FIX Project Implementations – “Food for Thought”

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Part I
Myths and Implementation Examples
FIX Protocol – Global vs Local

Assumption

Global FIX Protocol

Local Requirements

Reality

Global

Local

Business Case –
Alpha – NYSE’s
TSE Arrowhead FIX Gateway

4 custom tags only for all order/execution interaction with the local exchange
FIX Latency to Exchange Gateways

Myth: FIX is slow
FIX Latency to Exchange GWs – (i) Architecture

Exchange Gateway
### FIX Latency to Exchange GWs – (ii) Example

**Note** - each test case: 15 Terminals, 5,000 accepted orders @ 1,000 orders/second throughput

### Exchanges force FIX Gateways to be slow by not allowing straight access to the matching engine.

However, even going through an exchange GW FIX can be fast, yet, never fastest. **What is fastest then? Do we need to be fastest?**

### Hardware utilized -
- **Server**: BL460c
- **CPU**: X5570 / 2.93GHz
- **Memory**: 2G x6
- **Non HA mode**

### Latency (micros)

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Two Other Examples of Applied FIX Solutions

Supporting one FIX Version is not enough

Business growth = counterparty growth = growth of FIX dialects

Requirement – system flexibility to accept/process such differences

Solution – FIX hubs to absorb differences / FIX versions

Different flavors of exchange order conditions do not always match FIX tags

Requirement – more generic FIX tags

Solution – FIX version 5.0 introduced many generic tags to describe complex conditions – Will it become Asian standard? (eg, SGX now implemented FIX Version 5.0 SP2)

Daniel Burgin, CEO NYSE Technologies Asia Pacific
FIX Engines Becoming Commodity

FIX Engines is simply part of your infrastructure everybody should have

Differentiating Factors
are how you create intelligence surrounding and interacting
With your FIX Engine
Reality Check FIX in a Local Market

FIX Engines is simply part of your infrastructure

everybody should have

Should everybody have a FIX engine, really?

Example Japan:

User Base:
- Global Players
- Domestic FX
- Domestic Commodity
- Domestic Equity
Part II
FIX Landscape in Korea

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