



## Initial Proof of Concept Successful in Optimizing FIX for Streaming Market Data

**September 6, 2005** – FIX Protocol Ltd. (FPL) is pleased to formally announce initial results from the Market Data Optimization Working Group Proof of Concept (POC) which is a focused effort designed to develop practical solutions for the efficient dissemination of market data. The POC is a series of well-controlled tests executed on a new data compaction methodology developed by FPL's Market Data Optimization Working Group called **FIX Adapted for STreaming<sup>SM</sup>** also known as the **Fast Protocol<sup>SM</sup>**.

The results thus far indicate that the proposed encoding algorithm is fast enough to keep up with data rates well over 10 Mbit/second and in some cases over 50 Mbit/second. Testing activities demonstrated 78% to 89% peak compression rates when compared to the original size of the data source. CPU Utilization was measured at 3.4 microseconds per message (294,000 messages per second) or less. The sample data sets included in the initial phase of the POC are Archipelago Exchange's ArcaBook Feed, Options Price Reporting Authority (OPRA) Feed, Chicago Mercantile Exchange (CME) Globex Feed, and Nordic Exchange (NOREX) Feed.

Exchange Feed	Fast Protocol – Peak Compression Rate	Fast Protocol – Messages Per Second (mps)
ArcaEx ArcaBook	79%	714,000 mps
OPRA	78%	555,000 mps
CME Globex	81%	294,000 mps
NOREX	89%	588,000 mps

For a complete report on the results of the POC, please visit [http://www.fixprotocol.org/documents/1780/POC%20Results\\_Phase1A.pdf](http://www.fixprotocol.org/documents/1780/POC%20Results_Phase1A.pdf)

The **Fast Protocol<sup>SM</sup>** leverages implicit tagging, field encoding and serialization in order to radically reduce message size and bandwidth utilization. The POC has demonstrated the ability to significantly improve communication efficiencies for several real-world exchange data feeds without incurring material trade-offs in processing and latency. The **Fast Protocol<sup>SM</sup>** is based on the concept of data familiarity which allows greater speed and efficiency than conventional compression utilities such as ZLIB and GZIP.

The POC activities are planned to continue through another phase that will cover FIX-based formats and additional data sets. The next phase will result in the final publication of a reference implementation of the **Fast Protocol<sup>SM</sup>**, a user reference guide, and supporting white papers covering best practices.

**Get Involved with the FAST Protocol<sup>SM</sup>** With the increased use of direct feeds coupled with sheer growth in electronic trading volumes and the resultant market data message rates, several market centers and market participants have expressed interest and participated in the FPL Market Data Optimization Working Group activities. The **Fast Protocol<sup>SM</sup>** provides a significant opportunity for the financial community as a whole to improve the effectiveness of the technology infrastructure. Through efforts such as this, FPL continues to provide innovation and leadership to the financial technology community.

FPL would like to recognize the sponsors of POC including ArcaEx, CME, London Stock Exchange (LSE), Microsoft and Singapore Exchange (SGX). In addition, FPL would like to recognize the contributions and support of Pantor Engineering and SpryWare. Both Pantor and SpryWare were retained by FPL to develop the **Fast Protocol<sup>SM</sup>** and for execution of the POC.