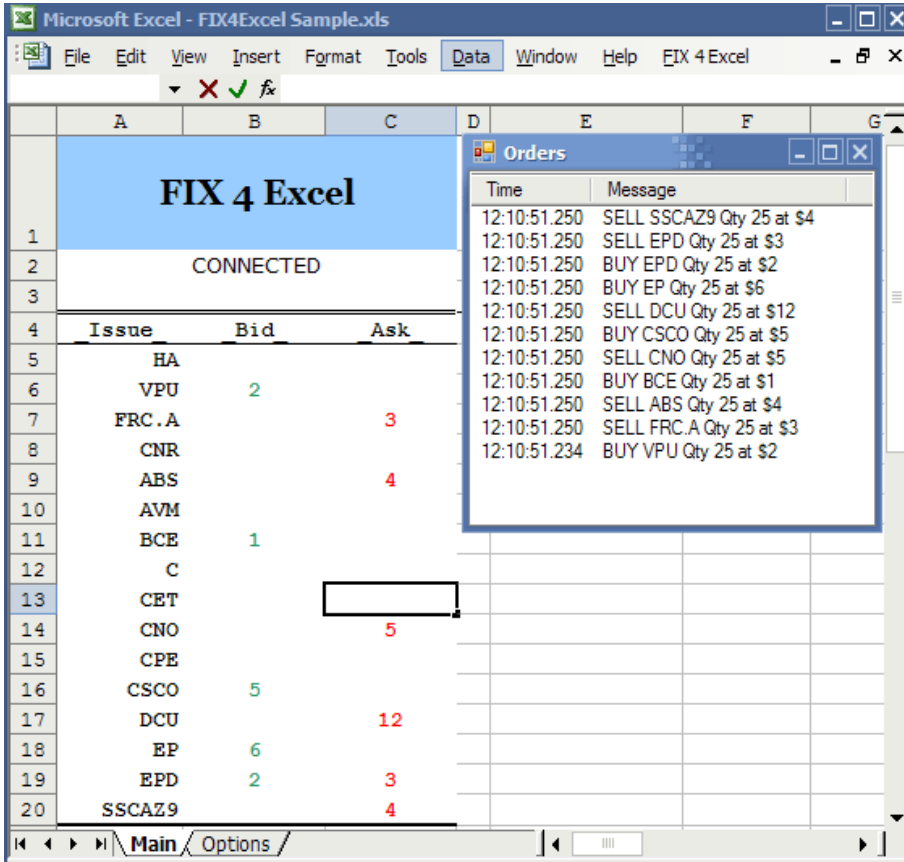
Metatrader FIX Bridge architecture



- FIX – MT conversion
- Submit order
- Modify order
- Cancel order
- Receive executions

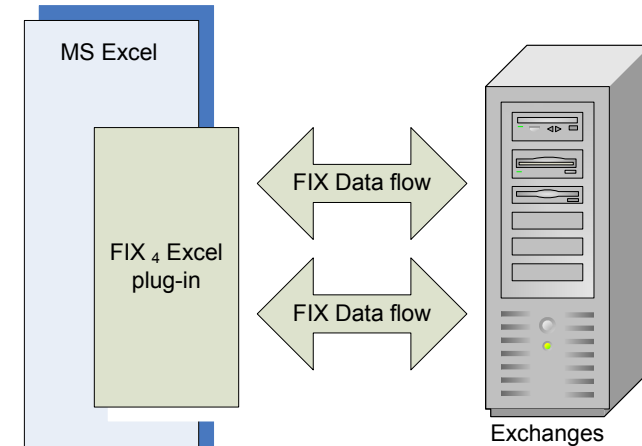
- Handle market data
- Keep position
- Open position
- Close position
- Modify position

FIX₄Excel



FIX 4 Excel		
CONNECTED		
Issue	Bid	Ask
HA		
VPU	2	
FRC.A		3
CNR		
ABS		4
AVM		
BCE	1	
C		
CET		
CNO		5
CPE		
CSCO	5	
DCU		12
EP	6	
EPD	2	3
SSCAZ9		4

Time	Message
12:10:51.250	SELL SSCAZ9 Qty 25 at \$4
12:10:51.250	SELL EPD Qty 25 at \$3
12:10:51.250	BUY EPD Qty 25 at \$2
12:10:51.250	BUY EP Qty 25 at \$6
12:10:51.250	SELL DCU Qty 25 at \$12
12:10:51.250	BUY CSCO Qty 25 at \$5
12:10:51.250	SELL CNO Qty 25 at \$5
12:10:51.250	BUY BCE Qty 25 at \$1
12:10:51.250	SELL ABS Qty 25 at \$4
12:10:51.250	SELL FRC.A Qty 25 at \$3
12:10:51.234	BUY VPU Qty 25 at \$2



- Submit orders
- Replace orders
- Cancel orders
- Process executions
- Keep position
- Track orders state

B2BITS selected FIX products family

