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

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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

- 2001 MQSeries Integrator (v2.0) MQSI
- 2003 WebSphere MQ Integrator (v2.1) WMQI
- 2005 WebSphere Business Integration Message Broker (v5.0) WBI-MB
- 2007 WebSphere Message Broker (v6.0) WMB v6.0
- 2009 WebSphere Message Broker (v7.0) WMB v7.0
- 2011 WebSphere Message Broker (v8.0) WMB v8.0
- 2013 – IBM Integration Bus (v9.0) IIB v9.0
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
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 x/Linux
  - SmartCloud and IBM Workload Deployer images for simplified solution provisioning
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 IBM 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
    - `mqsimigratecomponents` 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

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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

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