



IBM Software Group

IBM Integration Bus v9.0 – Introduction and What's new?

Kailash Peri (perik@us.ibm.com)

Randy Miller (mrandy@us.ibm.com)

Advisory Software Engineers L2 Support WebSphere Message Broker

11 July 2013



WebSphere® Support Technical Exchange



Agenda

- What's in a name?
- Brief History
- New Features in IBM® Integration Bus
 - ▶ Simplicity & Productivity
 - ▶ Business Rules
 - ▶ .NET Support
 - ▶ Graphical Mapping
 - ▶ Web Services
 - ▶ Universal Connectivity for SOA
 - ▶ Dynamic Operation Management
 - ▶ High Performance & Scalability
 - ▶ Platforms & Environments
 - ▶ Troubleshooting and support

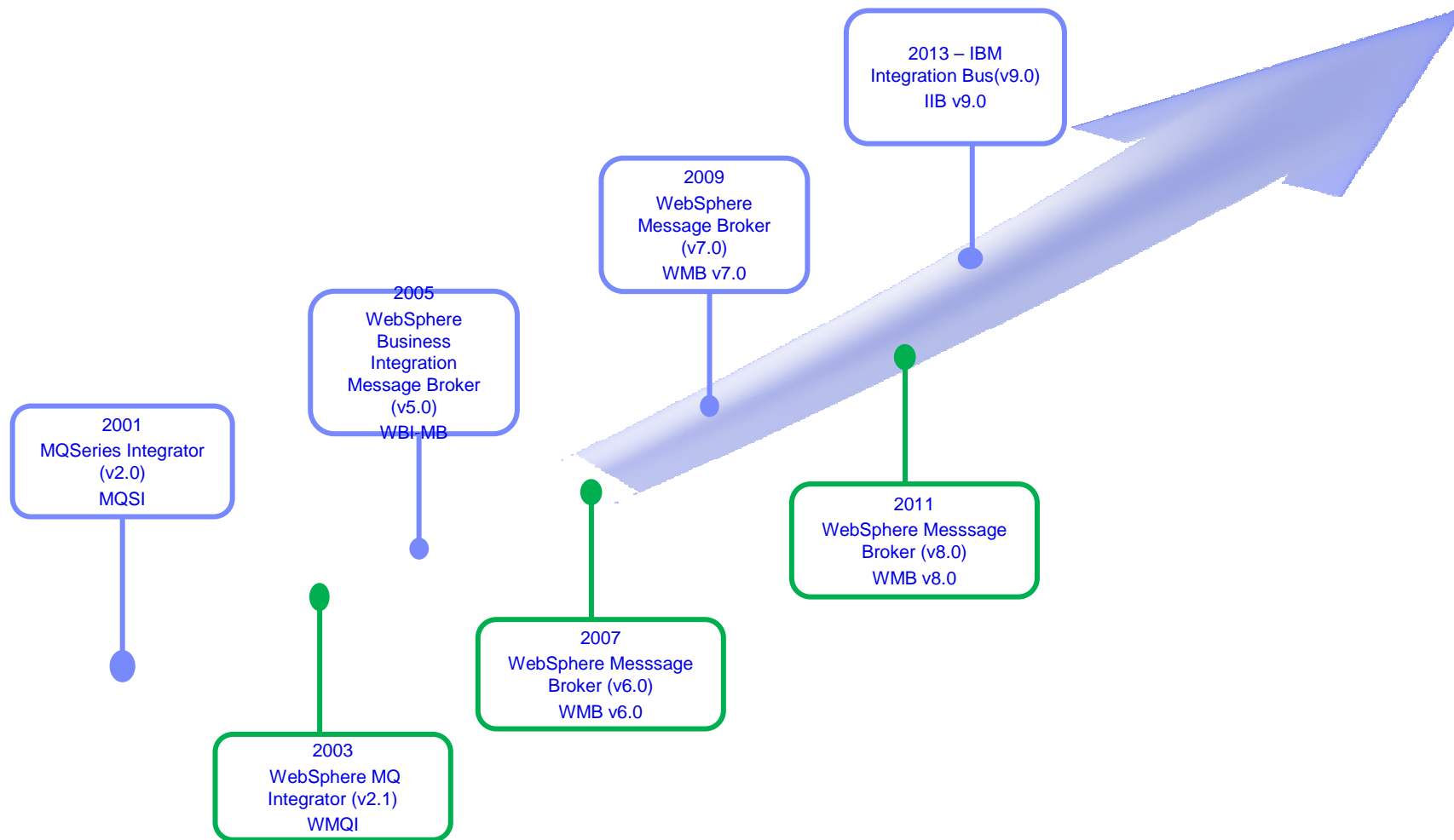
What's in a name?



"What's in a name? That which we call a rose
By any other name would smell as sweet."

- Juliet

History



Simplicity and Productivity

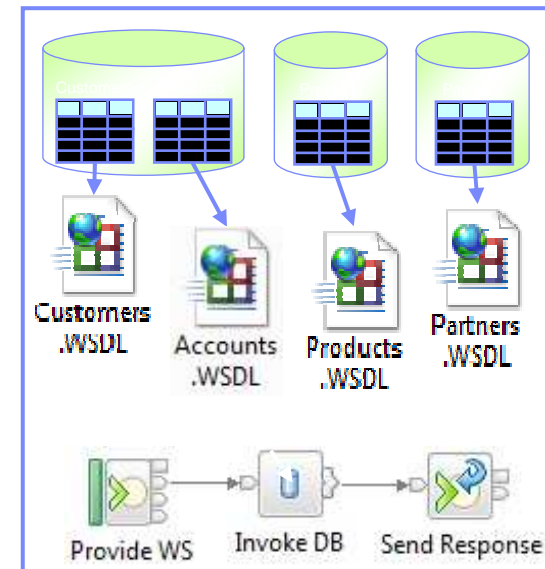
- ▶ Making it easier and quicker to develop and manage integration solutions
 - Learn, Develop, Deploy, Manage quickly and easily
 - Service Discovery
 - Performance Analysis
 - Business Rules



Service Discovery

▶ Database Service

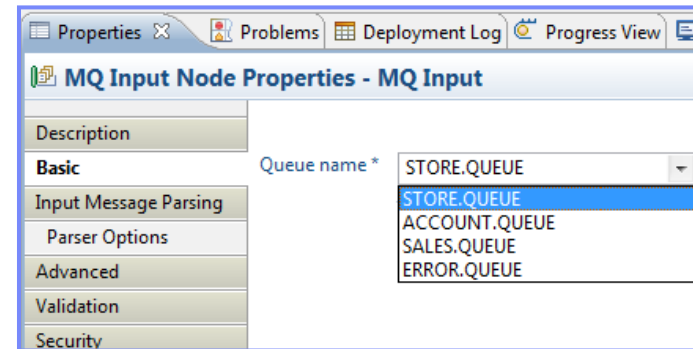
- Discovered/defined using IIToolkit
- Defines an interaction between IIB and a database.
- DnD onto compute node
- Enables efficient reuse across multiple nodes.



Service Discovery

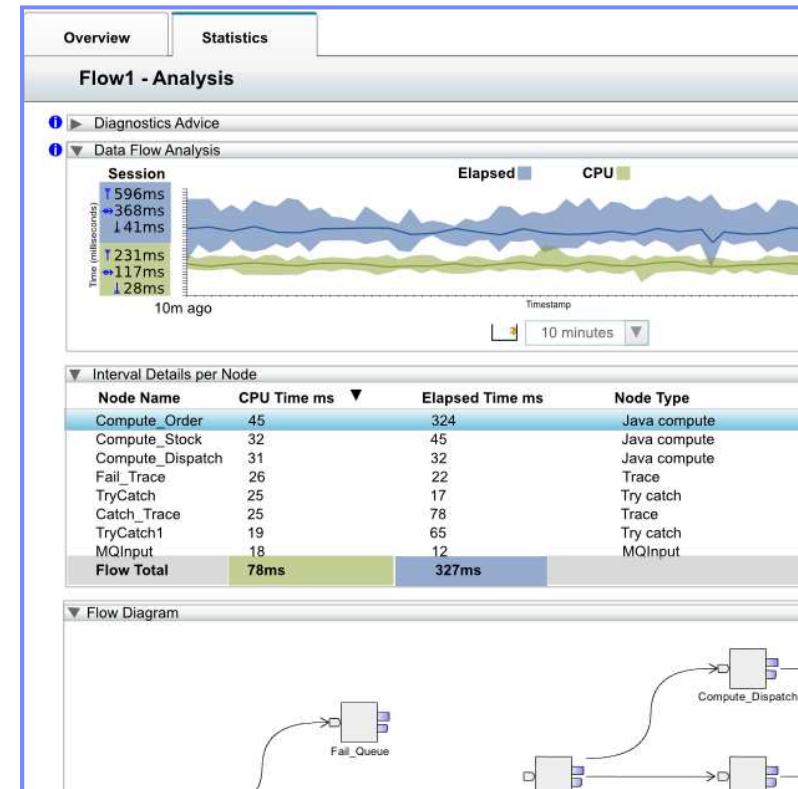
▶ MQ Service

- Service definitions allow you to make best use of available resources
- Discovered/defined using IIToolkit
- Discovers artifacts from WebSphere® MQ Qmgrs
- DnD onto MQ Node to configure the node using the MQ Service properties
- New and existing nodes will be updated over time



Performance Analysis

- ▶ Message flow statistics via a Web UI
- ▶ Analyse integration performance in real-time
- ▶ Export collected data as CSV for Excel import etc.
- ▶ Flexible display includes integration diagram & data tables
 - Drill down to understand detailed integration behaviour
- ▶ Supported on a variety of browsers: IE10, Firefox, Safari...

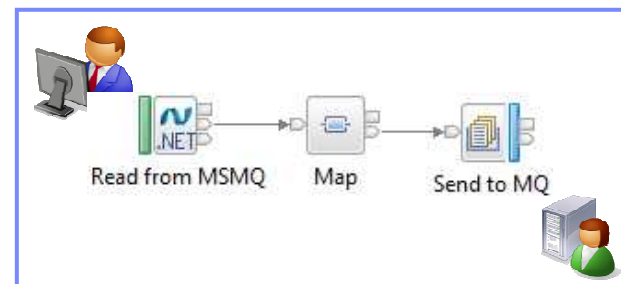


Business Rules

- ▶ Business Decision Services using WODM technology for business rules integration
- ▶ Create Decision Service to process messages
- ▶ Apply Business rules dynamically to update business logic

.NET Support

- New patterns and samples for MS Dynamics and MSMQ
 - ▶ SAP CRM pattern for customer account synchronization
 - Map account operations between BAPI & CRM Entities
 - ▶ Advanced CRM pattern enables dynamic graphical mapping
 - ▶ New customizable sample for 2-way MSMQ and MQ exchange

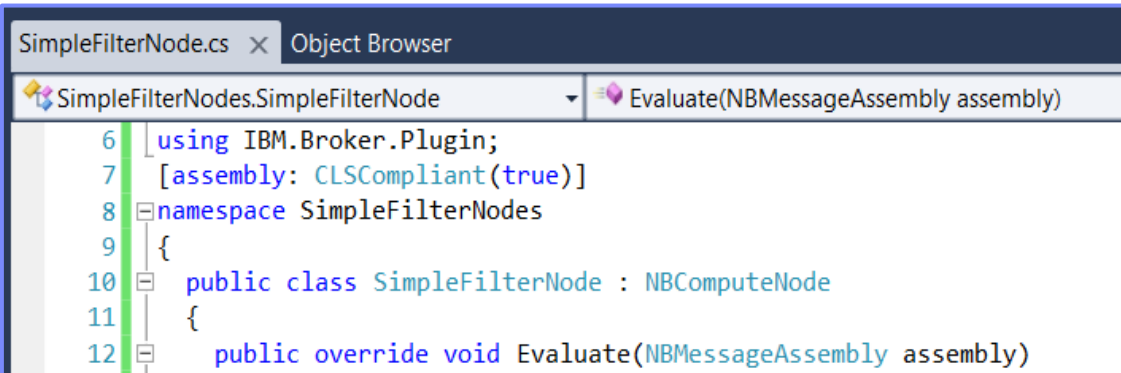


.NET Support (contd.)

- New and enhanced nodes for .NET programmers
 - ▶ .NET Input node allows developers to initiate integration logic from any .NET system
 - e.g. receive request from Dynamics CRM, AX, periodically read EXCEL file...
 - Highly customizable polling and trigger mechanisms
 - ▶ .NET service enablement for mobile applications

- ▶ Developer customizations

- Personalize .NET nodes
- Custom user properties
- Simple node capture



```
SimpleFilterNode.cs x Object Browser
SimpleFilterNodes.SimpleFilterNode Evaluate(NBMessageAssembly assembly)
6 using IBM.Broker.Plugin;
7 [assembly: CLSCompliant(true)]
8 namespace SimpleFilterNodes
9 {
10 public class SimpleFilterNode : NBComputeNode
11 {
12 public override void Evaluate(NBMessageAssembly assembly)
```

Graphical Mapping

- ▶ Ability to call a stored procedure from a graphical data map
- ▶ Use the Database Routine transform to call a stored procedure in a database
- ▶ Database routine transform / Return transform to construct mappings

Web Services

- ▶ Web services enhancements improve security and reliability
 - Internationalized Domain Names (IDNs)
 - SSL client authentication selection key
 - Inbound and Outbound support for multiple personal certificates
 - HTTP BasicAuth support
 - Support for multiple Kerberos Service Principals in a single broker
 - Support for Certificate Revocation Lists (CRLs) on SSL requests

Universal Connectivity for SOA

- ▶ IBM Business Process Manager (Lombardi) integration
- ▶ IBM Integration administration for WebSphere® Application Server
- ▶ Application-to-application integration
- ▶ IBM MessageSight integration
- ▶ Coordinated transactions for CICS® requests
- ▶ CICS Activity Logging

Dynamic Operation Management

▶ Workload Management

- Message flow notification
- Setting maximum rate for a message flow
- Unresponsive message flows
- Configure a policy; defines threshold limits and relevant actions
 - NOTIFY: Higher (or lower) than threshold generates publication
 - DELAY: Excessive workload will have latency added to shape throughput
 - REDIRECT: At threshold, send workload to input node's failure terminal, backout if not wired



Dynamic Operation Management

- ▶ Execution group user IDs on z/OS
 - Alternate userid can be defined for each EG
 - Permissions controlled based upon userid
 - Controlled via Environment variables
 - MQSI_STARTEDTASK_FIXED_ *executionGroupName*=STC
 - MQSI_STARTEDTASK_MULTI_ *executionGroupName*=STC
Eg. MQSI_STARTEDTASK_MULTI_TESTEG=CSQ1GRP1
 - MQSI_STARTEDTASK_DEFAULT=STC

Note: *executionGroupName* is set using same rules as STEPNAME.

Scalability & High Performance

- ▶ Embedded cache extensions: External cache, expiry and SSL support
- ▶ Flexible Cloud Provisioning with IWS, SCAS and Pure, including Pure POWER support
- ▶ Host WebSphere® eXtreme Scale container servers in multi-instance brokers

Platforms & Environments

- Broad range of operating system and hardware platforms supported
 - ▶ AIX, Windows, z/OS, HP-UX, Linux on xSeries, pSeries, zSeries, Solaris (x86-64 & SPARC), Ubuntu
 - ▶ Optimized 64-bit support on all platforms; 32-bit option for development platforms (Windows & x/Linux)
 - ▶ New support for Windows 8 and Windows Server 2012; .NET CLR V4.5 included on Windows
- Virtual images for efficient utilization & simple provisioning
 - ▶ Extensive support for virtualized environments, e.g. VMWare, AIX Hypervisor... any!
 - ▶ IBM Workload Deployer for x/Linux & AIX
 - ▶ Support for Pure on POWER hardware to complement xLinux
 - ▶ SmartCloud and IBM Workload Deployer images for simplified solution provisioning



Traditional OS



Private Cloud



Public Cloud



IBM Pure



IBM Workload Deployer

Platforms & Environments

- Includes access to full range of industry standard databases and ERP systems
 - ▶ DB2, Oracle, Sybase, SQL Server, Informix, solidDB
 - ▶ Open Driver Manager support enables new ODBC databases to be accessed
 - ▶ JDBC Type 4 for popular databases
 - ▶ SAP, Siebel, Peoplesoft, JDEdwards at no additional cost

- Technology components and pre-requisites
 - ▶ Java 7 on all platforms
 - ▶ MQ 7.5 prerequisite (7.1 on z/OS)

- Detailed System Requirements
 - ▶ Will be posted on www.ibm.com/integration-bus

Troubleshooting and support

- ▶ Verify the ODBC environment on Linux and UNIX systems
 - MQSICVP (mqsistart)
 - runs automatically as part of mqsistart
 - now performs basic ODBC environment checking
 - MQSICVP (standalone)
 - performs connectivity testing of all odbc.ini data sources associated with broker via mqsisetdbparms
- ▶ Can be used to isolate issues discovered during runtime

Migration

- Migration from WMB V6.1, V7 and V8
 - ▶ All development assets (e.g. message flows, ESQL, DFDL, Java, Maps and XSLT) import directly
 - Right-click convert action for pre-V8 maps; some manual tasks may be required
 - ▶ Migrate brokers using a single command, or create new brokers for phased migration
 - No broker redeployment necessary when using built-in migrate command
 - All existing BAR files can be deployed to IB V9 brokers without change
- Migration commands for in-place migration
 - ▶ Includes migration of configuration data including broker databases, queues and registry
 - ▶ Forwards and backwards migration of existing components, in situ
 - **mqsिमigratecomponents** command (includes **-t** option for rollback to V7 and V8)

Migration

- Flexible co-existence options remove the need for additional hardware when migrating
 - ▶ IB V9 co-exists on the same OS with all previous MB versions
 - ▶ MQ V7.5 required for all IB V9 brokers
 - MQ V7.5 supported with all V6.1, V7 and V8 brokers for the purposes of V9 migration

- Built-in conversion tools for WESB source assets
 - ▶ Initial emphasis on web services use cases (e.g. StockQuote)
 - ▶ Advanced use cases over time; convert when appropriate for your installation
 - ▶ Open framework for user and partner extensions

Recap

- History
- New Features in IBM® Integration Bus
 - ▶ Simplicity & Productivity
 - ▶ Business Rules
 - ▶ .NET Support
 - ▶ Graphical Mapping
 - ▶ Web Services
 - ▶ Universal Connectivity for SOA
 - ▶ Dynamic Operation Management
 - ▶ Scalability & High Performance
 - ▶ Platforms & Environments
 - ▶ Troubleshooting and support

Additional WebSphere Product Resources

- Learn about upcoming WebSphere Support Technical Exchange webcasts, and access previously recorded presentations at:
http://www.ibm.com/software/websphere/support/supp_tech.html
- Discover the latest trends in WebSphere Technology and implementation, participate in technically-focused briefings, webcasts and podcasts at:
<http://www.ibm.com/developerworks/websphere/community/>
- Join the Global WebSphere Community:
<http://www.websphereusergroup.org>
- Access key product show-me demos and tutorials by visiting IBM® Education Assistant:
<http://www.ibm.com/software/info/education/assistant>
- View a webcast replay with step-by-step instructions for using the Service Request (SR) tool for submitting problems electronically:
<http://www.ibm.com/software/websphere/support/d2w.html>
- Sign up to receive weekly technical My Notifications emails:
<http://www.ibm.com/software/support/einfo.html>

Connect with us!

1. Get notified on upcoming webcasts

Send an e-mail to wsehelp@us.ibm.com with subject line “wste subscribe” to get a list of mailing lists and to subscribe

2. Tell us what you want to learn

Send us suggestions for future topics or improvements about our webcasts to wsehelp@us.ibm.com

3. Be connected!

Connect with us on [Facebook](#)

Connect with us on [Twitter](#)

Questions and Answers

