WebSphere ESB to IBM Integration Bus

A leap forward to a platform for the future
Please Note

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The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user’s job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.
Topics

- Roadmap
- Lower your costs
- The Easy Move
- Additional capability
- IIB is lean and fast
- Information & Education
Roadmap
WebSphere Message Broker has been evolved to address WESB use cases

- WESB remains in support throughout transition
- IBM Integration Bus becomes IBM’s integration backbone

WebSphere ESB clients are provided with a smooth adoption path

- No cost WESB Transfer Licensing to IBM Integration Bus
- Conversion tool harvests WESB assets to accelerate conversion to Integration Bus
- IBM Software Services conversion offerings

Service Mapper: Allows for simple integration tasks without needing deep ESB skills. Narrowly scoped in capability for mapping between service interfaces to assist integrations
No cost WESB PVU transfer options to IIB

Option 1 (original)
1 PVU of WESB gives 1 PVU of IIB (scale mode)
• Identical $ value
• Comparable scalability
• Comparable capability

Option 2 (new)
2 PVU of WESB gives 1 PVU of IIB Advanced plus 1 PVU of IIB Idle Stand-by
• Added $ value
• Comparable scalability
• Enhanced capability
• Includes production usage of WebSphere Adapters
  • SAP, Siebel, PeopleSoft, JDEdwards
• IIB HA ready (active and idle parts included)
Offering the Best of Both Worlds

Offering the best capabilities of both
WebSphere Message Broker and WebSphere ESB
Both standards-based and any-to-any

IBM Integration Bus

- Integration with WAS
- Existing Java skills
- Integrate XML, JSON or custom data
- Web Service orientation

- Runs anywhere including cloud
- High performance
- Lightweight
- Standards-based & any to any end points
- Minimal pre-reqs

- Integrate with CICS, IMS, DB2
- .NET & Visual Basic
- Messaging & Files
- Message replay
- Industry connectivity packs

Service Mapper: Allows for simple integration tasks without needing deep ESB skills. Narrowly scoped in capability for mapping between service interfaces to assist integrations
Moving to a functionally richer product

WebSphere ESB

Security
Routing & Composition
Transformation of well formed data
XML, JSON, COBOL, Fixed Width & Delimited

Web Services
REST Services
MQ, JMS
Database
Files
CICS/IMS
ERP/EIS/CRM
Mobile
IoT
WebSockets
TCP/IP
Analytics

IBM Integration Bus

No charge for developers
Deployable full active/active
Streamlined to ESB use case
HTML5 web admin/monitoring
High scale MQ events/messaging

Security
Routing & Composition
Transformation of any data
XML, JSON, COBOL, C/C++, Fixed Width, Delimited,
EDIFACT, ISO8583, HL7, COBOL, NACHA, 4690-TLOG …
Lower Your Costs
Lower Your Costs

**Software cost reduction**
- No need for separate Integration Designer toolkit licenses
- Development and Unit Test environments are free on IIB
- No need for IIB run time licenses for functional verification testing
- Active:Passive High Availability with priced Idle standby licensing
  - Idle is 20% cost of full license

**IIB Advanced includes production usage entitlement of business adapters**
- SAP, Siebel, Psoft, JDEdwards

**Operational cost reduction**
- IIB / WMB has been in the market for many more years than WESB
- Superior targeted user-level problem determination features
  - Record & Replay, Accounting & Stats, Activity Log
- Larger install base
- Larger community, more opportunities to find answers
- Larger quantity of IIB tech docs & education videos freely available
The Easy Move
The Easy Move

Like moving to a **bigger** house

not to a **new** planet
The Easy Move
- More familiar than you might think!

- Familiar Eclipse-based tooling
- Structured Messages
  • Transport headers
  • Context
  • Payload
- Wired flows
- Processing nodes
  • Properties for customization
  • In, Out & Fail terminals
- Messages
  • Flow in as a request
  • Pass through interconnected processing nodes
  • Flow out as a response
- Standards
  • WS, MQ, JMS, SOAP, HTTP, JDBC, Email, FlatFile, FTP, CICS, IMS
- Java for custom logic
- Subflows
The Easy Move – Flow structure maps from WESB to IIB

Much more detail on this in the WESB Conversion Tool presentation later.
The Easy Move - Easy to Learn

Simple basic concepts supporting powerful capability

- Wide range of **Patterns** and **Samples** for common scenarios
  - Learn by practical example
  - Explore possibilities by customizing a working flow rather than starting from scratch

- IBM Education Assistant
  - Videos freely available
  - Show hands-on how-to
The Easy Move – Different naming, same function

<table>
<thead>
<tr>
<th>WESB</th>
<th>IIB</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation module</td>
<td>.bar file</td>
<td>The unit of deployment of mediation capability</td>
</tr>
<tr>
<td>Mediation primitive</td>
<td>Node</td>
<td>An individual function applied to a message</td>
</tr>
<tr>
<td>Export component</td>
<td>Message flow</td>
<td>Provides inbound receipt of requests and sending responses</td>
</tr>
<tr>
<td>Import component</td>
<td>Message flow</td>
<td>Provides outbound sending of requests and receipt of responses</td>
</tr>
<tr>
<td>Flow component</td>
<td>Message flow</td>
<td>Contains request, response, fault and error flows</td>
</tr>
<tr>
<td>Binding</td>
<td>Input/output node</td>
<td>Protocol/transport specific configuration associated with an import or export</td>
</tr>
<tr>
<td>Function Selector</td>
<td>Route node</td>
<td>Pluggable logic which identifies the operation from a wire format message</td>
</tr>
<tr>
<td>Fault Selector</td>
<td>Route node</td>
<td>Pluggable logic which identifies the fault name from a wire format message</td>
</tr>
<tr>
<td>Business Object</td>
<td>Payload</td>
<td>Memory representation of an input/output/fault message</td>
</tr>
<tr>
<td>Service Message Object</td>
<td>Message tree</td>
<td>Memory representation of a Business Object plus additional contextual information</td>
</tr>
</tbody>
</table>

See IIBv10 documentation for a more complete list of name mappings
Additional Capability
Beyond WebSphere ESB
Positions better with landscapes of the future

- Format data stream and apply predictive rules-based model
- Patterns for rapid mobile integration, including Worklight artifacts
- Cloud install and configure automation
- Community engagements points for developers and administrators

Additional functional nodes

Less customized Java code required, more maintainable

- Quicker time to value
- Lower barrier to entry, lower skills requirement

<table>
<thead>
<tr>
<th>TCP/IP</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeout</td>
<td>CORBA</td>
</tr>
<tr>
<td>.Net</td>
<td>PHP</td>
</tr>
<tr>
<td>FTP, SFTP</td>
<td>Email</td>
</tr>
<tr>
<td>Rules-based decisions</td>
<td>Managed File Transfer</td>
</tr>
</tbody>
</table>
Easy data modeling of any message using DFDL
- Data Format Description Language – Standard based
- WESB is good for XML modeling
- IIB easily models any message format easily with DFDL
- High performance parsing and serialization

Next generation graphical data transformation mapper (GDM)
- Maps the (DFDL) modeled message data from source to destination

JAXB Java transformations
Write Java transformations using simple standard JAXB-style object model get and set operations
Browser based web administration

- Graphical visualization, statistics and analytics
- Zero footprint, no client maintenance or v2v updates required

Built in workload management via policy

- Notify threshold
- Max flow rate
- Unresponsive flows
High performing global cache

- Uses WebSphere eXtreme Scale coherent cache technology
- Share data between multiple integration nodes to improve response times and correlation times
- Support for external eXtreme Scale and DataPower XC10 appliances

Reuse, expandable Patterns

- No need to start from a blank screen
- Rapid development
- Lower barrier to entry, lower skills required

Pattern Authoring – reusable, customizable artifact

User Defined Nodes
IIB is Lean and Fast
Focused on user experience
IIB is Lean and Fast
Download, install and create a service

IBM Integration Bus v10 (open beta)
- First time user experience

Download & Install in 10 minutes
- Developer Edition
- Reduced footprint

Expose my first service in 40 minutes

Open Beta:
Download: ibm.biz/iibopenbeta
Discuss: ibm.biz/iibopenbetaforum
IIB is Lean and Fast – Count the Clicks
Focused efficiency of user experience

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse an existing asset</td>
<td>4 clicks</td>
</tr>
<tr>
<td>Deploy &amp; test a simple integration</td>
<td>4 clicks</td>
</tr>
<tr>
<td>Diagnose and resolve a problem</td>
<td>4 clicks</td>
</tr>
<tr>
<td>Customize a java integration</td>
<td>10 clicks</td>
</tr>
<tr>
<td>Redeploy on a new platform</td>
<td>drag &amp; drop</td>
</tr>
<tr>
<td>Enable a service to be monitored</td>
<td>2 minutes</td>
</tr>
</tbody>
</table>
Information & Education
WebSphere ESB Conversion Tool

IBM Integration Bus supplies a WebSphere ESB conversion tool as part of the Integration Toolkit. The conversion tool accelerates the conversion created for WebSphere Enterprise Service Bus in WebSphere Integration Developer or IBM Integration Designer to IBM Integration Bus.

The conversion tool follows a five-step process:

1. Import WebSphere ESB assets in a Project Interchange File
2. Select the objects within the file to be converted
3. Identify the converters (built-in, placeholder or custom) to be used for each object
4. Convert the assets, generating corresponding IBM Integration Bus flows
5. Review and action tasks created by the conversion process to complete the conversion

IBM Integration Bus v9 supplies a selection of built-in converters, a placeholder converter which creates an empty subflow, and two san

For more information on the conversion tool, see The WebSphere ESB conversion tool and
Converting WebSphere Enterprise Service Bus resources by using the WebSphere ESB conversion tool.

You can download a free to use version of the Integration Toolkit as described Getting started with IBM Integration Bus for Developers. The conversion tool.

In order to enable and encourage 3rd-party extension of the conversion tool, the source code has been published on the
Open Technologies for Integration (OT4I) github repository.

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Education – One day IIB Proof of Technology (PoT) education

IIB detailed technical background of functional and administrative capability

Hands-on lab exercises

(contact your IBM account team)
Education – IBM Education Assistant (IEA) videos

IBM Education Assistant (free educational videos etc)

http://publib.boulder.ibm.com/infocenter/ieduasst/v1r1m0/index.jsp
Education – Finding developer answers

IIB Developer site: Get Started, Do More, Get Help

Knowledge Collection migrating to IBM Integration Bus

Knowledge Collection: Migration for IBM Integration Bus and WebSphere Message Broker

Education

Abstract

This Knowledge Collection is a compilation of links to the most frequently accessed technote, webcast replays, developerWorks articles, blogs, videos and publications dealing with Migration of IBM Integration Bus (IIB) and WebSphere Message Broker (WMB).

Content

Directory of items within this Knowledge Collection

- Migration Assistance
- Collecting documentation for Migration problems
- Technote
- Webcast Replays
- developerWorks Articles
- Blogs
- Videos
- Publications
- Knowledge Collections for IBM Integration Bus and WebSphere Message Broker
Thank You