

# FIX Antenna C++

B2BITS FIX engines are world-recognized solutions, regularly topping in FIX User surveys, installed at hundreds of buy-side and sell-side firms. Each of the B2BITS FIX solutions is designed to address specific customer needs and environments, yet all share common features, enabling us to offer them at much lower prices.

FIX Antenna C++ is specifically designed to deliver high performance. It is an ideal solution for exchanges, sell sides and program trading operations. FIX Antenna C++ FIX engine is currently deployed in some of the most demanding environments in the world.

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Feature	Description
High performance / low latency	The highest performing FIX engine in existence Delivers over <b>40,000</b> messages per second Benchmarked at <b>30,000</b> messages per second across 200 sessions Adds up to <b>25</b> microseconds' latency on 100 Mbps network Allows configuring sending/receiving prioritization for session In transient mode it can deliver over <b>115,000</b> messages per second
100% FIX standard compliance	All versions of FIX protocol are supported: <ul style="list-style-type: none"> <li>• FIX 4.0-4.4, 5.0, 5.0 SP1</li> <li>• FIXML 4.1-4.4, 5.0, 5.0 SP1</li> <li>• FAST 1.1</li> </ul> All asset classes Standard FIX protocol extensions: <ul style="list-style-type: none"> <li>• User-defined tags</li> <li>• User-defined message types</li> </ul> Validation
Rich message composition API	Supports two message composition APIs: <ul style="list-style-type: none"> <li>• Flat model — simple and fast</li> <li>• Object model — typified message API, which allows working with FIX business objects as with classes and class members</li> </ul>
FIX protocol customization	Ability to change standard FIX protocol: <ul style="list-style-type: none"> <li>• Change tag's "required" attribute</li> <li>• Remove field from set of "defined" fields</li> <li>• Define new message type</li> </ul>
FIX protocol conversions	Provides several types of conversions: <ul style="list-style-type: none"> <li>• Between different versions</li> <li>• Between FIX and FIXML</li> <li>• Auxiliary conversion (e.g. generate reject)</li> </ul>

Feature	Description
<b>Guaranteed delivery</b>	Fully supports all FIX session level mechanisms, such as heart-beating, sequence number maintenance, automatic reconnect, gap fill, etc. FIX Antenna implementation is based on <b>store-and-forward</b> mechanism, which prevents messages from being lost; the <b>persistent</b> mode prevent message from being lost even after software failure
<b>Customizable FIX session level</b>	Provides flexible mechanism for session level customization such as smart sequence number handling, controlled retransmissions, authorization, etc.
<b>Rejecting vs. later delivery</b>	Each FIX session individually can be configured for later delivery mode or for rejecting mode. Rejecting mode allows specifying message time-to-live, after which message is rejected
<b>High availability</b>	Fully restores its state after failure
<b>Back-up connections</b>	Each FIX session can be configured to have back-up connection parameters; automatic and manual switches are supported
<b>Market Data</b>	Ready for Market Data distribution: <ul style="list-style-type: none"> <li>• Transient session with extremely low latency and high throughput</li> <li>• FAST</li> </ul>
<b>Security</b>	Supports all standard FIX encryptions modes, provides SSL support either via <b>SSL tunneling</b> or using native <b>built-in SSL</b> support
<b>Remote administration interface</b>	Provides set of monitoring and administration functions. Comes with AdminApplication class, which can be inherited and extended
<b>Well packaged</b>	FIX Antenna is delivered with: <ul style="list-style-type: none"> <li>• Precompiled binaries for chosen platform</li> <li>• API Guide</li> <li>• Programmer's Guide with code examples</li> <li>• Set of primitive "quick start" samples</li> <li>• Set of utilities with sources</li> <li>• Benchmark tools with sources</li> <li>• Handy installer</li> </ul>
<b>Supported platforms</b>	Supported OS: <ul style="list-style-type: none"> <li>• <b>Windows, Linux, Solaris</b></li> </ul> Supported compilers: <ul style="list-style-type: none"> <li>• <b>GCC</b></li> <li>• <b>MS Visual Studio 2003/2005/2008</b></li> </ul>

B2BITS FIX engines come at a fixed annual cost. There are NO additional charges, no message fees, no message limits, no charges for each processor, no charge for different operating systems, no charge for high availability, no charge for routing capability, no charge for persistent storage.