



Introducing WSO2 ESB 1.7

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Agenda

- Overview
 - Pragmatic, Performant SOA
 - What is the WSO2 ESB and what is in 1.7?
- Apache Synapse
- Who is using Synapse and WSO2 ESB?
- Financial Industry support
- Clustering support
- Performance and scalability

Pragmatic and Performant SOA

Fast, stable, best of breed can still be easy-to-use

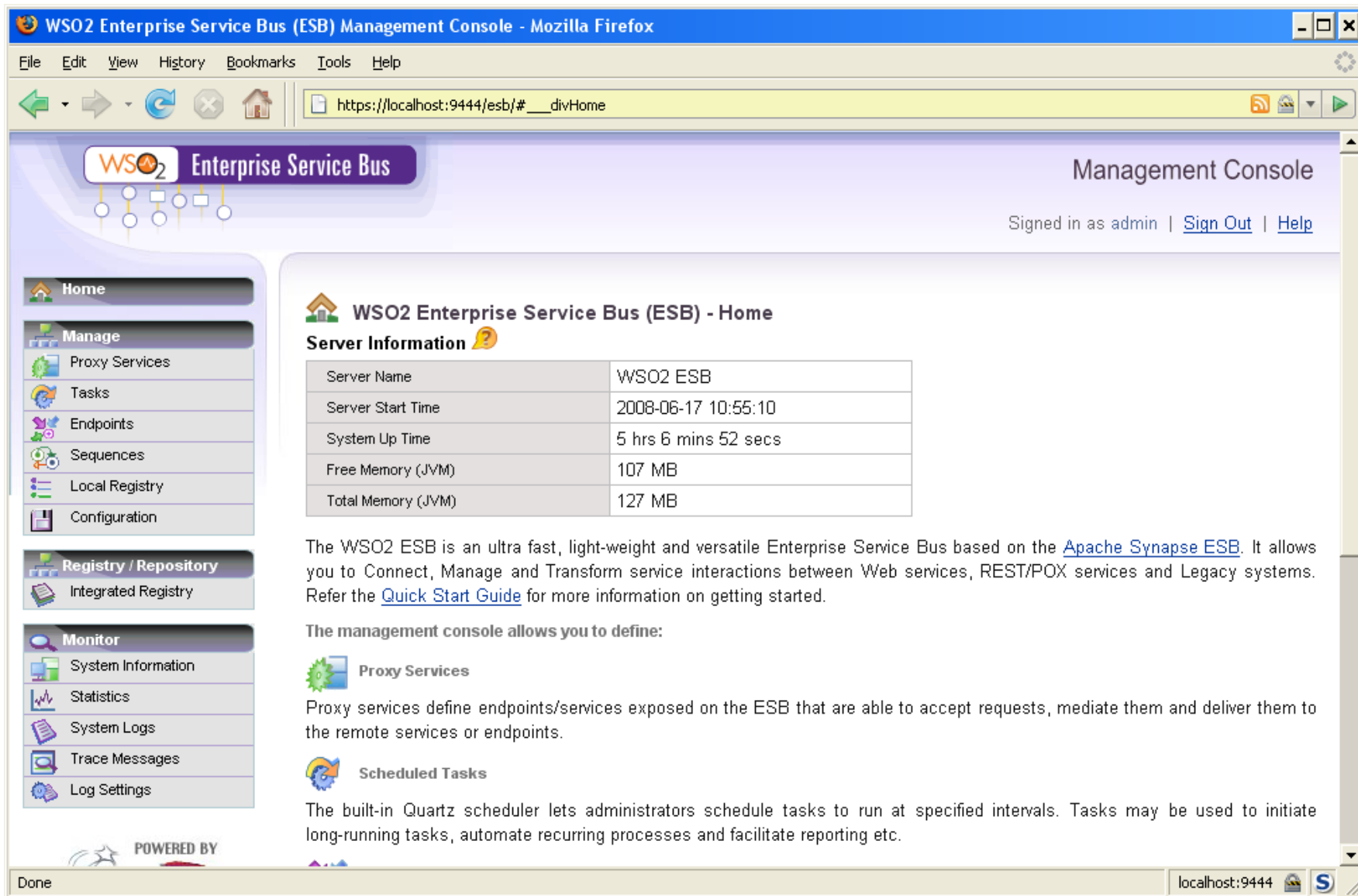
■ Pragmatic

- Easy to use web-based console
 - Configure, Administer, Monitor
- Enable existing systems to connect simply
 - EDI, Flatfile, Database, XML, SOAP, MQSeries
- Clean simple easy to understand model
 - Proxy Services + Sequences

■ Performant

- Best in breed performance
- Streaming support:
 - Megabyte messages handled in constant memory
- Non-blocking IO design:
 - 000s of concurrent connections without dropping messages

WSO2 ESB 1.7



WSO2 Enterprise Service Bus Management Console

Signed in as admin | [Sign Out](#) | [Help](#)



WSO2 Enterprise Service Bus (ESB) - Home

Server Information

Server Name	WSO2 ESB
Server Start Time	2008-06-17 10:55:10
System Up Time	5 hrs 6 mins 52 secs
Free Memory (JVM)	107 MB
Total Memory (JVM)	127 MB

The WSO2 ESB is an ultra fast, light-weight and versatile Enterprise Service Bus based on the [Apache Synapse ESB](#). It allows you to Connect, Manage and Transform service interactions between Web services, REST/POX services and Legacy systems. Refer the [Quick Start Guide](#) for more information on getting started.

The management console allows you to define:

- 
Proxy Services
 Proxy services define endpoints/services exposed on the ESB that are able to accept requests, mediate them and deliver them to the remote services or endpoints.
- 
Scheduled Tasks
 The built-in Quartz scheduler lets administrators schedule tasks to run at specified intervals. Tasks may be used to initiate long-running tasks, automate recurring processes and facilitate reporting etc.

POWERED BY

Done localhost:9444

Apache Synapse and WSO2 ESB

- Apache Synapse is the core engine
 - Routing, mediation, management, clustering
- WSO2 ESB adds:
 - Web-based management console
 - Integrated FIX support, Smooks library
 - Integrated Registry and Repository
 - Full commercial support subscription



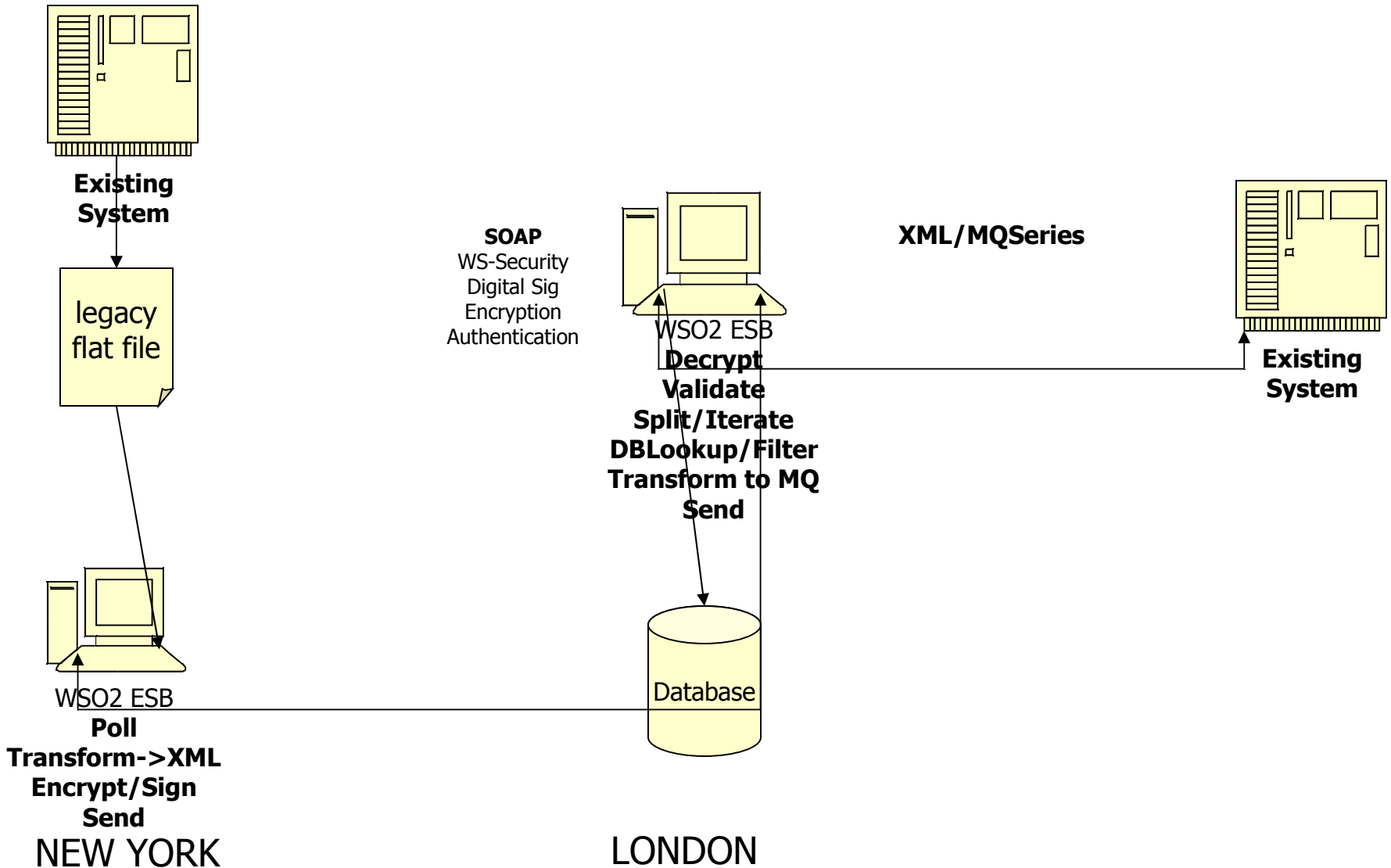
Who uses it?

- Apache Synapse
 - US Army Surface Deployment and Distribution Command
 - A global top 3 automotive manufacturer
 - One of the largest banks in the AsiaPac/MiddleEast region
 - Major US Online matchmaking website
 - Sri Lankan Government
 - Embedded in a network appliance from a major telecoms company
- WSO2 ESB
 - Concur - Web 2.0 expense management
 - One of the top two Californian Hospital/HMOs
 - Leading US Road Haulage management companies
 - Worldwide leader in mobile content provision
 - Wall Street bond trading company
- and many others

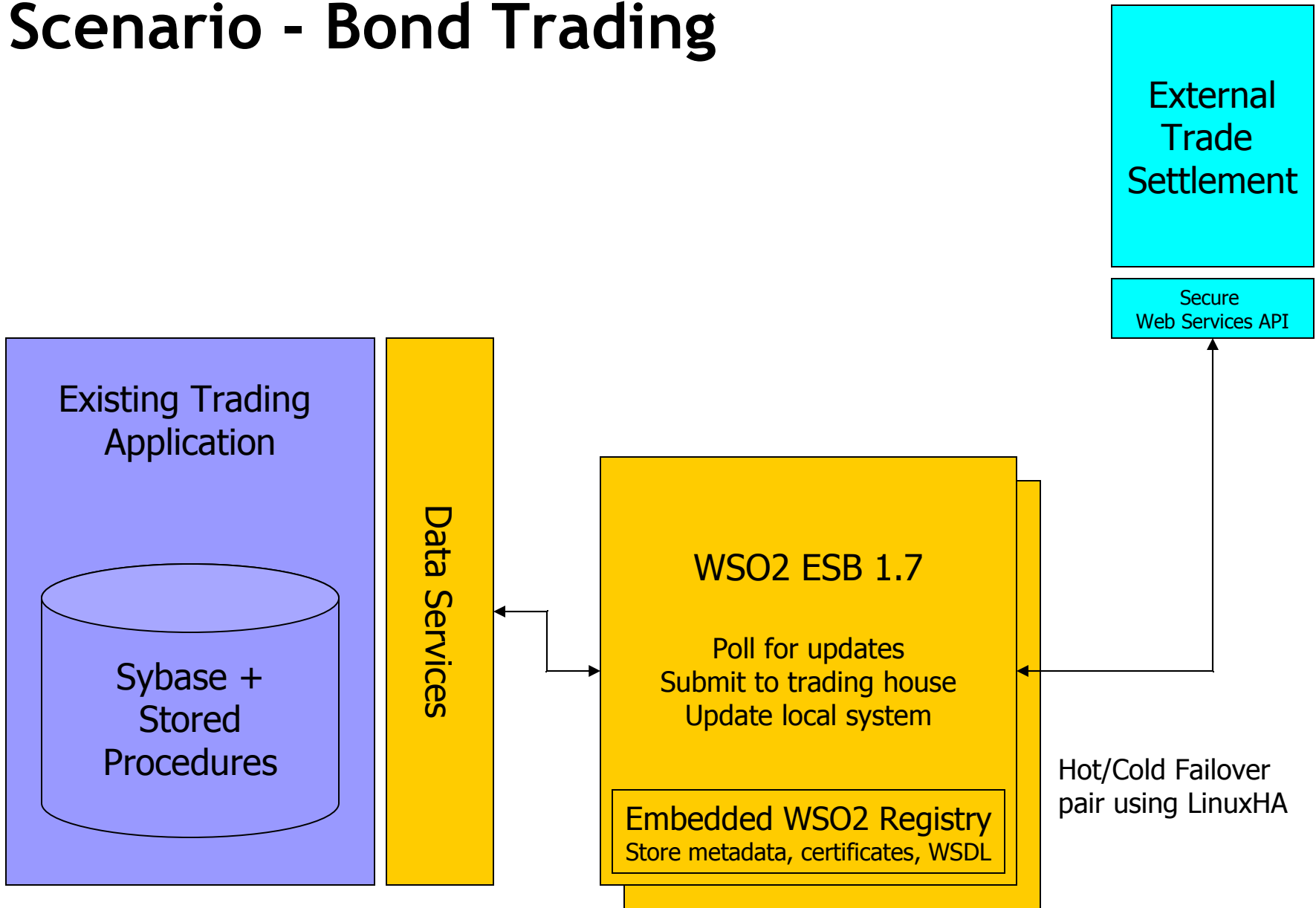
Connect, Manage, Transform

- **Transports and formats:**
 - Binary, CSV, Record, EDI formats
 - (S)FTP, MQSeries, AMQP, HTTP(S), Email, FIX, Hessian, TCP, Atom feed
- **Management**
 - Throttle, cache, load-balance, content-based routing
 - Statistics gathering
 - Error handling
 - JMX management
- **Transformation**
 - Smooks library (EDI, Record format), CSV, Flatfile
 - XML transformation - XSLT, XQuery, E4X

Scenario - Financial services process



Scenario - Bond Trading



Hessian support

- Fast binary Web services protocol
- Carried over HTTP
- <http://hessian.caucho.com/>
- Routing, failover, load-balancing
- Based on HTTP headers
- Streaming support for Hessian messages

FIX Support

- Support for the Financial Industry FIX protocol:

- <http://fixprotocol.org>

- Based on the QuickFix/J library 

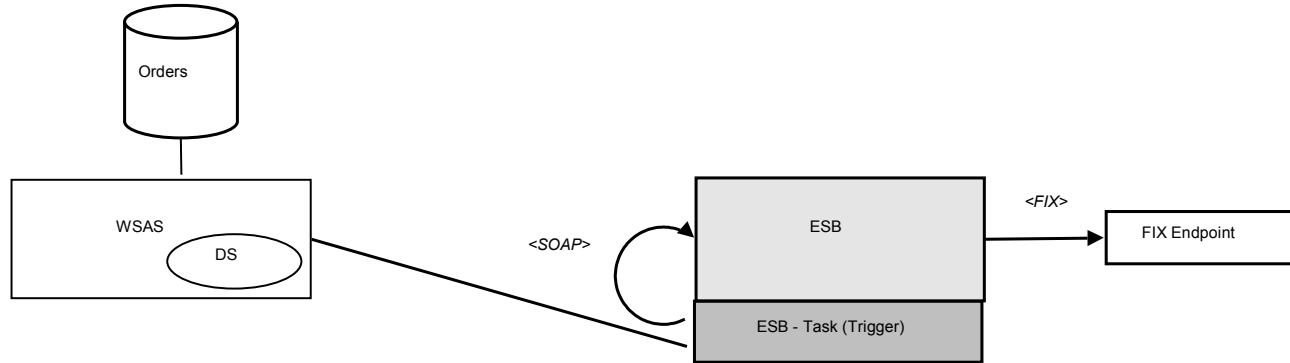
- <http://www.quickfixj.org/>

- ESB transport allows FIX to be integrated with other systems and transports, including Files, FTP, SOAP, XML/MQ, etc 

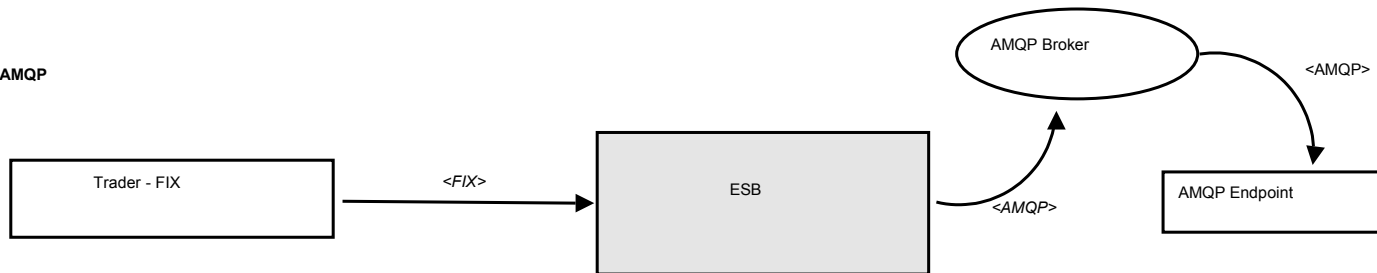
- In addition bridging between different FIX sessions is possible

FIX Scenarios

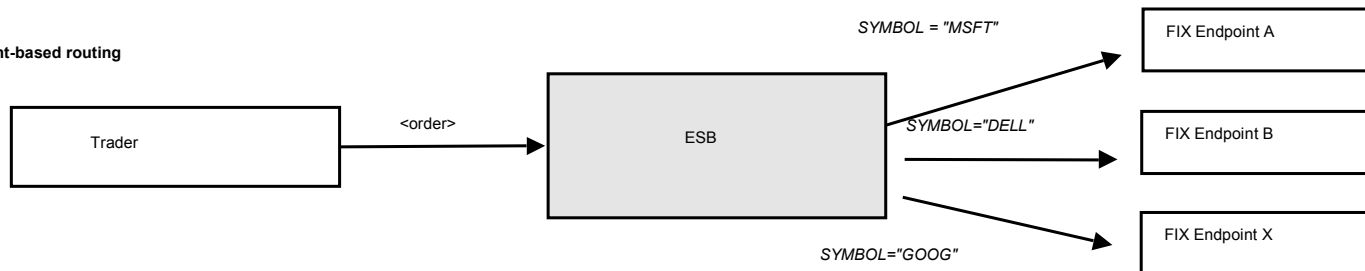
Data Services to FIX



FIX to AMQP



Content-based routing

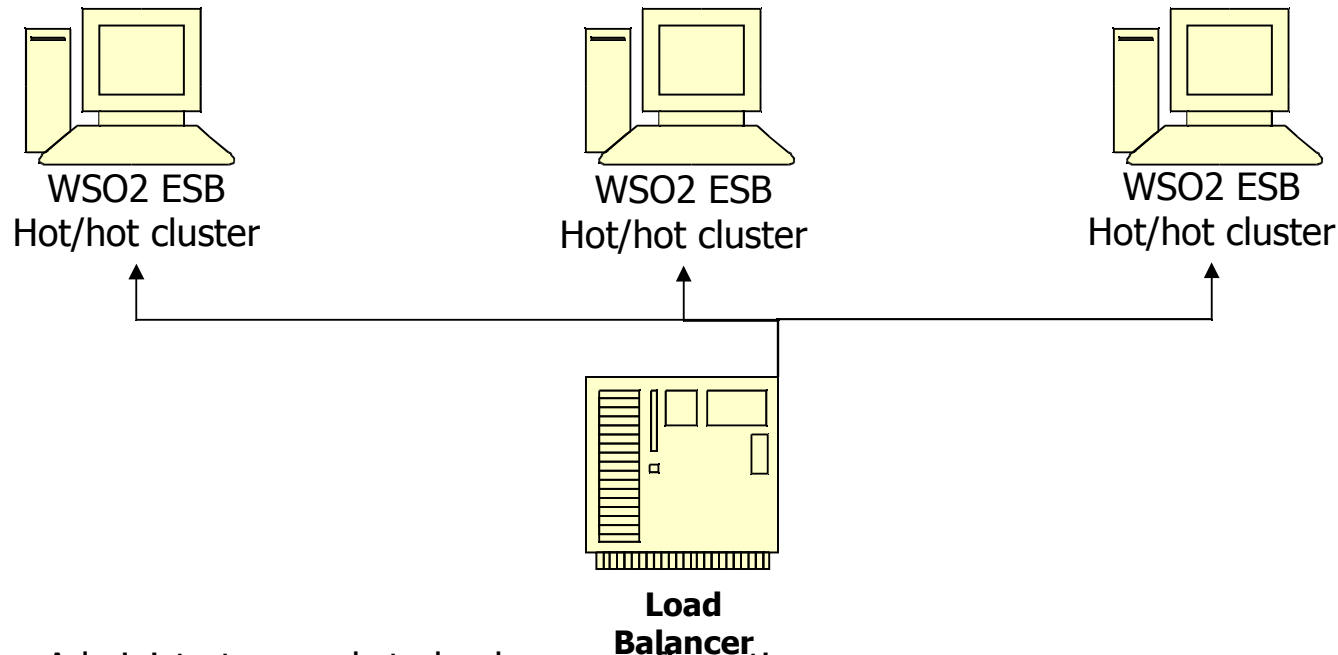


AMQP Support

- AMQP (<http://www.amqp.org>) is a pure Open Standards messaging protocol
 - WSO2 is a member of the working group
- Equivalent to Tibco, MQSeries, Sonic
 - But with a well-defined published protocol
 - Interoperable across implementations
- Apache Qpid is a high-quality implementation with both C++ and Java brokers
 - Industry leading performance
 - <http://incubator.apache.org/qpid>
- WSO2 ESB is tested with Apache Qpid and documented:
 - <http://wso2.org/library/3663>
 - More documentation coming!

Improved clustering support

Continuous availability



1. Administrator needs to load new configuration
2. Updates configuration for each machine
3. Using JMX sends "Graceful Restart" to machine 1
4. Machine 1 stops accepting new work
5. Load balancer automatically directs new messages to 2&3
6. When machine 1 detects all current messages are sent, it restarts with the new configuration
7. Load balancer starts sending work to machine 1 again
8. Repeat for 2 and 3.

Improved stability and performance

- Completely streaming behaviour for routing
 - Supports large messages (Mb)
 - At high concurrency
 - In constant memory
- Non-blocking support means that we handle 000s of concurrent TCP/IP connections without dropping
- In previous versions we occasionally lost large HTTP messages (~1 in 400,000)
 - Now we lose 0 in 1,000,000
- Zero memory leaks (to the best of our knowledge!)
- We are re-running performance tests and will publish in due course

WSO2 Registry 1.1

SOA Governance

WSO2 Registry
Version 1.1(Beta)

Resources People Sign in

Advanced Search

About

- User guide
- File a bug
- Get support
- Get training

NEWS

Online training
Introduction to WSO2 Registry.
Register now

Resource

root /

Created:	14 Jun 10:06:32	Author: system
Last Updated:	14 Jun 10:06:32	By: system
Media Type:	Unknown	
Permalink:	Collection are not version automatically.	
Versions:	View versions	
Rating:	★★★★★ (0.0)	
Properties:		
Description:	<input type="text"/>	

Entries

Tags

Comments

Lifecycle

Dependencies

Done

Registry in ESB

- The WSO2 Registry *Core 1.1* replaces the built-in registry inside the ESB
- Better stability, performance
- In addition, you can connect the ESB to the full Registry product
 - Enables tagging, rating, comments
 - Full UI for browsing, dependency management
 - WSDL, WS-I Validation

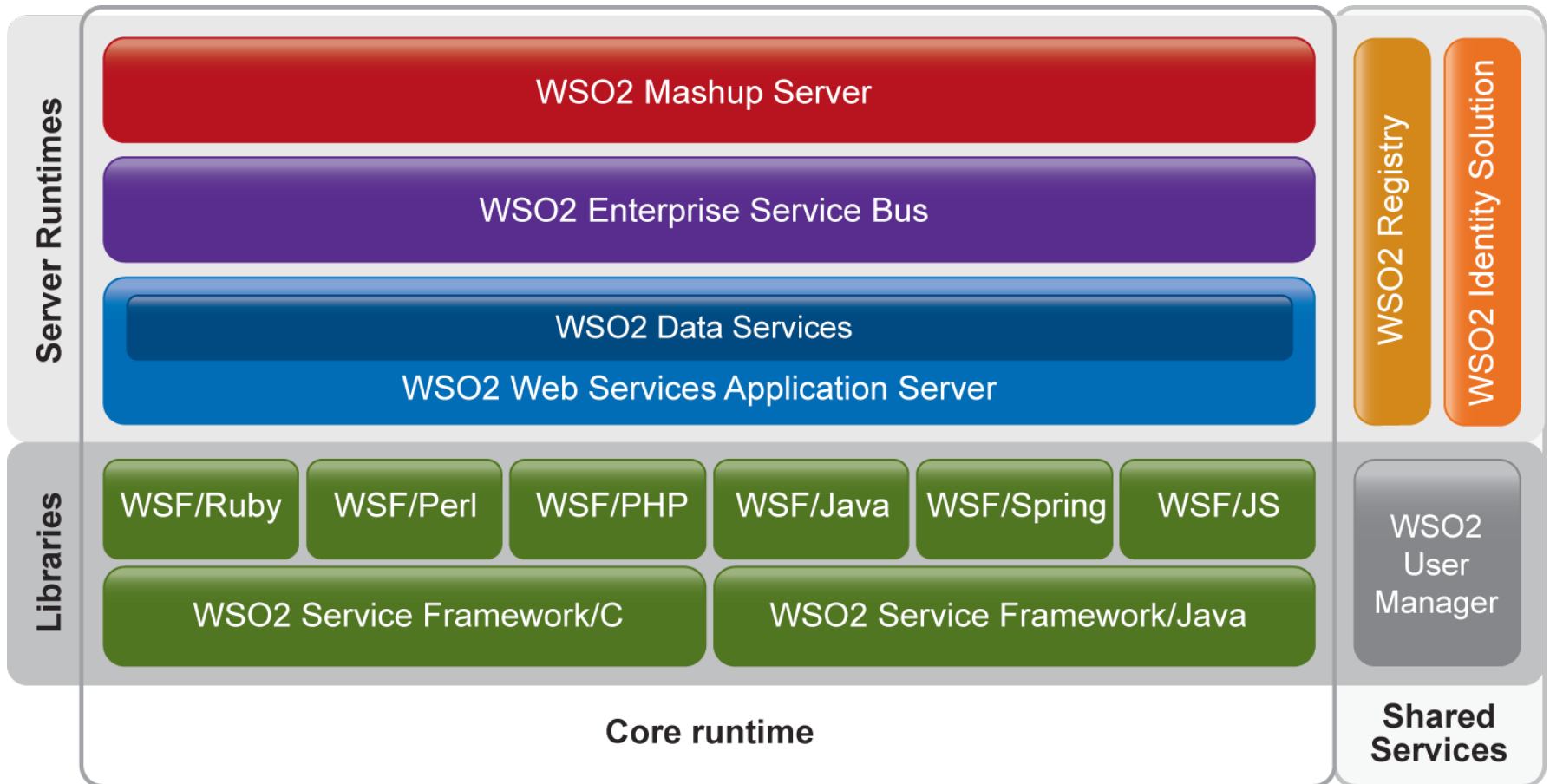
Services, Support and Training

- Consultancy
 - Architecture, mentoring, hands-on, quickstart
 - By experts in SOA and ESB
- Training
 - Live Online training
 - Onsite training
- Support and Subscription
 - Online support site:
 - <http://support.wso2.com>
 - Development support
 - Help configuring, coding, design-time, architectural advice
 - Production subscription
 - Critical fixes, 24x7x365, essential support to keep your business running

Subscriptions

	BASIC	PREMIUM
Support Times	9am - 5pm	24x7x365
Response Times	8 hours	1 hour
'CritSit'	-	Yes
Incidents	Unlimited	Unlimited
Knowledge Base	Free Content only	Premium Content
Training	2 online courses	4 online courses
Indemnification	Available	Available
Email/Phone Support	Email	Email + phone
Contacts	4	Unlimited

WSO2 Enterprise SOA platform



Further Webinars

- Example integration scenarios with WSO2 ESB 1.7
 - July 1st
- Using the WSO2 ESB and FIX - Supporting Financial Messaging
 - July 15th
- Complex Event Processing with Esper and WSO2 ESB
 - July 29th

<https://wso2.on.intercall.com/confmgr/index.jsp>