



Enterprise Integration made easy and cost effective with IBM Integration Bus



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Business Agility Roadshow



Introductions



Agenda

11:30am - 12:15pm Registration and Networking

12:15pm - 12:20pm **Welcome** - Entree Served

12:20pm - 1:00pm **Session 1:** Enterprise Integration - it's really not that hard!

1:00pm - 1:05pm Main Served

1:05pm - 1:40pm **Session 2:** case study & demonstration

1:40pm - 2:00pm Dessert served

2:00pm Event concludes

Speaker



*Dave
Arnold*

*WebSphere
Chief Integration Architect
For ANZ*



Integration is for Everyone... not just the “big boys”



- Perception amongst many Small to Medium sized businesses
 - Major vendor offerings are difficult to understand and engage
 - Time consuming research , many meetings with vendors
 - RFIs, RFPs, PoCs etc
 - Integration Engines / ESBs are expensive
 - “Big ticket” price tag
 - Heavyweight component requiring extensive infrastructure and many environments
 - Integration Engines / ESBs are complex
 - Multiple components leading to complex installs
 - Many pre-reqs with individual tuning requirements
 - Complex bespoke tooling requiring extensive training.
- It doesn't have to be that way.... With IBM you can
 - Evaluate with full function, **freely** available download
 - **Self enable** at your own pace with online education and community support
 - Build an Active/Active with built in HA ESB for production approx **35K AUD**
 - All environments for **70K AUD or less**
 - Deploy simple lightweight runtime and use intuitive tooling
 - Low **pre-reqs**, mature development environment with many accelerators



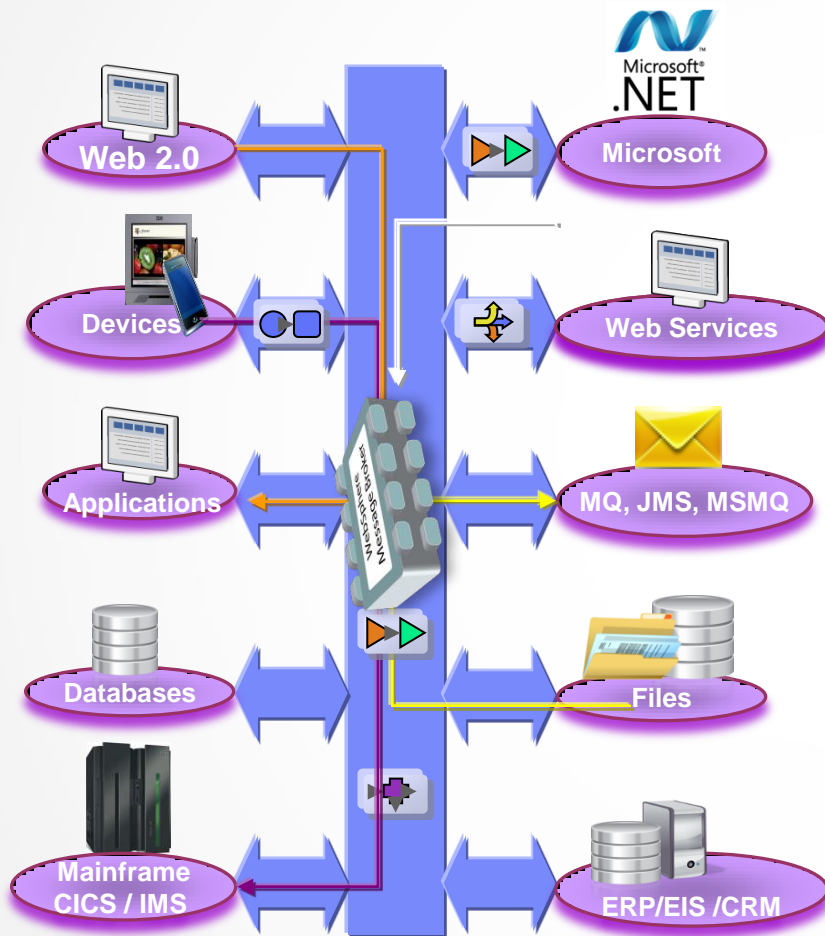
Why Add an ESB or Integration Layer?



- Point to point connectivity:
 - Hard to maintain, manage, govern and control
 - Often brittle and highly exposed in terms of the effects of application changes.
- An Integration layer Adds
 - The foundation for Service Oriented Architecture
 - Centralized common platform for connectivity transformation and routing.
 - Resilience, performance, insulation from application changes and agility.
 - Policy enforcement point and unlocks information across a silo'd organization



Introducing IBM Integration Bus V9.0



- Enterprise Class Integration for all
 - **Universal & Independent**
Low pre-reqs, Java or .NET programming
 - **Easy to use and manage**
Accelerated development and many options for administration and management
 - **High Performing & Scalable**
Near Linear scaling and efficient use of resources
 - **Broadly adopted and Bullet proof**
Top financial institutions across the globe trust IIB for value transactions.
 - **Re-branded WebSphere Message Broker**
Rolls in WESB use cases

- Don't Engage.... Go play!

- For **Free** without time limit

- Evaluate, proof, pilot
- IIB Developer Edition

- Getting Started

1. Download and walkthrough

2. Installation to deploy **15 mins**

3. Community and forums

IBM Integration Community
MQSeries.NET Forum

4. Run IIB Dev Edition on IBM Softlayer
Free for 1 month in the cloud

Get Started with IBM Integration Bus v9.0	
1. Downloading and unpacking	+
2. Installing the toolkit and runtime	+
3. Creating the default configuration and your first integration solution	+
4. Accelerated Development with IIB Patterns based Development	+
5. Advanced Tutorials	+
6. Self Study, Hands-on Labs	+
7. IIB Editions and License Entitlement by Environment	+
8. Logical Architectures and Indicative Pricing	+
9. What next	+

SOFTLAYER an IBM Company <https://www.softlayer.com/info/free-cloud>

Dedicated CloudLayer Managed Services Solutions Support Partners About Us

Give us a try. We'll give you a month.

FREE cloud server for 1 month.

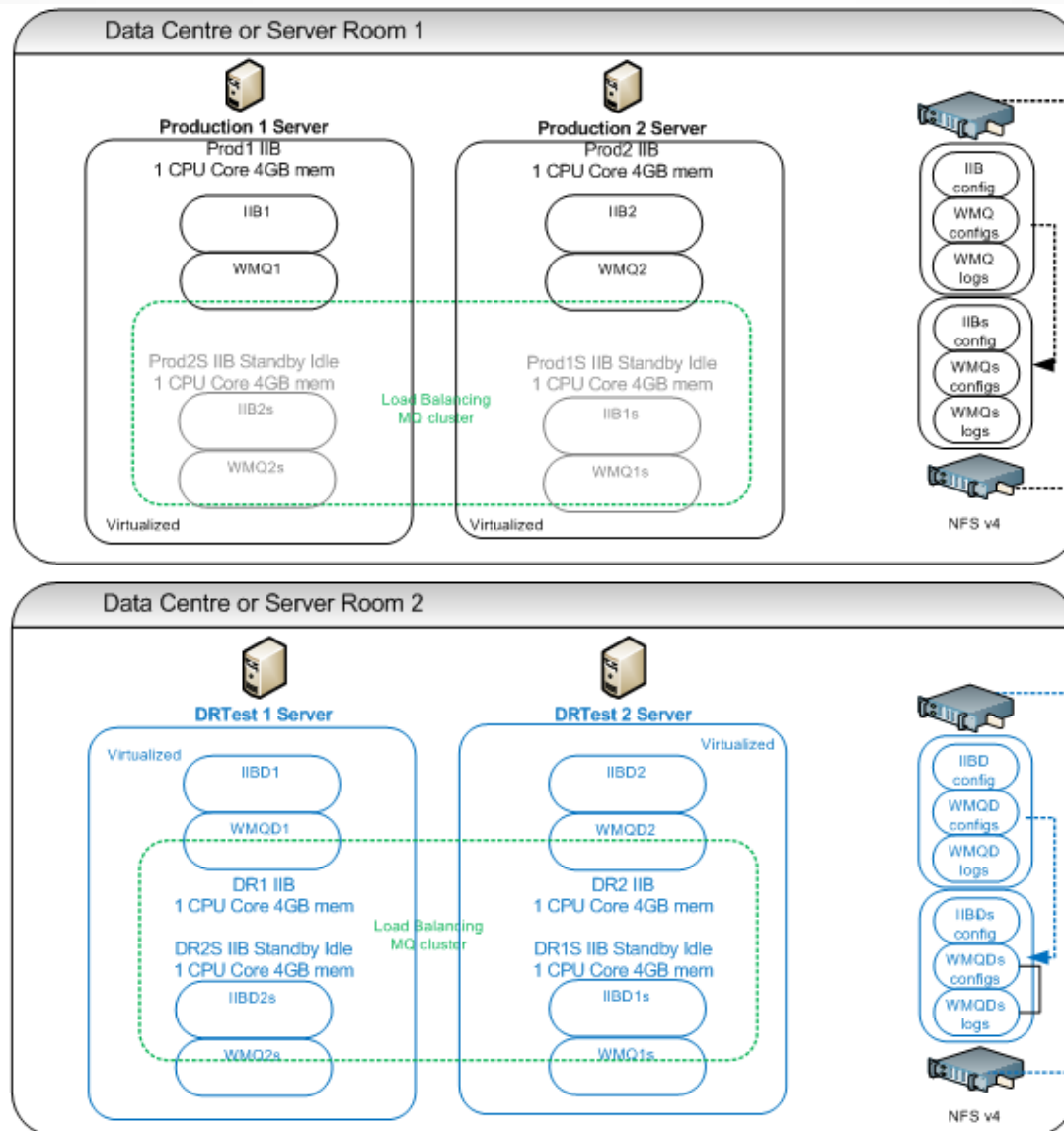
OK, So I've had a play..... Can I afford it?

- IIB Express priced: **17,545 AUD** (per core for 70 PVU rated processor)
- IIB Licensing
 - Entitlement required for production and performance test environments
 - Entitlements included
 - WebSphere MQ
 - WebSphere Extreme Scale Cache
 - *WebSphere Adapters for SAP, PeopleSoft, Siebel, JDEdwards
 - *Agents for C:D and WMQ MFT file transfer
 - Performance, do more with less
 - In many scenarios IIB out performs other integration products by 2:1
- IIB Express versus a S&S only open source model – for all environments
 - Active/Active twin nodes of single core in production plus warm HA failover.
 - Matching performance test environment.
 - All Developer, Development, Test and System Test (non-perf) environments
 - Approximately **70,000 AUD** license and 1st year S&S
14,000 AUD per year support and subscription in following years
- IIB Express perpetual licence versus rental approach on a per core basis
 - IIB Express typically **17,000 AUD** per core 1st year S&S
1400 AUD per month per core for 1st 12 months
300 AUD per month there after based on (3400 AUD follow year S&S)

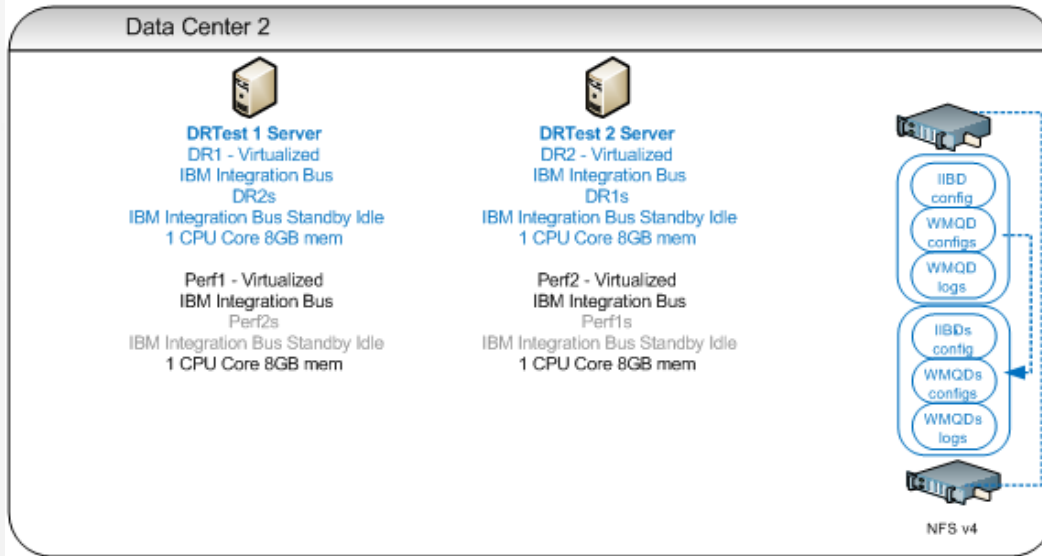
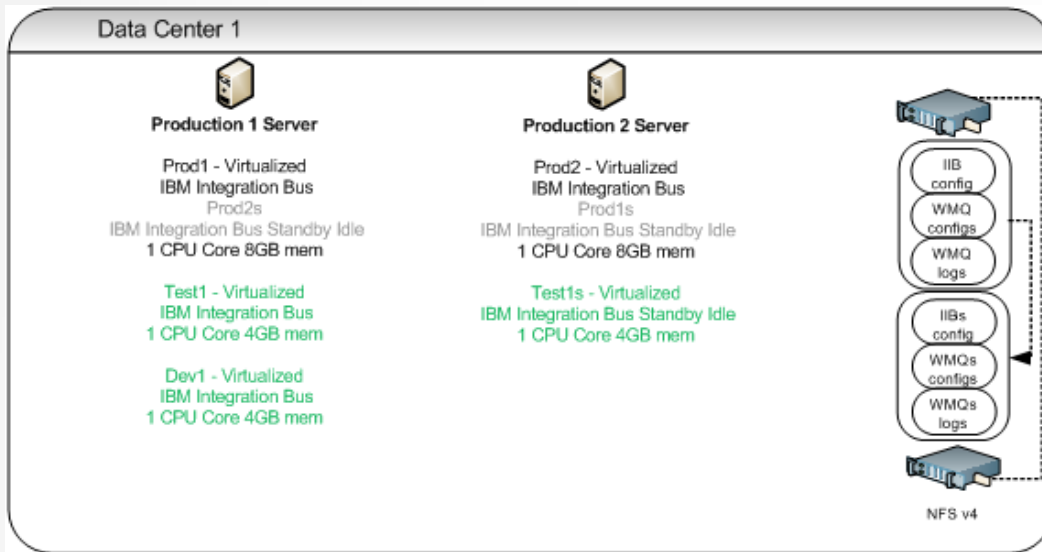
* standard, advanced and remote adapter deployment editions



IIB Express – Active/Active with Local HA and Cold DR



IIB Express – Active/Active with Local HA and Cold DR



All Environments

4 * 70 PVU cores = 280 PVUs

\$70,182 AUD



OK, So I can afford it..... But can I consume the technology?

- Developer Experience

- Leverage existing skills

- Systems Programmers
 - DB Administrators
 - .Net programmers
 - Java programmers

- Patterns based development

- 25+ Production ready templates for common integration tasks requiring configuration only
 - Patterns capture, create your own pattern templates
 - Accelerate delivery
 - Breed Re-use
 - Drive out errors – the template is the contract between designer and developer

- Many wizards for acceleration

- Web Service exposure and consumption in seconds for example

Patterns Based Development to rapidly create and reuse common integrations

Patterns based Development:

1. Select a pattern
2. Instantiate pattern instance
3. Deploy, test and debug
4. Capture or create new patterns
5. Reuse everywhere

The screenshot displays the IBM Integration Bus Patterns Explorer interface. The main window shows a tree view of patterns under 'Patterns Explorer'. The 'HL7 to HL7' pattern is selected under the 'Healthcare' category. A 'View Pattern Specification' window is open, showing the details for the 'Service Facade to WebSphere MQ: one-way with acknowledgment pattern'. This window includes a diagram illustrating the flow from a 'Requesting Application' through a 'Service Facade' to a 'Provider Application'. Below the specification, the 'Pattern Configuration' window is visible, showing a tree view of groups and parameters. The 'Position' group is expanded, showing parameters like 'Latitude (pp1)', 'Longitude (pp2)', and 'Latitude (hidden) (pp4)'. The 'Queue information' group is also expanded, showing parameters like 'Input queue name (pp9)', 'Results queue name (pp10)', and 'Queue manager name (pp8)'. The 'Add Parameter...' button is visible on the right side of the configuration window.

- **Lead Integration Designer – Highly skilled IIB Developer**

- Produce Patterns of Integration leveraging all available accelerators in the toolkit
- Developers are essentially “assemblers” of pre-canned integration logic
Configure points of variation, deploy and test.

- **Lead Integration Design – Solidly trained IIB Developer**

- Produced Patterns of Integration using a prescribed subset of functionality
Focus on message flow construct for logical flow
Use primarily language containers such as Java (JAXB) or .NET for mediation
- Developers work within a simplified framework for integration
Configure points of variation
Write transformation and routing mediation logic
Deploy and test

- **The pattern forms the binding contract between designer and developer**

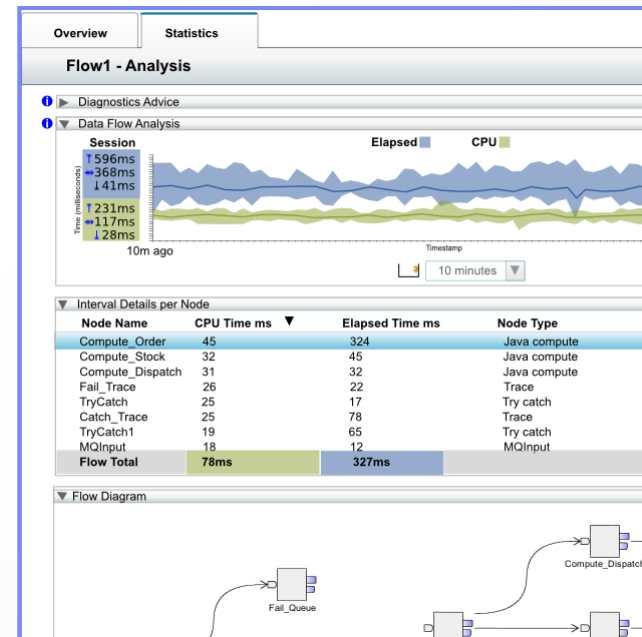
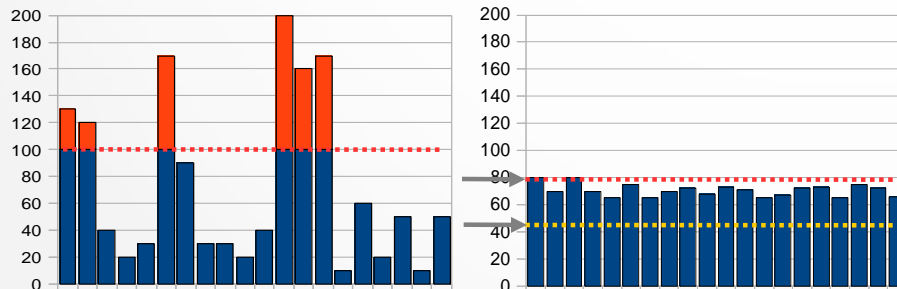
- Developers can request an Exception from the designer to work outside the pattern context
May result in a new or updated version of the pattern issued

OK, So I can afford it..... But can I consume the technology?

■ Administration and Management

– Flexible Administration and management options

- Multiple administration options to suit skill sets or existing admin approach
 - Eclipse based rich client, Web Browser WAS Admin Console
 - Command line utilities, Published APIs : REST and Java
- Built in Auditing, Record and Replay with Web Browser based interface
- Policy based Work Load Management
- Web Based real time analytics
 - Production Ready
 - Debugging analysis aid at design time



- **Example: An Australian Territory Whole of Government**
 - 5 Day training class
 - zOS sys prog assumes lead WMB developer role
 - All government agencies connected through WMB in 3 years
 - New integration services delivered to support business requirements
 - Typically 4-5 days from requirements to production
 - IIB v9.0 on distributed platforms added for silo'd off mainframe requirements

- **Example: University in Sydney**
 - ½ Day introduction, ½ Day a week mentoring from IBM
 - 3 man team, only one experienced programmer (no previous WMB skills)
 - Acquisition to production in 4 months
 - 10 interfaces, Active/Active with HA via WMB Multi-instance support

- **Example: Super Annuation company**
 - 2 Days mentoring/PoC workshop from IBM
 - 2 man team, only one experienced IIB developer provided by IBM Business Partner
 - Acquisition to production in 4 months
 - 2 systems connected
 - 10 interfaces , active/active

- Easy to Engage

- Go play for **Free**

- IBM Integration Bus Developers Edition – Full function, non-expiring

- IIB Developers Edition on IBM Softlayers 1 month free trial

- Wealth of simply to follow getting started material online

- Easy to Acquire/Adopt

- IBM Integration Bus Express V9

- 17K AUD** per core (70 PVU) license

- Active/Active plus warm HA nodes, all environments for **70K AUD**

- Easy to Use and Manage

- Equal appeal to a Java or .NET centric development team

- Accelerate with Patterns based development

- Flexible, lightweight administration options



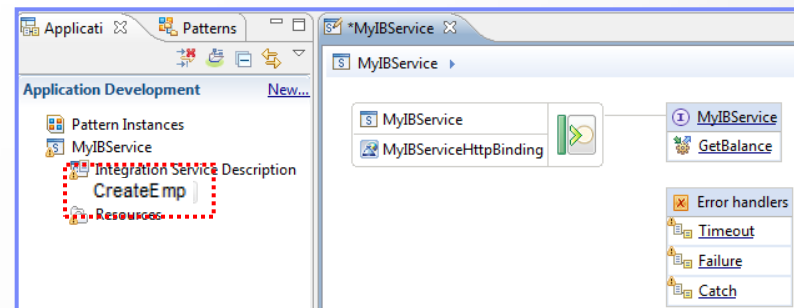
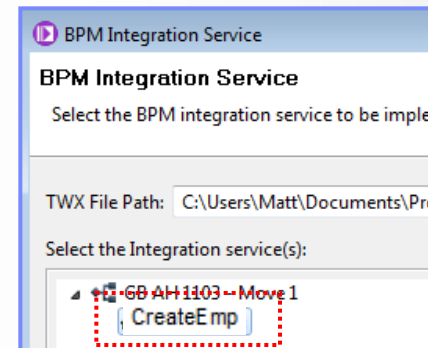
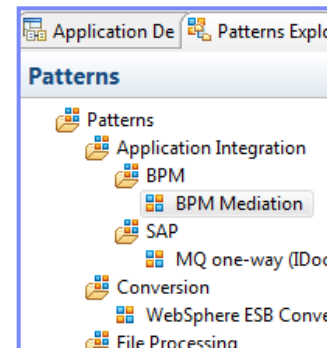
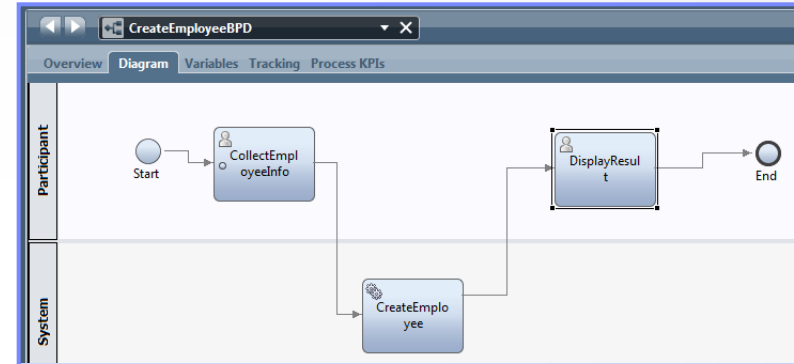
IBM Integration Bus v9

Technical High Lights

Synergy with BPM Express and Standard (Lombardi)



- IB provides powerful connectivity layer for BPM workflows
 - Allows BPM developer to exploit rich integration features
 - Complements SCA nodes for BPM Advanced (WPS)
- Start with business process definition
 - Process Center snapshots provides integration handover
 - Maintain separation of roles between Process designer and integration developer
 - Integration developer imports snapshot from BPM
 - Provides implementation of selected definitions
 - Built-in integration tools simplify this activity
 - Process designer re-imports updated snapshot from IB
 - Completes business process definition
 - Calls integration service in BPM system activity
- BPM pattern simplifies creation of integration solution
 - Start from Pattern Explorer, or use existing service
 - Import .twx file to create skeleton integration flow
 - Customize created integration flow with IB capability...
 - All other IB features available
 - Deploy integration and pass back concrete references to BPM e.g. server IP address, etc.

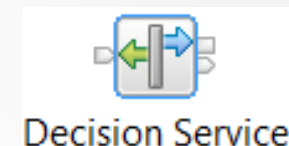


Understand and Act on In-flight data



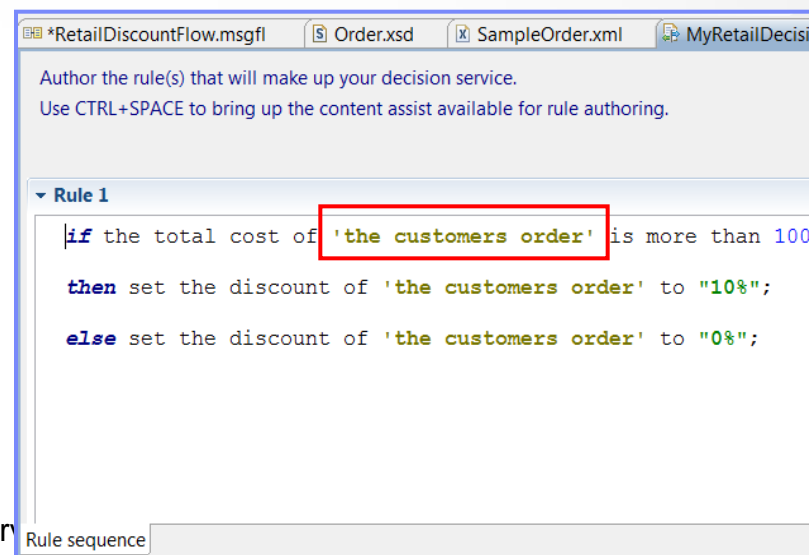
- Provide real time business insight during integration data flows

- “Score” then action in-flight request based on a business rule
- Create rules in the “language of the business”
use Excel, Word or Eclipse etc.



- IIB Decision Service node

- Invokes the built-in rule engine to perform business logic
Open interfaces for 3rd party and user engines
- Captures rules output for downstream processing
Business objects mapped back to in-flight data



- Create rules directly inside Integration Bus toolkit

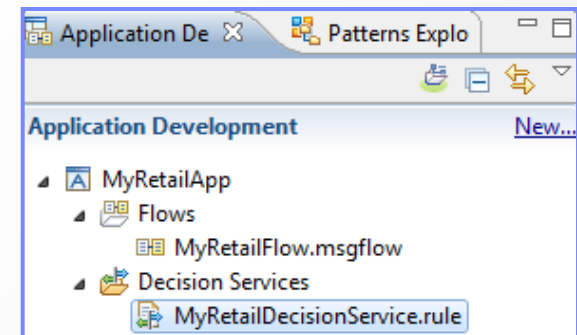
- Significant rules authoring facility built-in
- Automatic package & deploy with integration assets
- Dynamically reconfigure business rule using configurable ser

- Optionally refer to business rules on external ODM decision server

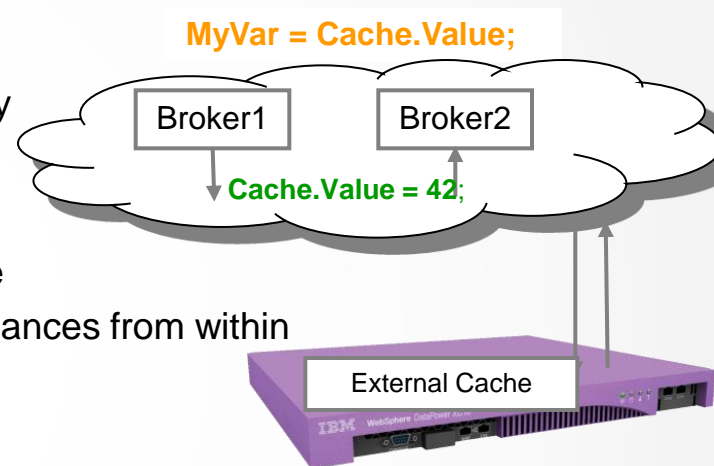
- Exploit separate full ODM Decision Center for BRMS scenarios

- Embedded rules engine for high performance

- Rule is executed in the same OS process as integration data flow
- Rule update notification ensures consistent rule execution
- Optional governance of rules through remote ODM Decision Center



- IB contains a built-in cache to share data between multiple brokers
 - Multi-broker request/reply with context cache
 - Improve mediation response times and dramatically reduce application load
 - Breeds resilience
 - Reference data look-up, result set caching
 - Uses WebSphere Extreme Scale coherent cache technology



- Support for external software and hardware caches
 - Operationally configured using dynamic configurable service
 - Access separate eXtreme Scale and DataPower XC10 appliances from within the broker

- Client connectivity over SSL channels

- If option is selected, all connections from the execution group will attempt to use Transport Layer Security.

Clients default to SSL:	<input checked="" type="checkbox"/>
SSL protocol:	SSLv3
SSL key alias:	myKey

- Cache Expiry options

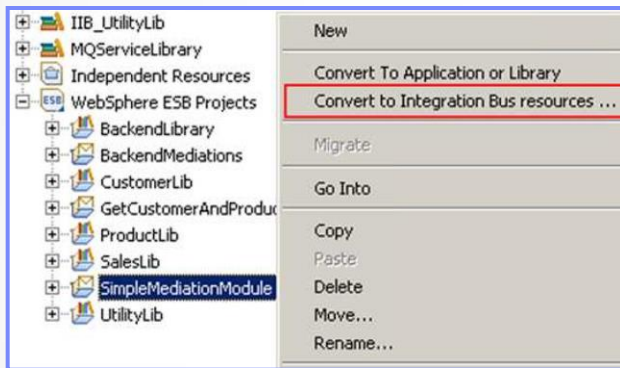
- Specify a value in seconds. The default value is 0, which means data never gets automatically removed.
 - getGlobalMap() variant to set the time to live for data in the embedded global cache.

- Support for arbitrary Java objects as map keys

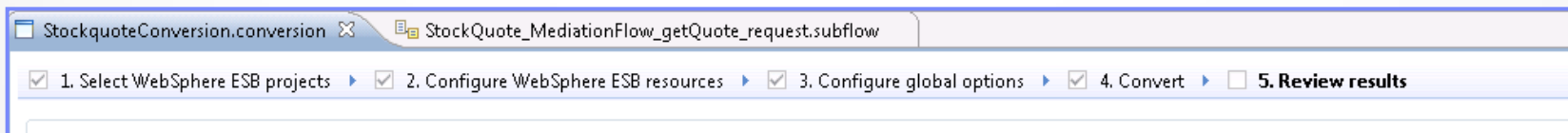
- Insert and lookup map data using a wider range of object types for simplified programming logic



- 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



- Simple workflow creates IB resources
 1. Export WESB PI from IID
 2. Import mediations into Eclipse Toolkit
 3. Right-click “convert” task to start conversion
 4. Follow guided editor to generate resources
 5. Task List will identify remaining manual steps
 6. Iterate as necessary



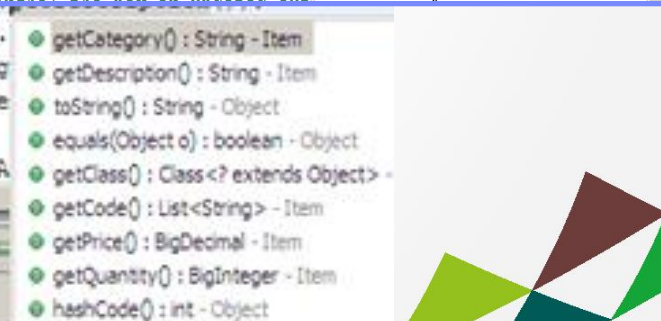
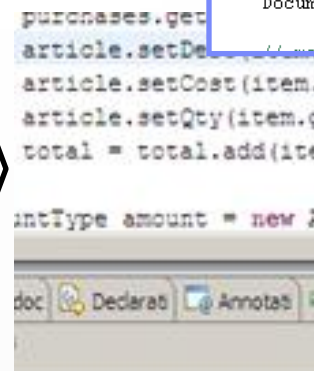
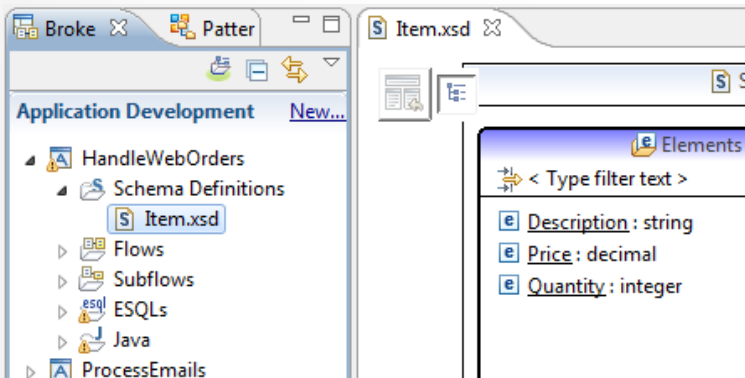
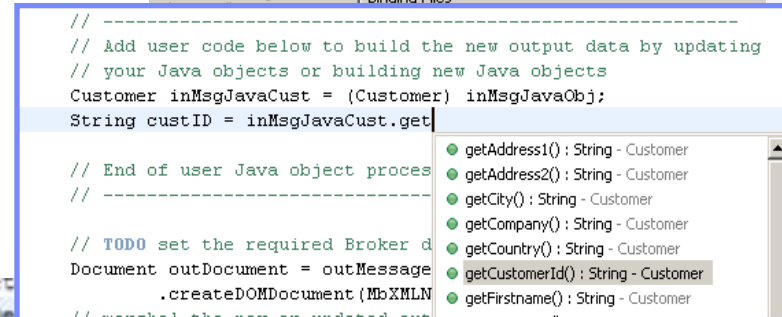
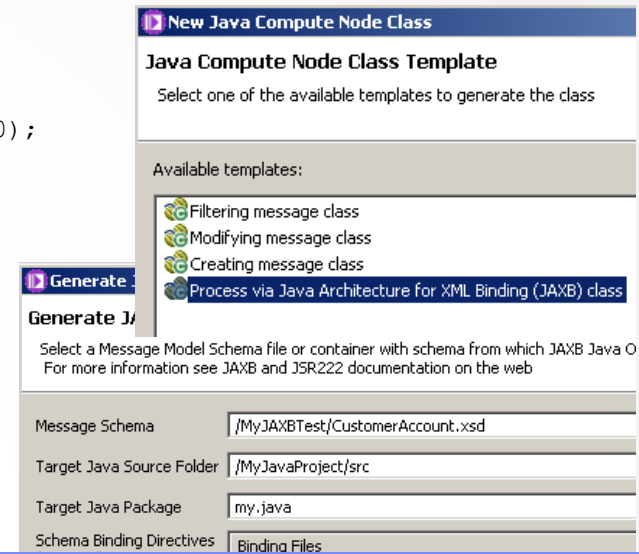
- Open Conversion Framework
 - Extensibility means more WESB primitives and resource types can be converted over time
 - No minimum version requirement of WESB source
 - Builds directly into WESB conversion editor
 - Design allows for future assisted resource creation from non-Integration Bus sources, e.g.
 - eGate Java collaborations and Event Type Definition, exploiting existing JAXB support
 - ICS collaborations, including ASBO and GBO model, exploiting new GDM pattern enablement



JAXB – Natural Java Environment for Developers



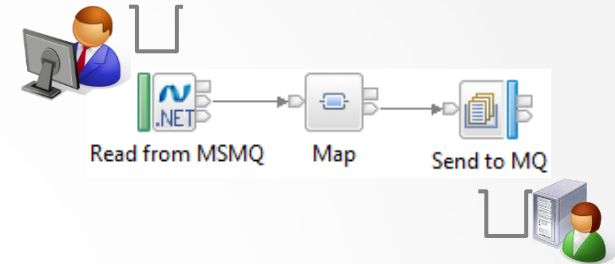
- Write Java transformations using simple JAXB-style object model
 - Getter and setter methods are used to traverse, modify and build messages
 - Uses JavaBeans style of `getFieldName() / setFieldName()` e.g. `myItem.setPrice(200);`
 - Natural conversion between XML schema types and Java data types
 - Useful for writing code for use across multiple products, or migrating existing code into MB
- Comprehensive tooling support
 - New wizard option when implementing a JavaCompute node
 - Full content assist available (e.g. Ctrl+Space)
- Multiple Entry points: Start from model or Start from Java
 - Schema compiler – generates a set of Java assets from an XSD
 - JavaCompute node unmarshals corresponding Java objects from MB tree
 - Call getters and setters directly using this simplified node
 - Schema generator – generates an XSD from Java classes
 - JavaCompute node marshals modified Java objects back into the MB tree



Comprehensive .NET Support



- Patterns and Samples for MS Dynamics CRM and MSMQ
 - SAP CRM pattern for customer account synchronization
 - Advanced CRM pattern enables dynamic graphical mapping
 - New customizable sample for 2-way MSMQ and MQ exchange
- Input and processing 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
 - CLR V4.5 runtime embedded within the integration server provides .NET technology foundation
 - Languages include C#, VB .NET (COM), JScript & F#, with full range of .NET data types
 - App domains for isolation exploited by .NET Compute and .NET Input node
 - Further extensions include Visual Studio 2012, Windows 8/Server 2012 and Azure Cloud compatibility
- Developer Customizations
 - Personalize .NET nodes - Easy to understand, consume and reuse
 - Custom user properties - Expose key properties e.g. CRM IP address
 - Simple node capture - User-defined icons and .NET Toolkit drawer



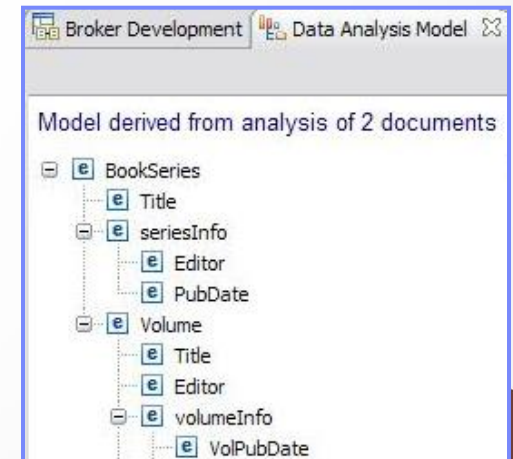
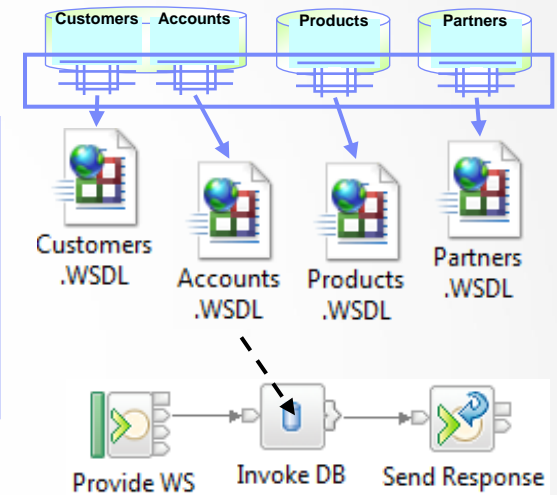
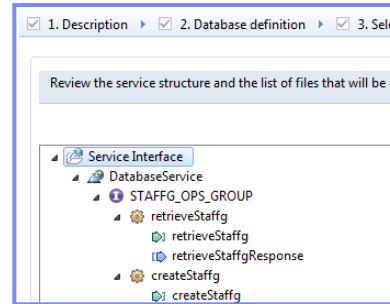
```
SimpleFilterNode.cs x Object Browser
SimpleFilterNodes.SimpleFilterNode Evaluate(NBMessageAssembly assembly)
6 | using IBM.Broker.Plugin;
7 | [assembly: CLSCompliant(true)]
8 | namespace SimpleFilterNodes
9 | {
10 |     public class SimpleFilterNode : NBComputeNode
11 |     {
12 |         public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



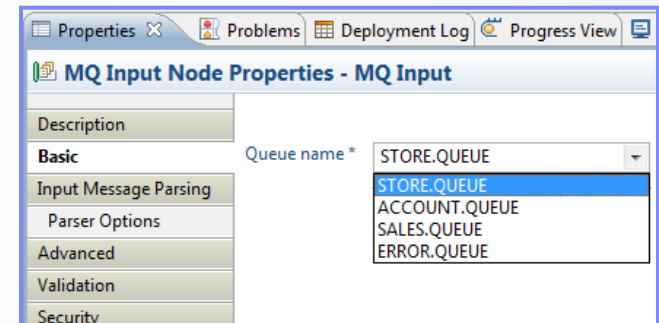
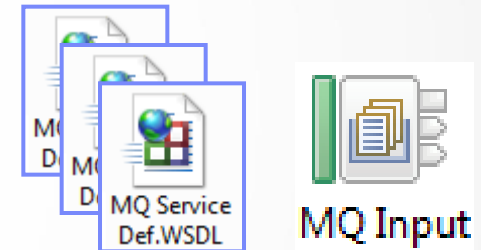
Database Service Discovery and Data Analysis



- **DBMS represents system of record for key business entities**
 - Integration Bus tools discover and represent these key data
 - Integration services extends access to end-user applications
- **New integration tools discover key database assets**
 1. Connect to DBMS (e.g. Oracle, DB2, etc)
 2. Discover source artefacts (tables, views, etc.)
 3. Map CRUD operations to service interface
 4. Save in canonical WSDL document
 5. Re-use database WSDL in multiple scenarios
- **Many uses for database service definition**
 - WSDL contains both logical and physical database information
 - Drag and drop WSDL to automatically create SQL access methods
 - Create new integration service to exploit customized database access
 - End-user application consumes as regular (e.g.) web service
- **Customize integration services with data analysis**
 - Tools for solving the problem of XML document understanding
 - XML message formats can be structurally diverse
 - Often useful to semantically interpret related elements
 - New Data Analysis Perspective provides a collection of useful data views
 - Model data based on input element XML; understand and visualise related elements
 - Generate resources (subflows, maps) that allow transformation between modelled elements



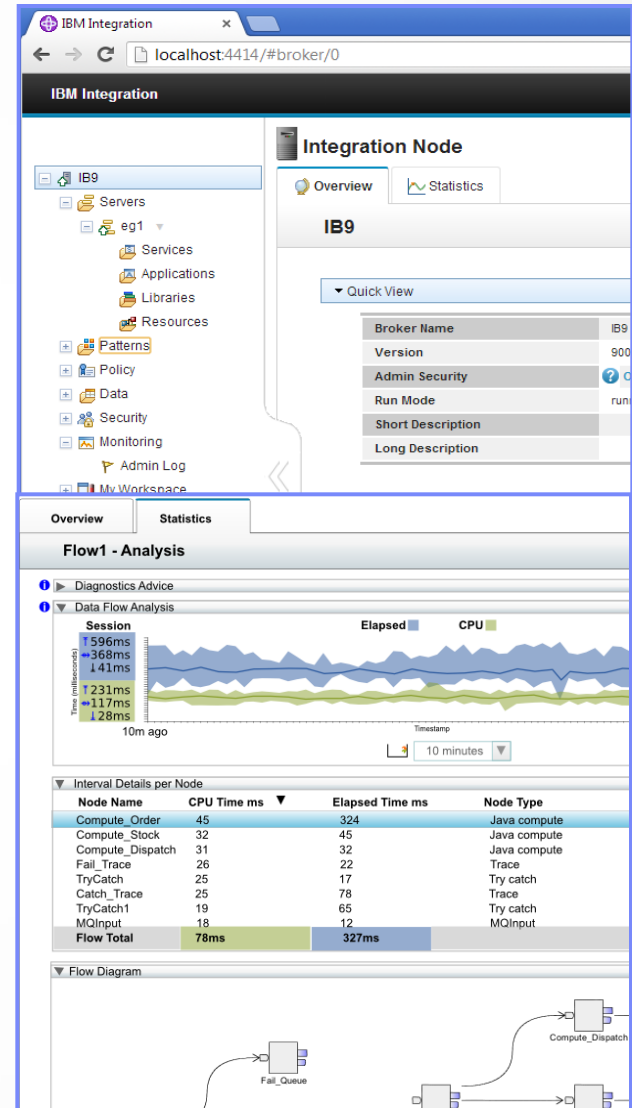
- **Service definitions allow you to make best use of available resources**
 - Facilitates sharing of service information between users and systems
 - Allows users to understand interfaces (e.g. CustomerAddress.Update operation)
 - Provides a connector with which to exchange technical configuration
 - Provides attachment points for associated policies (e.g. authorization)
- **New framework enables discovery, cataloguing and re-use of services**
 - Discovery connectors translate the service provider description to a common model
 - Interrogate IT systems for definition of technical assets – objects, functions and interaction points
 - User selects and refines definition of technical assets
 - Service definitions created and associated with technical assets
 - Discovered service definitions stored in embedded registry
 - Use catalogued services to configure integration solutions
- **Initial implementation discovers and catalogues MQ service definitions**
 1. Discover queues from referenced queue manager endpoint
 2. IB develops MQ service definition and stores in registry
 3. Use service definitions to configure MQ nodes
- **New and existing nodes will be updated over time**
 - Completely aligned with runtime connector framework
 - Simple protocol points appropriate for style of interaction
 - Allows for simple development of custom connectors



Web Visualisation and Analytics



- A comprehensive tool for web management
 - Manage all integration resources from zero-footprint client
 - Analyze integration performance in real-time
 - Complements MQ Explorer and WAS Admin consoles
- Managing Integration Resources
 - Add/remove/change integration servers
 - Start/Stop integration data flows
 - Advanced options include data replay, policy and monitoring
 - Role based and exploits underlying public REST/JSON API
- Integration Performance Analysis
 - Operational experience; no developer intervention required
 - View integration data flow metrics in real-time
 - Flexible display includes integration diagram & data tables
 - Export collected data as CSV for Excel import etc.
 - Exploits underlying MQTT web sockets technology



Controlling Integrations with Policy



Integration Workload Management

- Provide intelligent mechanisms to control processing speed
- Most common scenario is to reduce back-end server load
- Design allows more policy-based processing over time
- Can be applied to new or existing integration data flows

Policy defines threshold limits and relevant actions

- Set thresholds for integration data flow throughput
- Specify actions at threshold, for example:
NOTIFY, DELAY and REDIRECT
- Options for 'unresponsive message flow management'

Web Console used to manage WLM policy

- Sophisticated behaviour controllable by broker WLM policy
- Workload can be managed across classes of message flows
e.g. batch vs. online
- Policies stored in local registry, and dynamically configurable
- Developer can also specify limits as integration data flow properties

Policies

Overview

Workload Management Policy Editor Cancel Save

Policy Name

▼ Targets and Limits

Notification Threshold (Messages per second)

Maximum Rate (Messages per second)

▼ Additional Instances

Additional Instances

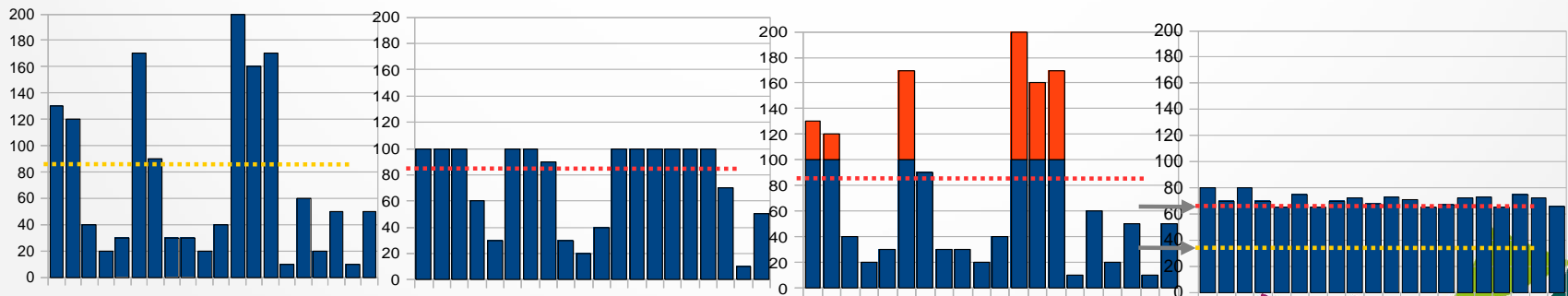
Start additional instances when flow starts

Start Mode

▼ Transactionality

Commit Count

Commit Interval



Case Study - Industry Super Fund

- **Small to medium sized, “not for profit” industry super fund in financial services sector**

- Information Technology Team
 - 1 Solutions Architect (Technical projects manager)
 - 1 System analyst (Vendor facilitation and requirements)
 - 3 Technical Operations Staff

- **Problem faced / key challenges**

- Existing approach to integration – Point to point
 - In flexible - Integration built into the CRM system
 - CRM vendor had to make integration changes and updates
 - Tightly coupled.
 - Lose one lose all
 - No in house autonomy of integration
 - No re-use of integration services
- Runtime
 - Unable to predict or control the impact of load fluctuation on core systems
 - No queuing and poor visibility
 - Average 9 second access times whilst **communicating to customer.**
 - Due to CRM accessing admin system on demand each time.

- **Aspirations**

- Introduce an Service Oriented Architecture
 - Enablement of the seamless introduction of applications including mobile with insulation from complexity of source systems
 - Persistent loosely coupled communication layer
 - insulation from unavailable source systems
 - Reliable queuing removes need to redundant core systems
- Gain control and Breed flexibility and re-use



Approach to solving the problem



- **How/Why was IBM selected as the preferred vendor**

- Criteria for selection

- Market leading, Mature Analyst reports were reviewed, Canvas partners and application vendors
 - Local client list and coverage of financial services industry
 - Positive previous experiences

“My biggest concern was we don’t have a big I.T shop. The integration technology must be consumable, manageable and bullet proof. The runtime stack needs to be lightweight, simple and straight forward to manage. The tooling must be easy to delivery such that I can reuse in house skills or go pick them up from the market. I needed technology that is a proven framework for SOA”

- **Engagement with IBM**

1. Emailed IBM.COM. Contacted by an IBM WebSphere Specialist based in Sydney.
2. Initial conference call to gain understanding of the problem space and discuss technologies and approach
3. Integration workshop – half day
4. IBM returned a comprehensive proposal for our consideration including:
 - candidate architecture, bill of materials, indicative pricing, indicative project plan

- **Due diligence**

- Full Architectural review to define standards (Java for portability, HA, DR, messaging requirements)
 - Engage an independent architect to evaluate proposed technology and approach against those standards
 - Proof of concept
 - Based on easy of delivery of integration, consumability and managability of technology



▪ Product and Architecture

- IIB V9.0 Express Edition
- Active/Active deployment for availability
- Windows platform in VMWare virtualized environments

Production: 2* single core nodes.

Test: Mirrored IIB architecture but within single image.

Dev: Standalone single instance

DR: Cold and based on SAN replication of images.

▪ Implementation

- Additional Team members
 1. IBM Partner supplied IIB Developer
 - 1.Environment provisioning, 1st project development, test and delivery, post project support
 2. Core CRM system vendor assigned technical resource for first project
- 2 Critical core systems (admin and CRM) integrated
- 10 interfaces introduced on the bus
- Added infrastructure to enable “Online Join”
 - e.g real time ID check can now be enabled with minimal fuss
 - User alerting/monitoring/error handling/data validation introduced.



▪ Project Costs

- Licensing + 3 years S&S for IBM Integration Bus Express: 100K AUD
- Implementation Professional Services: 100K AUD
training, environment provisioning and project technical delivery and monitoring set up etc

▪ Timeframes

- Pre software acquisition phase Oct 2013 – Nov 2013: 2 months
- Software Acquisition to production cutover Nov 2013 – Feb 2014: 4 months

▪ Benefits observed

- Improved Employee/Member experience
 - Core systems data synchronization down from overnight to near real time
 - New member created. Employees can now add information immediately (instead of next day)
 - CRM system now fully leveraged for comprehensive member information
- Lowered risk.
 - Modular architecture means core systems can be replaced/upgraded independently
 - Centralized point for diagnostics. Improved visibility aids end to end problem determination thru system isolation
 - Business continuity
 - ESB provides insulation from temporary loss of core systems.
- Speed to market and agility
 - Re-use of services delivered on the ESB

▪ What Next?

Considering NFS for Standby Idle for HA, Introduction of mobile applications, B2B connectivity



- **Customer on engagement with IBM....**

- Low impact to engage, quick to assist and responsive

“IBM exceeded our expectations, providing personalized service and delivering timely expertise.

The combination of access to IBM product experts and IBM’s early engagement of a trusted business partner was key. This meant we had continuity of access to knowledge and expertise directly when we needed it.

This support and assistance continued post sale and through the implementation phase. We always felt we could pick up the phone and get help from a local expert”

- **Customer on the adoption and delivery of IIB v9.0 Express**

- Easy to adopt and cost effective

“We have found IBM Integration Bus to provide a simple and effective platform to establish Service Oriented Architecture.

IIB has enabled a level of agility and provided the ability to respond to changes in the business. We now have the ability to expedite the delivery of new services.

These days, application integration is described as essentially ‘plug in-plug out’ ”



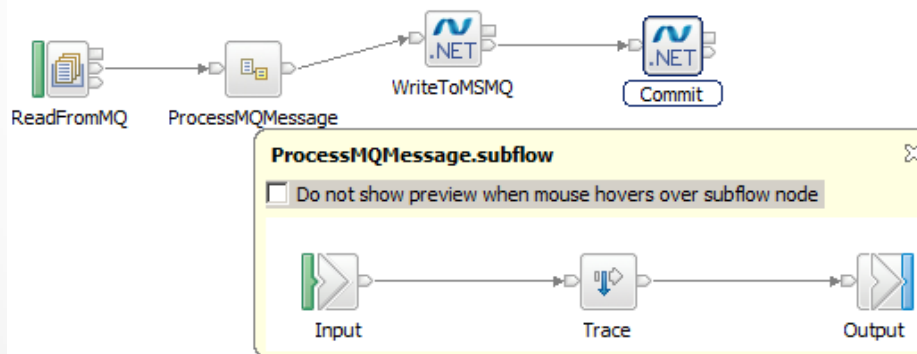
Demonstration

Patterns based development

MSMQ to MQ adaption

- Accelerated Delivery with IBM Integration Bus Patterns
 - Explore some options
 - Patterns Based Development
 - Pattern Instantiation, Deploy and Test
 - Extending the Patterns Explorer with new patterns
 - Pattern Authoring
 - Explore the pattern authoring wizard

The screenshot shows the IBM Integration Toolkit interface. The 'Patterns Explorer' on the left lists various patterns under categories like 'Microsoft .NET Integration', 'Microsoft Dynamics CRM', and 'Mobile'. The 'View Pattern Specification' window is open, displaying the title 'WebSphere MQ to MSMQ Adaption'. Below the title, a description states: 'This patterns provides a bridging from WebSphere MQ to MSMQ. A message arriving on a WebSphere MQ queue is consumed and then written to an MSMQ queue. This provides bridging between the two messaging providers. The patterns supports both non-transactional interaction and one phase commit transactionality.'



IBM Integration Bus v9.0

Useful Links

Important Links Page

- Getting started

<http://www-01.ibm.com/software/au/websphere/integrationbusv9/>

- Dev Download

<https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=swg-wmbfd&S TACT=109KA7GW&S CMP=web opp ibm ws appint integrationbus>

- Integration Community

<https://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=c7e1448b-9651-456c-9924-f78bec90d2c2>

- IIB Express – Integration for Everyone whitepaper from IBM Business Partner

<http://certussolutions.com/info/integration-and-soa/iib-express>

- IIB Info Centre online

http://pic.dhe.ibm.com/infocenter/wmbhelp/v9r0m0/index.jsp?topic=%2Fcom.ibm.etools.msgbroker.help.home.doc%2Fhelp_home_msgbroker.htm

- MQseries.Net forum

<http://mqseries.net/>

- Youtube channels

<https://www.youtube.com/user/BusinessAgilityANZ/>

- IIB on IBM Softlayers article

https://www.ibm.com/developerworks/community/blogs/c7e1448b-9651-456c-9924-f78bec90d2c2/entry/iib_on_softlayer?lang=en

- PVU chart for processors

http://www-01.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html

- IIB Licensing Ts and Cs

http://www-03.ibm.com/software/sla/sladb.nsf/lilookup/9B76B4DBEFAF40FF85257B7B004EB8BC?opendocument&li_select=A906033B8ABE9E1A85257B7B004EB8AE



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As we enter the era of “smart”, significant gaps will open up between enterprises that pro actively transform operations for the digital age and those that continue with business as usual.

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- ▶ Strengthen your workforce and financial systems
- ▶ Build lasting customer relationships
- ▶ Achieve operational excellence.



SolutionsConnect

It's time to make bold moves

Visit: ibm.com/au/sc14
to find out more and register

Sydney 14th May

Perth 21st May

Brisbane 28th May

Melbourne 4th June

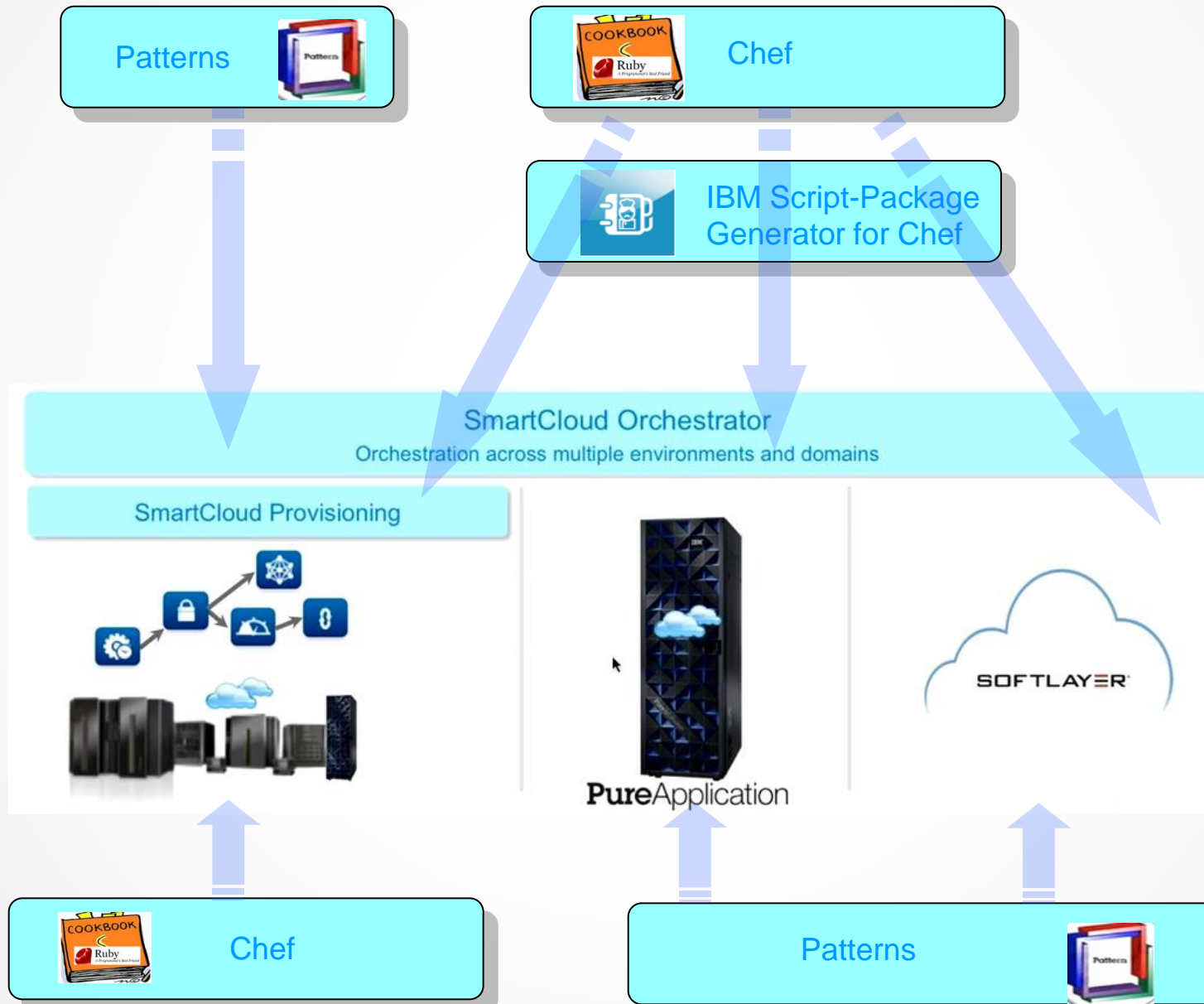
Auckland 18th June



IBM Integration Bus

IIB in the cloud for small to medium sized businesses

Provisioning – Portability and consistency of approach



Provisioning – Portability and consistency of approach



IIB Developers Edition
IIB Express Edition

IIB Standard Edition
IIB Advanced Edition



Available from:
https://Github.com/ot4i-cookbooks/ibm_integration_bus

Pre-packaged Image Editions
IIB Hypervisor Edition for RHEL
IIB Hypervisor Edition for AIX



IBM Script-Package Generator for Chef



IBM Script-Package Generator for Chef



IBM Script-Package Generator for Chef



IBM Workload Deployer



On Prem VM Farm



On Prem private cloud



IBM Public Cloud



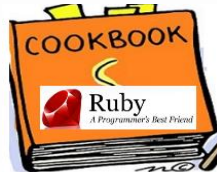
Public Cloud

Evaluation Integration Sandpit – IIB in the cloud?



IIB Developers Edition – Free public download, full function, limited throughput. Switchable to fee based edition

Choose between two recipes:



Default recipe – Toolkit, runtime and setup default configuration
Runtime recipe – Runtime and setup default configuration



```
JSON
├── ibm_integration_bus
│   ├── package_site_url : "http://hurgsa.ibm.com/home/jrjreeve/iib"
│   ├── package_name : "9.0.0-IIB-LINUX64-DEVELOPER.tar.gz"
│   ├── account_username : "iibuser"
│   ├── account_password : ""
│   └── mode : "developer"
├── nodes
│   └── 0
│       ├── name : "IB9NODE"
│       ├── queue_manager_name : "IB9QMGR"
│       ├── queue_manager_port : "2414"
│       └── web_admin_port : "4414"
└── servers
    └── name : "default"
```

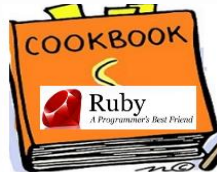
- No software rental required
- No software to purchase
- Automated provisioning
 - Ready to develop
 - Ready to test and run

Low Cost Start Up Integration Project – IIB in Cloud?



IIB Developers Edition – Free public download, full function, limited throughput. Switchable to fee based edition

Exactly the same cookbook and the same two recipes:

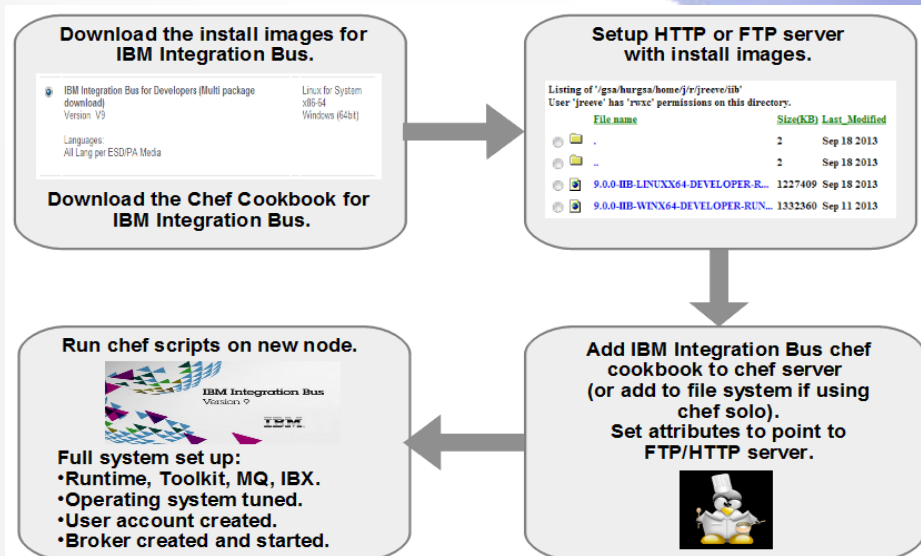


- default – installs everything
- runtime – installs everything except the toolkit

Controlled through attributes and databag items

Operations mode (Edition) can be chosen:

Express, Standard or Advanced Editions



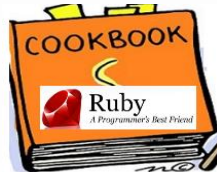
- IIB Express typically 17K AUD per core
 - 1400 AUD per month for 1st 12 months
 - 300 AUD per month thereafter
- Automated provisioning
 - Ready to develop
 - Ready to test and run

Dev Ops – IIB in the Cloud?

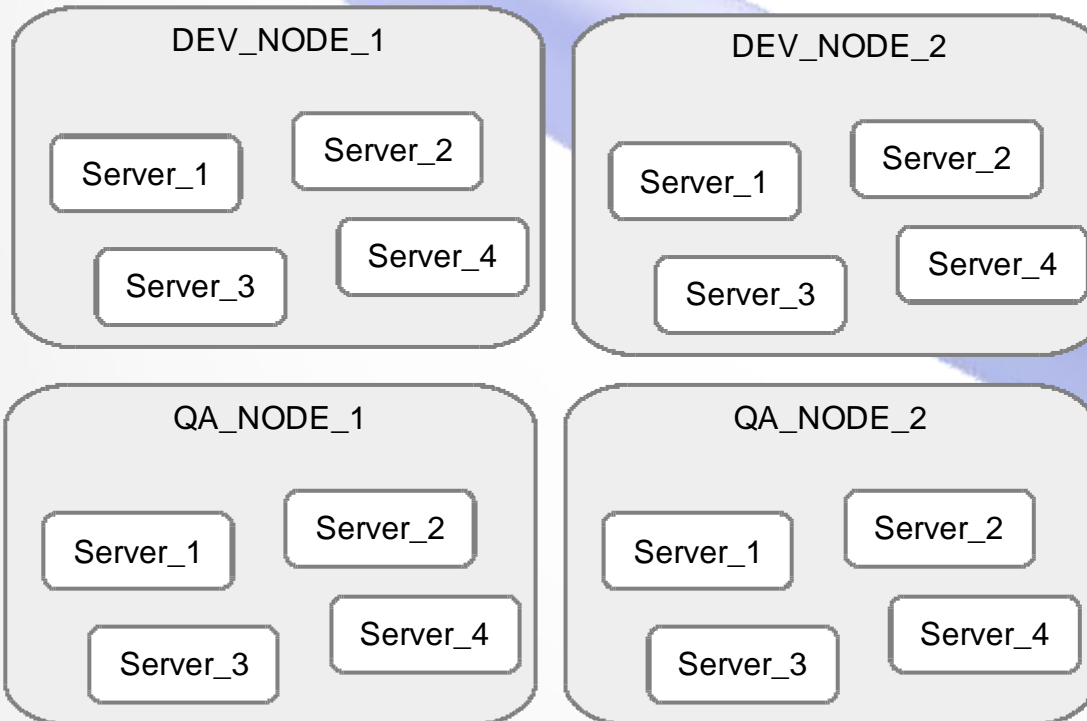


IIB Any Edition – Quickly stand up and tear down non-production environments on shared infrastructure

Exactly the same cookbook
and the same two recipes:



default – Developer Sandpits
runtime – non-prod test environments



Chef definition role

```
JSON
run_list
  0: "recipe[ibm_integration_bus]"
ibm_integration_bus
  package_site_url: "http://hurgsa.ibm.com/home/jjr/jreeve/iib"
  package_name: "9.0.0-IIB-LINUX64-DEVELOPER.tar.gz"
  account_username: "iibuser"
  account_password: "$1$qtIRwzq$C3b4Y07GxcpE71z8UxLV01"
iib_nodes
  0: "dev_1"
  1: "dev2"
  2: "qa_1"
  3: "qa_2"
  4: "prod_1"
  5: "prod_2"
```


Add integration capacity for known peaks – IIB in the Cloud?

IIB Any Edition – Makes most financial sense for Standard and Advanced due to Express low cost.

Exactly the same cookbook
and the same two recipes:



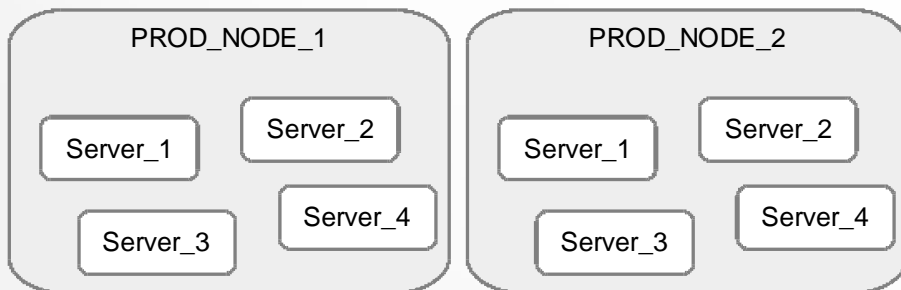
default – installs everything
runtime – installs everything except the toolkit



Add capacity to existing node or add a node

Operations mode (Edition) set to match existing investment

```
JSON
├── run_list
│   └── 0: "recipe[ibm_integration_bus]"
├── ibm_integration_bus
│   ├── package_site_url: "http://hurgsa.ibm.com/home/frjfreeve/ib"
│   ├── package_name: "9.0.0-IB-LINUX64-DEVELOPER.tar.gz"
│   ├── account_username: "ibuser"
│   └── account_password: "$1$qtIRwzq$C3b4Y07GxcpE71z8UxLV01"
└── ib_nodes
    ├── 0: "prod_1"
    └── 1: "prod_2"
```



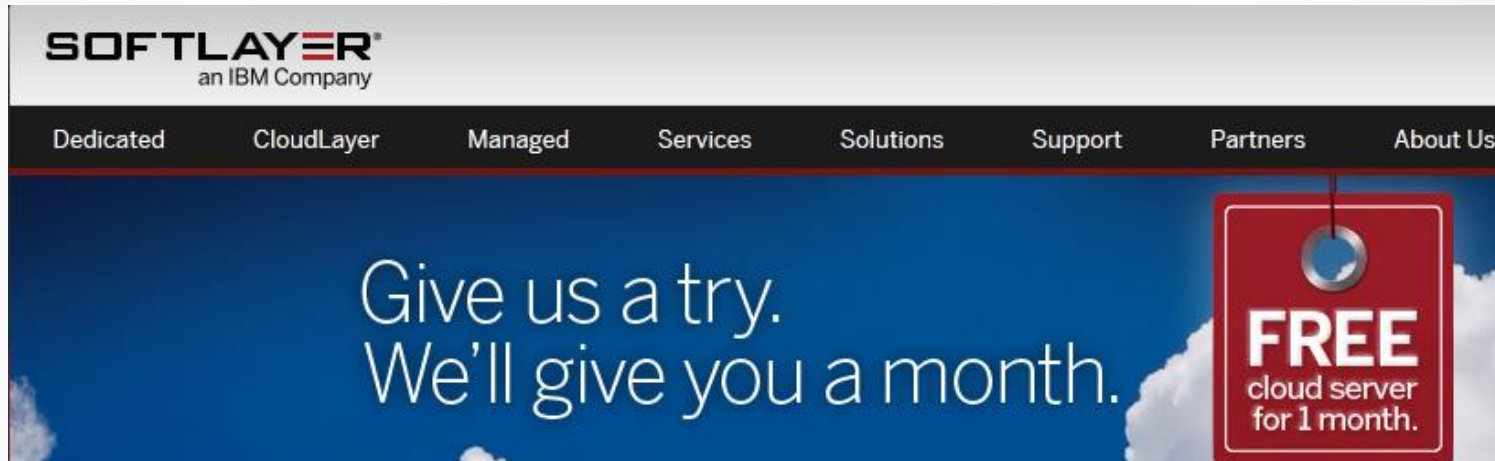
- On Off Capacity on Demand
 - Approximate costs:
 - IIB per processor day = 1300 AUD
 - 2 weeks = 18,000 AUD
- Automated provisioning
 - Ready to join cluster and execute

Try it out for free – IIB for Developers on Softlayer



Install IBM Integration Bus v9 Developer Edition on a SoftLayer Cloud Computing Instance instructions

https://www.ibm.com/developerworks/community/blogs/c7e1448b-9651-456c-9924-f78bec90d2c2/entry/iib_on_softlayer?lang=en



1. Create a SoftLayer Server
2. Get IBM Integration Bus Developer Edition
3. Transfer files to the SoftLayer server
4. Install IBM Integration Bus runtime on the SoftLayer server
5. Create a simple MQ and Integration Bus configuration on the SoftLayer server
6. Deploy to and manage the Integration Bus runtime