TIBCO Enterprise Message Service Overview

Emmanuel Marchiset

Architect – TIBCO France
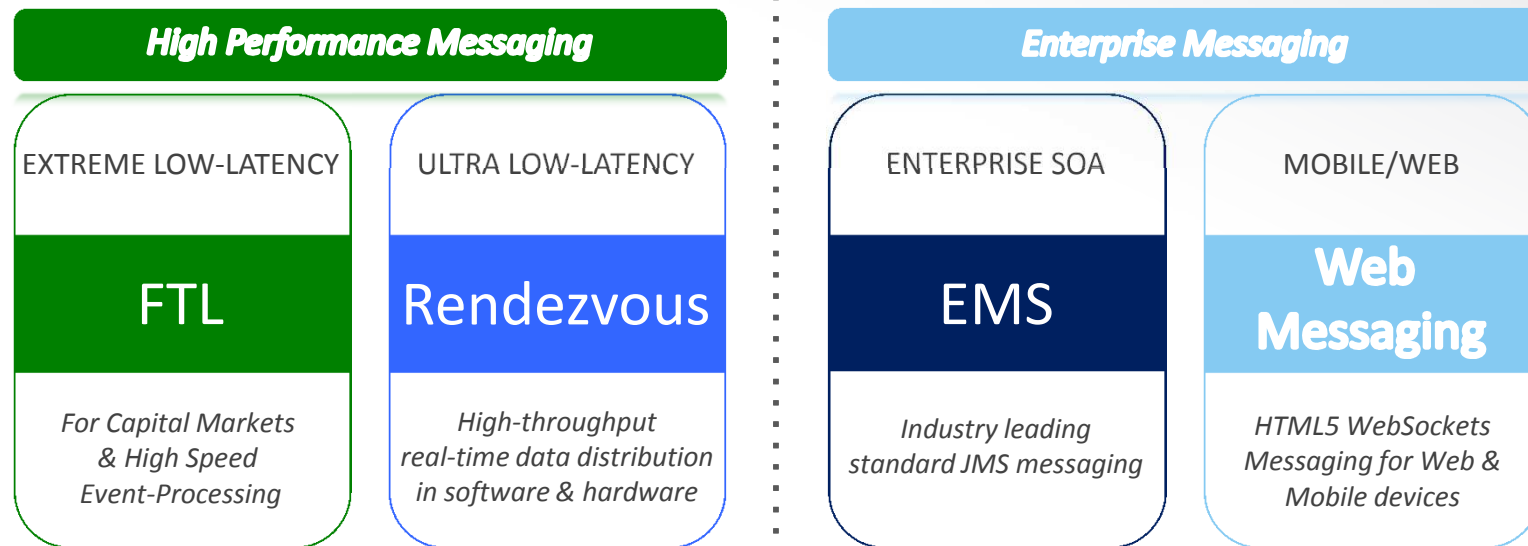
Market Demand for Messaging

- TIBCO is seeing two unique areas of messaging
  - High Speed / Ultra Low Latency Messaging for data distribution and high performance applications
  - Enterprise Wide / Standard-based Messaging for front to back office integration

- Requirement for direct interoperability and integration between the two areas

TIBCO's Messaging Portfolio

High Performance Messaging

EXTREME LOW-LATENCY

FTL

For Capital Markets & High Speed Event-Processing

ULTRA LOW-LATENCY

Rendezvous

High-throughput real-time data distribution in software & hardware

Enterprise Messaging

ENTERPRISE SOA

EMS

Industry leading standard JMS messaging

MOBILE/WEB

Web Messaging

HTML5 WebSockets Messaging for Web & Mobile devices

{ 20+ YEARS OF LEADERSHIP AND INNOVATION - NATIVE INTEGRATION ACROSS THE PORTFOLIO }

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TIBCO Enterprise Message Service

- Leading J2EE messaging Solution
  - JMS (Java Message Service) 1.1
  - Message driven beans (MDB)
- Native Support for C based applications
- Native Messaging for .NET
  - Fully managed C#
- Integrated TIBCO backbone
- Proven application adapters
  - IBM MQ, Siebel, SAP, etc...
- Broad mainframe support and connectivity
  - Native C and COBOL client support
  - Seamless CICS, IMS support
 - Z Linux support

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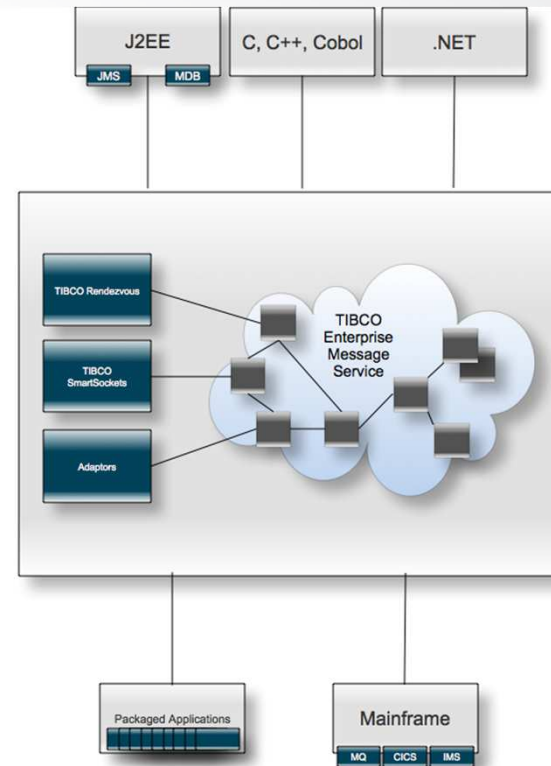
Providing Multiple Levels of Delivery Semantics

- **Complete delivery semantics**
  - Publish-subscribe and queuing support
  - Reliable (TCP and Multicast), guaranteed, local transactional and distributed transactional QOS
  - Synchronous and asynchronous persistence
- **Optimized use of network resources**
  - Network optimizations for LAN versus WAN routing
  - Rules based (selectors) for routing based on business requirements
- **Enhanced service quality and stability**
  - Built in configurable flow control
  - Built in message expiration functionality
  - Administrative removal of messages
- **Bridging**
  - Forward messages from a queue / topic to one or multiple queues / topics

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TIBCO Enterprise Message Service Delivery Semantics
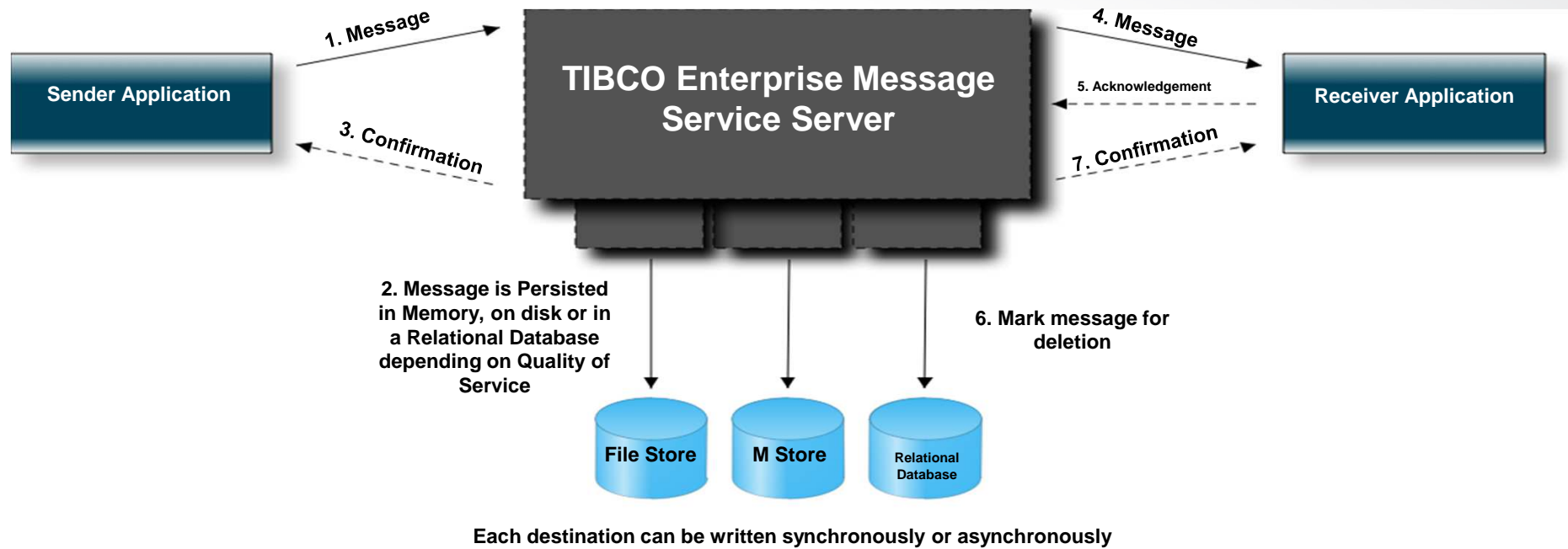
TIBCO Enterprise Message Service Routing

- **Single-hop Routing Zones (Local Routing)**
  - A Single-hop zone restricts message forwarding to only one server hop away from the publishing client's server
- **Multi-hop Routing Zones (Enterprise/Wan Routing)**
  - A Multi-hop zone allows all topic messages to flow to all servers connected within the multi-hop zone
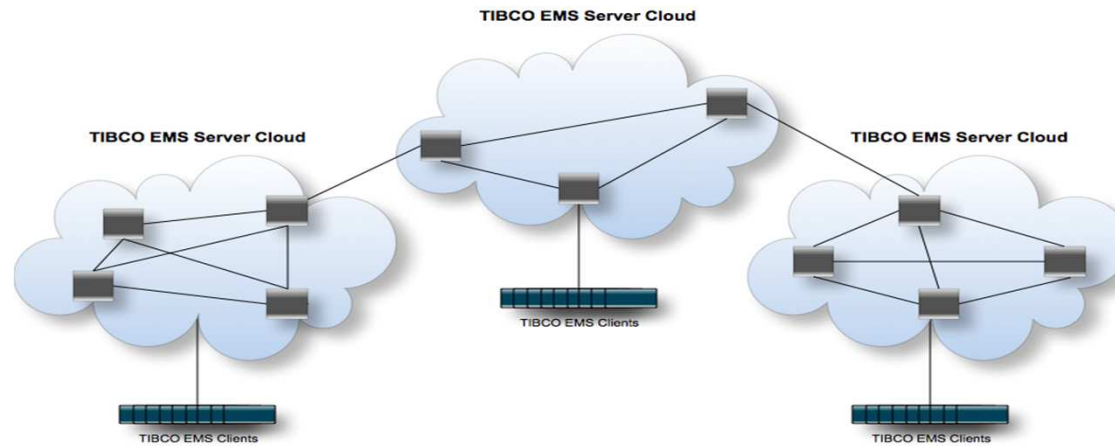
Providing the Broadest Security

- **Server-based authentication and authorization**
  - Customizable authentication and authorization provide through JAAS/JSSE
- **SSL support for connections**
  - Client to Server connections
  - Server to Server connections
  - Uses OpenSSL, JSSE or Entrust
- **Support for certificates**
  - PEM, DER, PKCS7, PKCS8, PKCS12 and Java Key Stone
- **FIPS 140-2 Compliant**

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TIBCO Enterprise Message Service Fault Tolerance
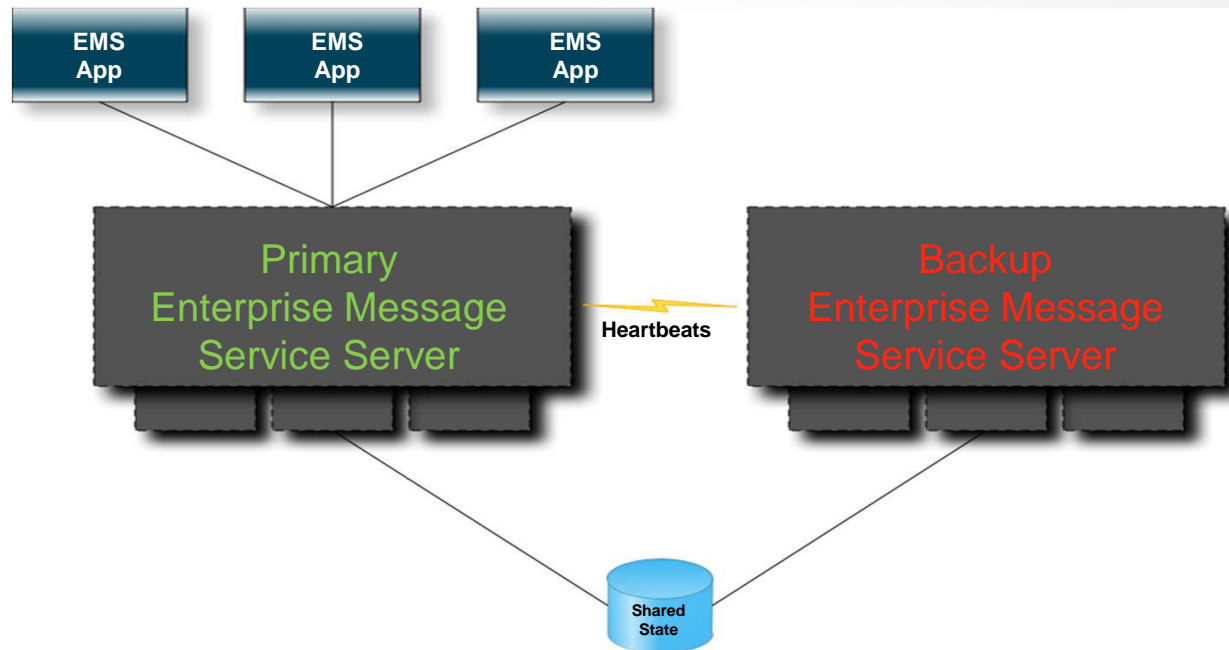
TIBCO Enterprise Message Service
Monitoring & Management

- TIBCO Enterprise Message Service Admin APIs
- TIBCO Enterprise Message Service Central Administration Server
  - Centralized administration for managing groups of EMS servers
  - GUI for configuring and managing servers (with access control)
  - Configuration tracking and management in subversion
  - Configuration templates for simplified configuration construction
- TIBCO Hawk
- TIBCO Administrator
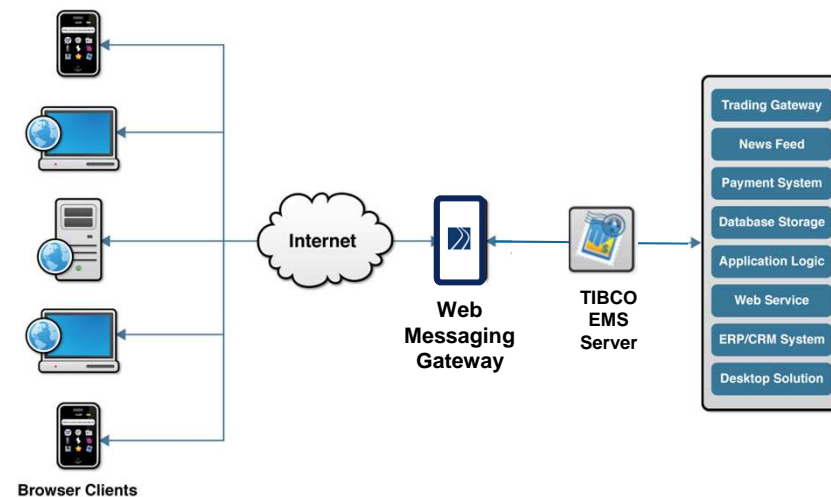- TIBCO Enterprise RTView
  EMS Monitor
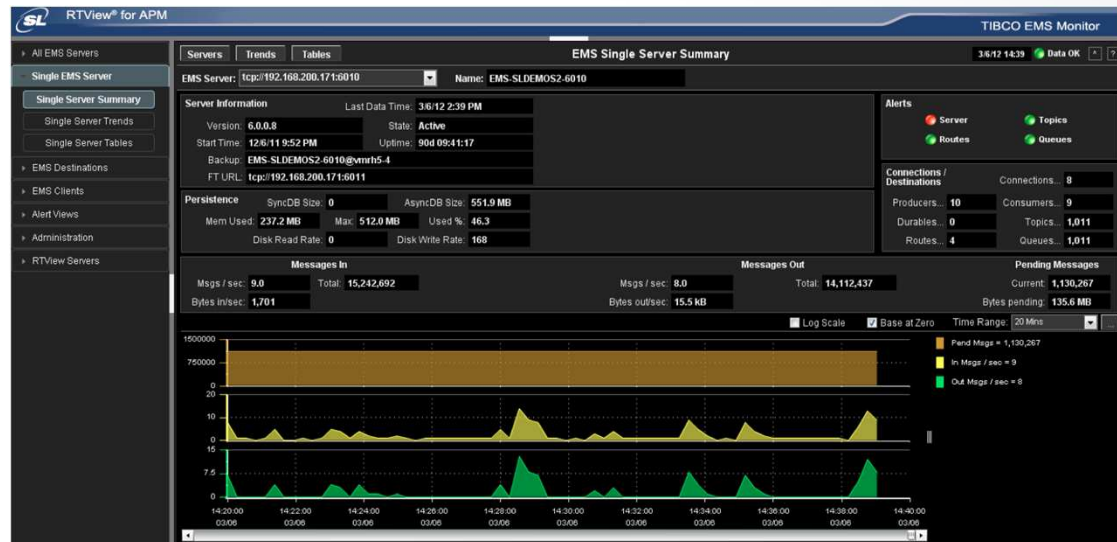
How we differentiate from MQSeries

- **More flexible / agile solution**
  - Flexibility in administration
- **.NET integration**
  - WCF channel
  - 'JMS Like' API for C#
- **Part of TIBCO ESB stack**
  - TIBCO Adapters / TIBCO BusinessWorks / TIBCO Administrator
- **WEB Messaging**
- **EMS Appliance**

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WEB Messaging
## *Extending TIBCO EMS to the Web*

- Build for the real time WEB
  - HTML5 WebSocket ready
  - Full duplex, 2-way messaging
  - Much less overhead than HTTP
- Reduced TCO & Faster Time to Market
  - Single API – write once, run everywhere
  - Supports legacy browsers transparently
- Enterprise-grade, Web-Savvy
  - Integrates natively with TIBCO EMS
  - Extend Enterprise 3.0 to real-time web
- Use cases
  - Financial Services : Powerful Web-based trading platforms
  - Logistics : Container management, Shipping, Supply Chains
  - Gaming
  - Customer Loyalty : Real-time contextual offers in-store

Browser Clients

Web Messaging Gateway — TIBCO EMS Server

Trading Gateway
News Feed
Payment System
Database Storage
Application Logic
Web Service
ERP/CRM System
Desktop Solution

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TIBCO Enterprise Message Service Appliance
All the Power without the overhead

- Complete EMS functionality
- Direct integration with Software based clients and servers
  - No application or library change for existing TIBCO EMS clients
  - Supports native EMS server-to-server routing
- A highly available, dual-deployment solution for guaranteed message distribution
  - No requirement for additional third party solutions
    - Cluster File Systems / Cluster Servers
    - Storage (SAN/NAS/RDBMS/SSD)
- Support for direct connection for high performance, critical applications
- Fully compatible with existing EMS deployments
  - Routing, Security, Configuration, Monitoring
- Create mixed environments with traditional EMS Software Servers and Appliances
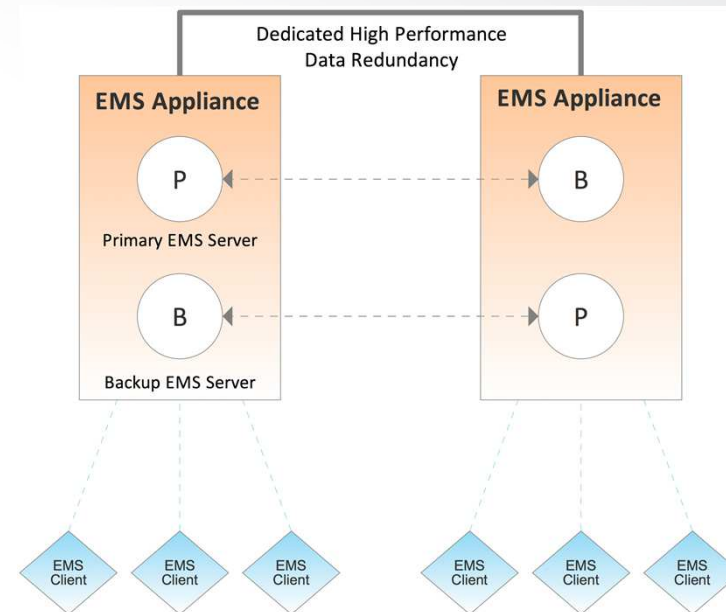
A Completely Stand Alone, Drop in Solution for Enterprise Messaging

TIBCO EMS Appliance Benefits
All the <u>Power</u> without the <u>Overhead</u>

Cost Savings

- No requirement for additional third party solutions
  - Cluster File Systems / Cluster Servers
  - Storage (SAN/NAS/SSD)
- No need of any server-type hardware machines
- Lower operational cost
- Fast provisioning
- Short Time To Production
- Low power consumption

Performance

- Performance and Sizing Guide
- TIBCO controlled and fine-tuned appliance model
- State-of-Art hardware platform
- OOTB data-redundant FT setup
- Direct application connectivity
- Active-Active Deployment
- Full on-board redundancy of moving parts

TIBCO Enterprise Message™ Service Appliance

A Completely Stand Alone, Drop in Solution for
Enterprise Messaging