

NETBUILDER

LANDmark
FIXrouter

Product Overview

Edit History

Version	Author	Date	Description
V01-00	RPG	4 th Jan 2008	First draft
V01-01	RPG	7 th Feb 2008	Include feedback

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INTRODUCTION

Most trading systems offer a FIX interface for clients to connect into and automate the dealing process. However, the price is often restrictive, and the institution is obliged to justify each link it allocates to its clients by order flow and revenue.

In addition it is not uncommon for a number of different trading systems to be employed within a company, and whilst they all offer FIX connections, there is little or no connectivity between the systems. Whilst this in itself may not be a concern, any client systems are required to re-implement their connectivity for each and every system with which they wish to communicate.

FIXrouter is a simple, multi-version, FIX routing network designed to solve these problems. It provides a single, resilient connectivity option for all clients, enabling access to all secondary systems, and reducing trading system costs by minimizing the connectivity points into the principal systems. Additionally, since client connectivity to the trading system is no longer cost related, more clients can be permitted access without extensive cost/benefit analysis.

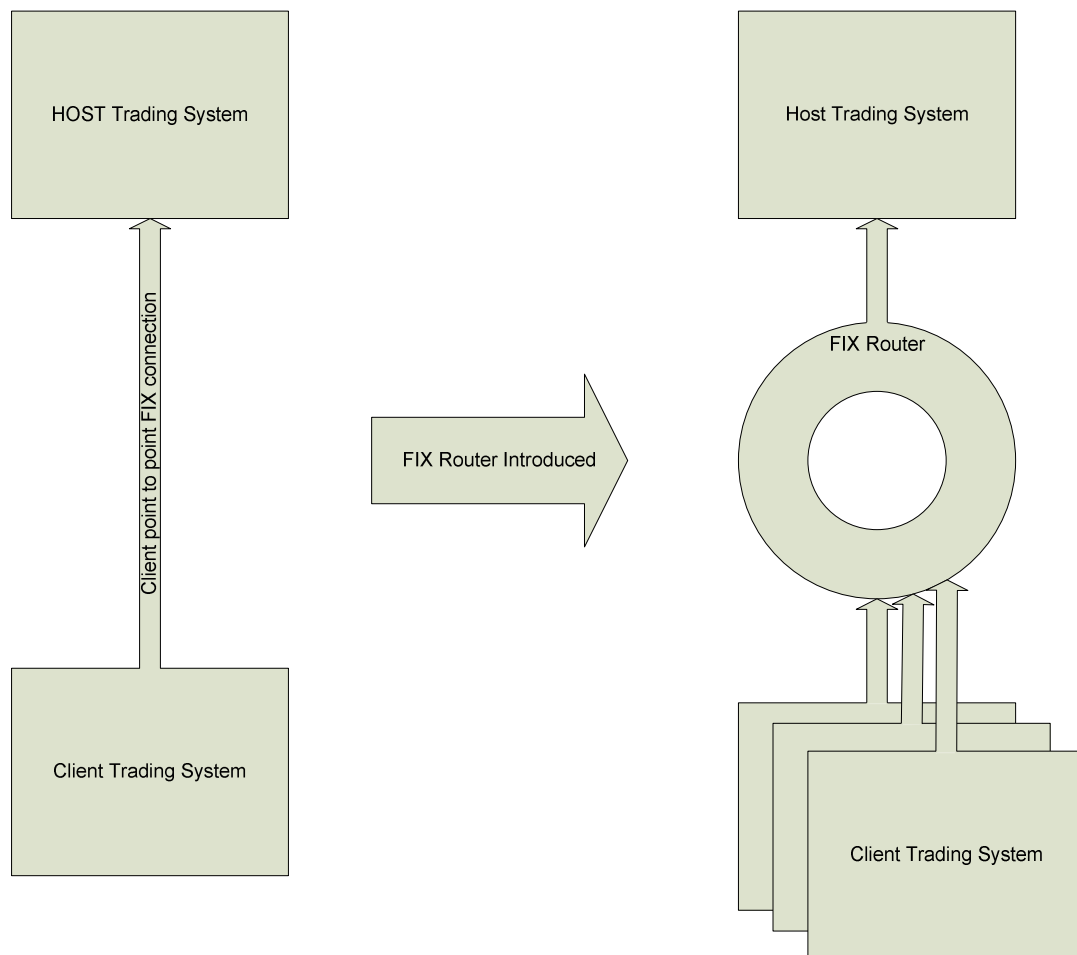
The system is backed by first, second and third line support from NETbuilder, which, with decades of experience in building and supporting trading systems and their users ensures that the systems are operational whenever required, and accurate help and assistance is provided to internal users and IT departments. The long history of operation and management within a FIX environment means that NETbuilder staff are ideally placed to assist your clients in their on-boarding process.

This document describes the functionality available and the some of the features and concepts incorporated into the design.

FEATURES

There are a number of key features in the FIX routing gateway that make it easy to implement, and to provide early benefits.

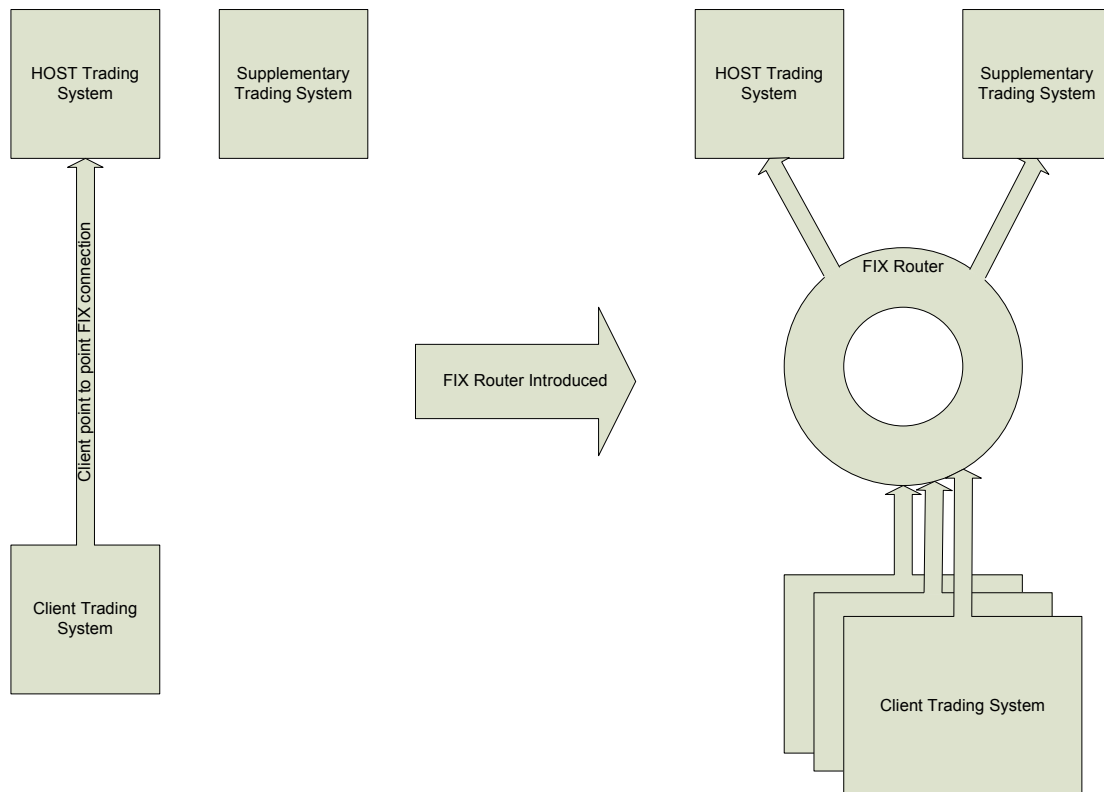
The implementation of a FIX connection into a routing network, rather than a direct point to point connection usually demands that the COMPID tags are arranged differently, requiring a different approach or configuration needs to be applied at the client end. The LANDmark FIXrouter can be configured such that it can be inserted seamlessly into an existing connection without any change on the client end.



Clients can additionally be granted simple and easy access to secondary trading systems. Currently, in order to establish a connection into a supplementary system, the client would be required to implement a new FIX connection, with all the inherent infrastructure issues associated.

The LANDmark FIXrouter having been implemented transparently against a client connection can then make all supplementary systems available for the client. The addition of a single FIX tag within the header will then divert all client traffic to a different system instead.

There is no limit to the target systems that can be interconnected in this way – opening up all possible venues to all clients with no additional cost.



This model provides routing benefits if there is only a single connection available to one trading venue across a number of data centres, but truly provides the maximum benefit when two connections to the service provider exist. In this scenario any failure in the service provision will automatically route all traffic across to any available connection providing no loss of service to the client.

The system provides full store and forward routing, which may be configured on or off for inbound client messages, according to the client's wishes giving either of the two operational modes.

- Deliver only when target is present and available
- Store and forward when the host system is ready and connected.

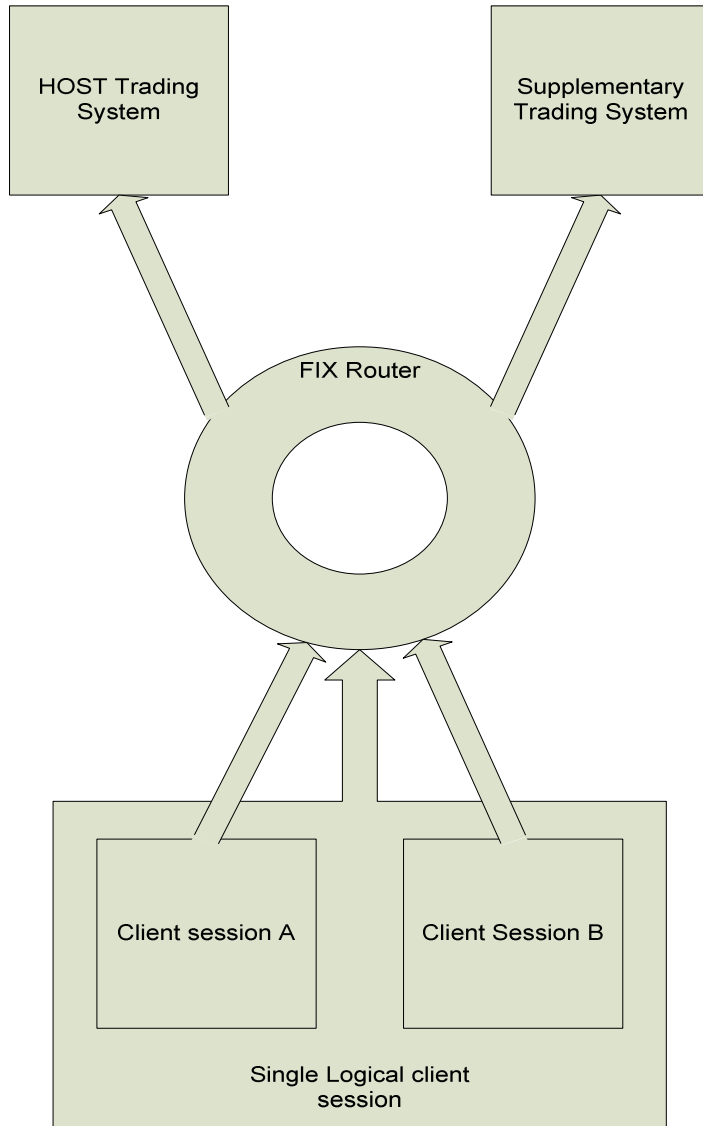
From a trading system perspective, ALL messages destined for the client are stored, and always forwarded to the client on next reconnection.

LANDmark's TM high availability routing engine provides resilient routing facilities over distributed systems and geographically separated data centres. This system permits a number of immediate advantages, notable:

- Resiliency against component failure.
- Resiliency against line/interface failure
- Resiliency against hardware failure
- Stable, mature software
- Highly distributed processing permits multiple site resilient configuration

The logical design of the LANDmark TM trading hub permits multiple servers to interoperate across multiple data centres. Any request from a client for trading in a specific venue will automatically find the closest, lowest latency provider of the particular trade service.

From a client perspective, two separate connections can be treated as separate and distinct, or can be packaged together providing a single logical connection. In most systems, a message bound for the client will be tagged to a particular interface; by combining two connections the client is assured delivery of their messages in the eventuality of a disaster. The diagram below shows the net effect of the client session consolidation.



LANDmark routing software is stable, mature, and has been used in live trading systems for many years by high profile clients, providing the certainty required from a key trading component.