Fiorano
Enabling change at the speed of thought

www.fiorano.com

Message Driven SOA --- Enterprise Service Oriented Architecture

Fiorano Integration Middleware

Working with IBM WebsphereMQ

--- Atul Saini

AMERICA'S
Fiorano Software, Inc.
718 University Avenue Suite 212, Los Gatos,
CA 95032 USA
Tel: +1 408 354 3210
Fax: +1 408 354 0846
Toll-Free: +1 800 663 3621
Email: info@fiorano.com

EMEA
Fiorano Software Ltd.
3000 Hillswood Drive Hillswood Business Park Chertsey Surrey
KT16 0RS UK
Tel: +44 (0) 1932 895005
Fax: +44 (0) 1932 325413
Email: info_uk@fiorano.com

APAC
Fiorano Software Pte. Ltd.
Level 42, Suntec Tower Three 8
Temasek Boulevard 038988
Singapore
Tel: +65 68292234
Fax: +65 68292235
Email: info_asiapac@fiorano.com

Executive Summary

Several organizations have an installed base of IBM's Websphere MQ as their messaging middleware. Fiorano ESB (Fiorano Enterprise Service Bus) is a lightweight integration platform with support for WebSphere MQ as the underlying messaging layer. Fiorano ESB architecture is messaging independent, and allows for unfettered use of virtually any messaging service or other communication middleware, including JMS-compliant middleware. For organizations that prefer a solution that includes a messaging service like IBM MQ Series, Fiorano offers the Service Integration Suite that can use IBM MQ Series as the transport layer.

With support for MQSeries routes existing, WebSphere MQ customers can quickly leverage on the support provided by Fiorano ESB for:

- Visual distributed debugging of IBM MQ Series Peer to Peer Routes
- Real-Time Monitoring
- Network Management and Administration
- Application versioning and Configuration Management

Benefits to existing Websphere MQ customers:

- Leveraging existing Infrastructures
- Risk Mitigation
- Real Time Enablement
- Return on Investment

Fiorano ESB employs a brokered P2P architecture; key operations such as component execution, data-routing, workflow processing and data transformation/translation are performed at the network end points. Centralized servers perform other operations, such as Management, event-handling, security authentication and administration. Distributed processing and data routing leads to better scalability while the centralized controller provides single-point administration and management to the entire set of Web Services and other components taking part in the business process, defining rules for coordination within and across business units.

Fiorano ESB provides the flexibility such that message and data routing between various software services in a Fiorano ESB powered Business Process can happen through any of the two following ways:

- Pure Peer-to-Peer MQ Series Routes
- Peer-to-Peer Fiorano ESB Routes

As shown in the figure below, Fiorano ESB can be used as a lightweight integration/workflow solution on top of MQSeries. IBM's MQSeries has the largest market share of any messaging middleware solution and has defined messaging protocols and functionality. Fiorano ESB is a lightweight integration platform with support for WebSphere MQ as the underlying messaging layer.

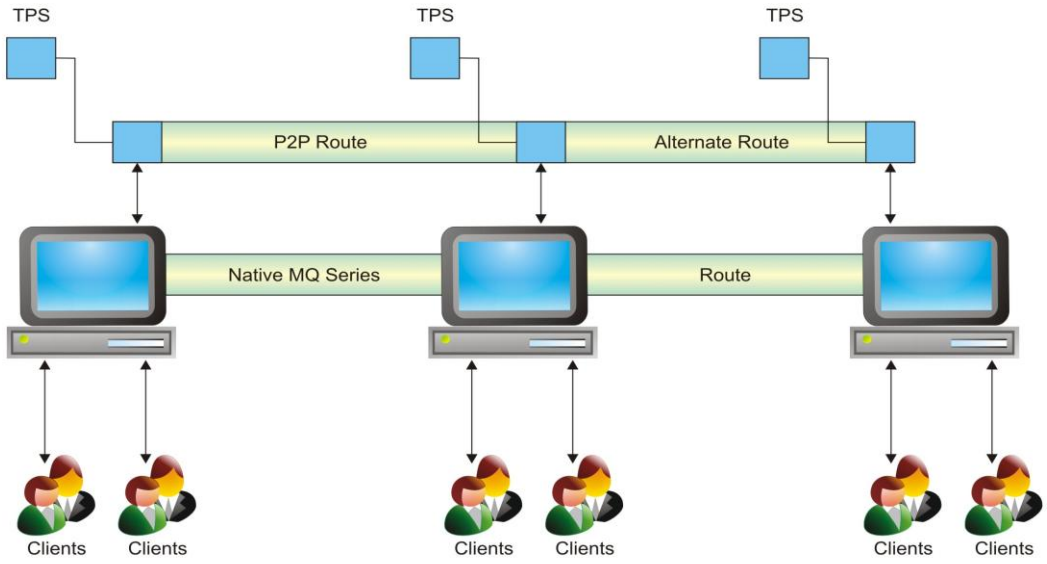

Figure 1: Fiorano ESB - lightweight integration/workflow solution on top of MQSeries

With support for MQSeries routes existing WebSphere MQ customers can quickly leverage on the support provided by Fiorano ESB for:

Visual distributed debugging of IBM MQ series Peer to Peer routes

Trouble-shoot your solution using a rich set of distributed debugging features. The Fiorano Business Service Composer includes an in-built functionality to debug distributed applications by inserting breakpoints between services that can be connected by native Peer-to-Peer MQ Series routes, thereby allowing users to single-step through the execution.

Real-time Monitoring

Fiorano ESB provides comprehensive support at both the infrastructure and Tools level to monitor services running over the entire network from any Fiorano ESB node on the network. This combined with event-based notification of critical errors in business flows provides Enterprise users with unmatched capabilities for monitoring Web Services and other legacy services connected by native Peer-to-Peer MQ Series routes or by Fiorano ESB Peer-to-Peer routes.

Network Management and Administration

The Fiorano Network Administration Tool provides comprehensive features to administer and control Enterprise Servers and MQ Series. This provides Network Administrators and Managers to View and Change remote server configuration settings; view event history and logs; set trace levels and monitor the performance of the participating servers.

Application Versioning and Configuration Management

Fiorano ESB provides comprehensive support for Component state labeling (for instance, “Development”, “QA”, “Staging”, “Production”, etc.), combined with the labeling of network end-points give deployment engineers control over the services running across the network.

Benefits

- **Leveraging existing Infrastructures**
  Fiorano ESB provides a truly distributed architectural framework developed from ground up allowing organizations to fully leverage their existing IT infrastructure investments. By allowing businesses to leverage existing messaging infrastructures like IBM MQ Series, Fiorano ESB precludes the need for additional high-end software and hardware requirements for composing complex distributed applications.

- **Risk mitigation**
  IT environments change continually, both through technology evolution and through abrupt changes in business strategy and structure. Fiorano believes that integration should employ standard interfaces and in-place application middleware, rather than force proprietary alternatives. Customers should have free use of de facto standard messaging services like WebSphere MQ or JMS like FioranoMQ. This principle ensures continued system viability in the face of change, and enables maximum advantage to be realized from existing IT infrastructure.

- **Real Time Enablement**
  The highly scalable and reliable architecture of Fiorano ESB is guaranteed to meet the Real Time Enterprise's stringent delivery times for rapid deployment of integration projects. This provides the business with instant agility and an ability to respond to changes in business processes to meet the competitive challenge of the marketplace.

- **Return on Investment**
  The Integration Suite's comprehensive Business Process Orchestration and execution capabilities combined with the reliability of IBM MQ Series as the base transport layer can provide immediate ROI to existing WebSphere MQ customers as now they can compose distributed applications by simply connecting pre-built service instances on a visual canvas using Fiorano ESB. Fiorano's complete integration infrastructure stack allows businesses to take steps toward integration projects in stages.

Learn more about Fiorano ESB and Fiorano Integration Suite or review our Customer Success Stories to see how you can leverage your existing infrastructure today.

About Fiorano Software

Fiorano Software (www.fiorano.com) is a leading provider of enterprise class business process integration and messaging infrastructure technology. Fiorano's network-centric solutions set a new paradigm in ROI, performance, interoperability and scalability. Global leaders including Fortune 500 companies such as Boeing, British Telecom, Credit Agricole Titres, Lockheed Martin, NASA, POSCO, Qwest Communications, Schlumberger and Vodafone among others have used Fiorano technology to deploy their enterprise nervous systems.