

IBM Application Integration Suite and IBM Integration Bus Update

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WebSphere User Group
IBM Southbank, London 2017



Business projects are driving the “hybrid” agenda



Hybrid User Communities

Used by both IT as well as LOB who are adopting integration tooling to automate application interactions.



Hybrid Connectivity

Reach across secure connections to get to data where it is from wherever you need



Hybrid Integration Styles

Combining app integration, API integration and data integration



Hybrid Deployment

Software can be flexibly deployed on cloud and on-premises to optimize solution architecture

These two worlds must converge

Enterprise Scale Combined with Start-up Speed



How do you...

- Protect your investment
- Maintain Security & Privacy
- Refocus your resources

CIO Roles: Turn IT into a competitive advantage

You are slowed by...

- Technical Debt
- Disparate data & apps, Inflexible governance
- Skills gap

You need...

- Securely integrate across environments
- Transform existing services for digital to API's
- Easy to use open technologies



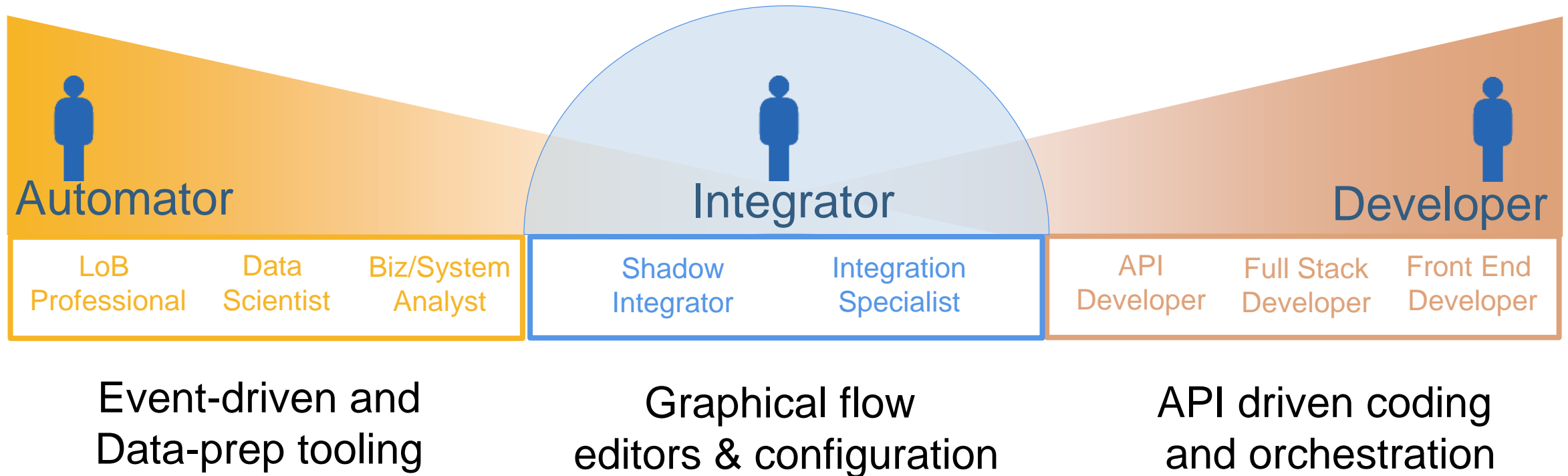
- Speed Innovation
- Expand the brand
- Exploit partnerships

LOB Roles: Innovate to Drive New Revenue

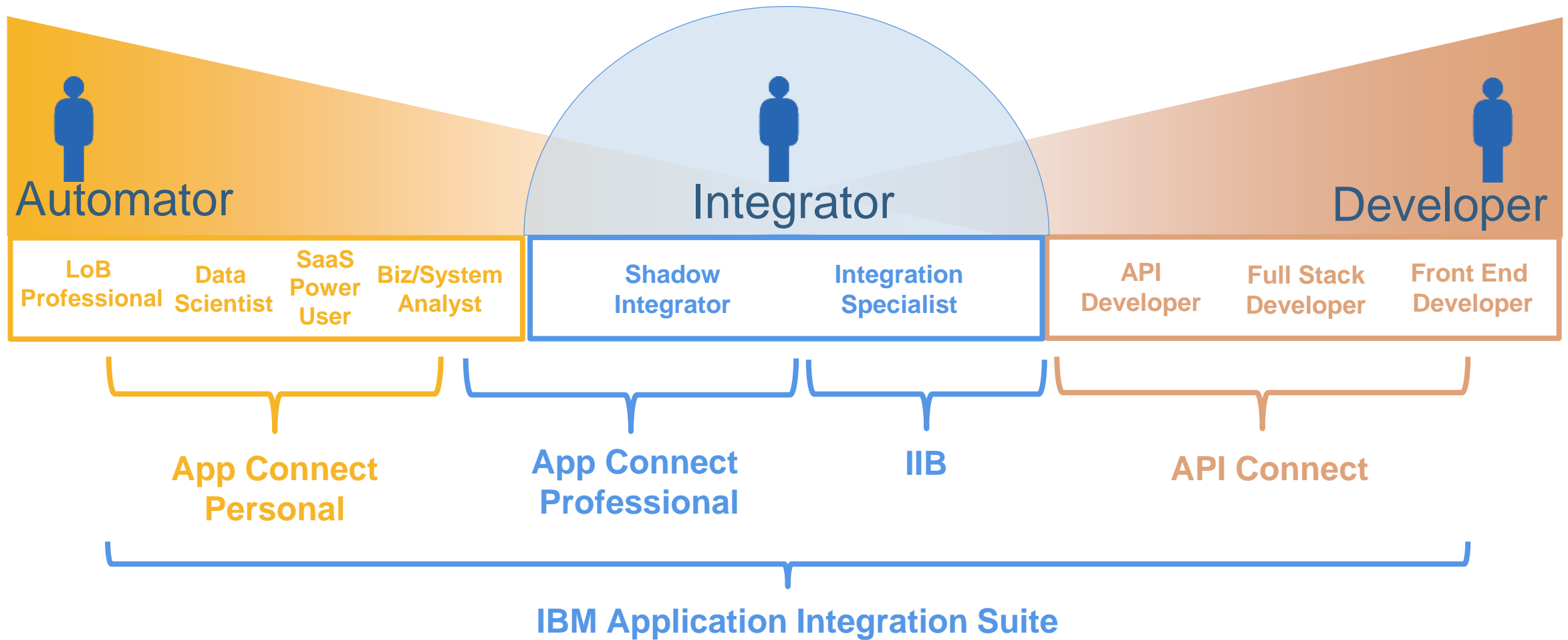
- Inability to scale
- Standalone initiatives
- Protecting intellectual capital

- Integrate & scale using new technologies (microservices)
- Implement lightweight governance with IT
- Consume API's via self service

Integration needs are becoming more pervasive



How does IBM cater for these roles?



New on-premise and cloud offering combining the capabilities of:

- IBM Integration Bus Advanced
- IBM API Connect
- IBM App Connect



IBM Application Integration Suite

Simplified Portfolio

Single solution for how to build and manage services for the cloud, addressing even the most complex integration needs (including on-prem and cloud, as well as across ESB and API Economy)

Meaningfully Integrated

Use integration tooling to build new APIs and then manage them with our robust API Management solution without writing any code

IBM software is reliable, secure, highly available, and offers an unparalleled support network

We offer more function than anyone else in one place!

*An integrated set
of key capabilities*

IBM Application Integration Suite



CONNECT

Rapid access to **hundreds of applications and data sources** both in the cloud and on premise, with **secure** communication



XFORM

Extensive set of **pre-built objects** that transform, join, aggregate, restructure, cleanse & enrich data to meet simple & complex requirements



DELIVER

Seamlessly **scale workloads** in order to route and deliver data in real-time with quality of service guarantees



COMPOSE

Quickly **assemble APIs** into a coherent flow in order to provide higher grained business value



EXPOSE

Provide **secure and managed access** to enterprise assets across internal and external developer communities

[Find out more](#)

11:40-12.25

App Connect Professional

Shreyas Shah

(Darwin + Boyle)

16:30-17:15

101 Tips and Extensions for API Connect

Charlotte Hutchinson; Chris Phillips

(Darwin + Boyle)

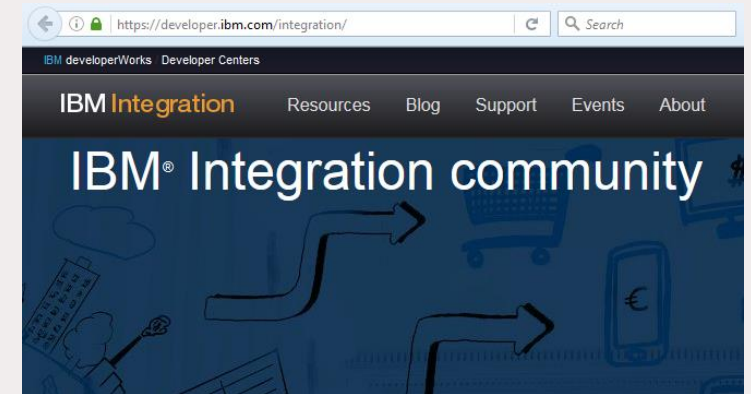
IBM Integration Bus

Update

In case slides are not your thing ...

- <https://developer.ibm.com/integration>
- Lots of Blog entries, regular updates and links to product demo videos! All our recent enablement material is on youtube

Running IIB in Bluemix Container Service	https://youtu.be/ybGOiPZO3sY
IIB and Kibana dashboards	https://youtu.be/sCPRT2dHKSs
IIB and Hybrid Connect	https://youtu.be/gWbxlooq3_g
IIB and LDAP	https://youtu.be/HrqY9MyfzNs
IIB LoopBack Request node	https://youtu.be/rUK_OQ5-Anw
Using IIB to integrate with MongoDB and Cloudant	https://youtu.be/ls1pphngUIM
Using IIB for REST, Graphical Mapping & Salesforce	https://youtu.be/XIK6QvNSHdY
IIB, Kafka and Twilio SMS:	https://youtu.be/7mCQ_cfGGtU
Using Kafka with IIB	https://youtu.be/kYv0crl86Y
Consuming REST APIs using the IIB REST Request node	https://youtu.be/C_6gPIrCHZQ
Easy demo of an IIB App Connect node	https://youtu.be/StwPbOiFKzk



IIB v10.0.0.2

Q3 2015

Global Cache upgrade to WXSv8.6
GDM access to Global Cache
REST API integration with APIm
CICS 2 Phase Commit
TCPIP report properties enhancements
WESB conversion enhancements

IIB v10.0.0.4

Q1 2016

Callable Flows for linking to IIBoC
Create a REST API without Swagger
JSON Schema support for GDM
Salesforce Request node
LDAP Authentication
Web UI Activity Log
SLESv12 (x86 and Z Systems)

IIB v10.0.0.6

Q3 2016

REST Request node
REST Async Request & Response nodes
Loopback Request node
MQ version 9 support
Support for YAML format Swagger
Support for REST APIs with node-wide listener
HTTP Logging Enhancements
HTTP Input Query Param split in LE

IIB v10.0.0.7

Q4 2016

Kafka Producer and Kafka Consumer nodes
Hybrid Connect – view IIB instances in Bluemix
Send IIB logs to Kibana dashboard in Bluemix
Pre-built Docker image on Bluemix Containers
Wildcards to simplify LDAP user authentication
Accounting & Stats CSV output
Windows 10 support

IIB v10.0.0.8

Q1 2017

IBM Cloud Product Insights in Bluemix
Asynchronous Callable Flows
JSON support for allof, anyof, oneof
Storing context for REST Async Request
Message Keys for Kafka nodes
10 New Product Tutorials
Node.js and FTE upgrades

IIB v10.0.0.3

Q4 2015

Business Transaction Monitoring
CICS 2 Phase Commit on zOS
Oracle stored proc in GDM
Linux Power 8 Little Endian
(RHEL7.1, Ubuntu14.0.0.4, SLES12)

IIB v10.0.0.5

Q2 2016

MQTT SSL and dynamic config
Bulk Push to API Connect
Callable Flows report properties

IIBvNext Closed Beta



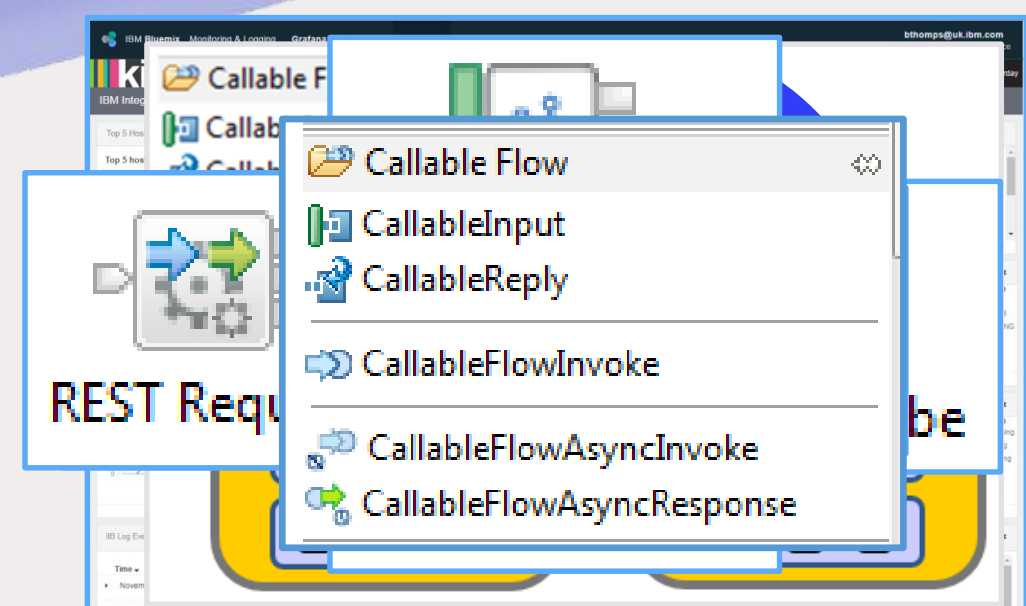
IIB on Cloud

Q3 2015

IBM Managed Service
Built on Docker containers
Runs on the Bluemix Container Service
Reuse artifacts built for IIB on-premise

IIB Manufacturing Pack v1.0.0.2 Q3 2016

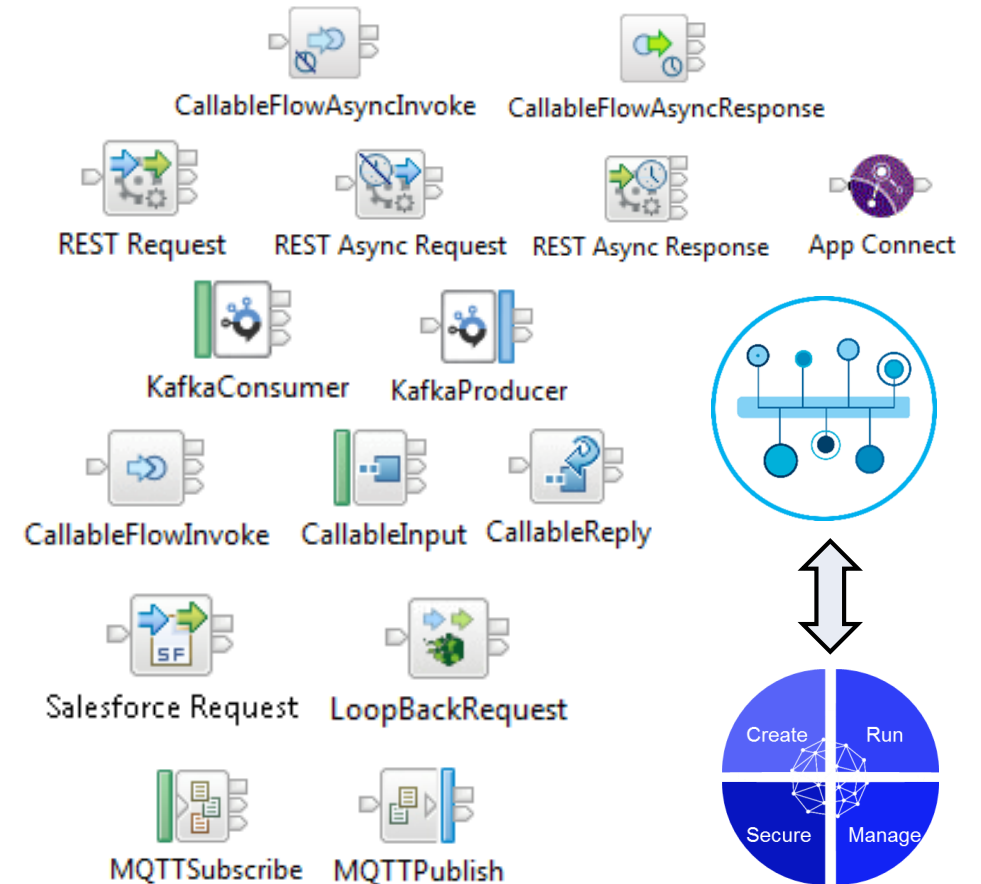
IIBv10 Compatibility



Since last year, we've been busy!

- Callable Flows for Hybrid Cloud scenarios
- Create a REST API without needing a Swagger document
- JSON Schema support for graphical maps
- Salesforce Request node
- LDAP Authentication for admin changes (& wildcarding)
- Web UI Activity Log view for message flows
- MQTT SSL and dynamic configuration
- Bulk push REST APIs to API Connect from IIB Web UI
- REST Request, REST Async Request, REST Async Response
- LoopBack Request node for integrating Apps and NoSQL
- HTTP and REST enhancements
 - Logging, YAML , REST APIs with node-wide listener
- Kafka Producer and Kafka Consumer nodes
- View IIB instances in Bluemix
 - (Hybrid Connect / Product Insights)
- Send IIB logs to Kibana dashboard in Bluemix
- Pre-built Docker image on Bluemix Containers
- Accounting & Statistics CSV output
- Asynchronous Callable Flows
- JSON support for allOf, anyOf, oneOf
- Storing context for REST Async Request

Message Assembly		JSON
<Click to filter...>		
Properties	[0..1]	PropertiesType
JSON	[1..1]	JSONMsgType
Padding	[0..1]	string
Data	[1..1]	Customer
id	[1..1]	int
firstname	[1..1]	string
lastname	[1..1]	string
address	[1..1]	string



10 New IIB Tutorials Recently Added ...

Kafka, Aggregation, REST, Callable Flows, Bluemix Product Insights!

Show Me

Here you can explore and learn about IBM Integration Bus using tutorials.
What are you interested in?

Tool Capabilities

Explore Integration Bus concepts by following simple tutorials

Producing and consuming Kafka messages

- Call a REST API using the RESTRequest node
- Call a REST API using the RESTAsyncRequest node
- Using Bluemix Product Insights to view IIB Registration and Usage
- Using Bluemix Kibana Dashboards to view IIB Logs
- Aggregation nodes using MQ nodes with back-end services
- Aggregation nodes using HTTPAsyncRequest nodes with back-end services
- Aggregation nodes using RESTAsyncRequest nodes with back-end services
- Aggregation nodes using SOAPAsyncRequest nodes with back-end services
- Aggregation nodes using CallableFlowAsyncInvoke nodes with back-end services

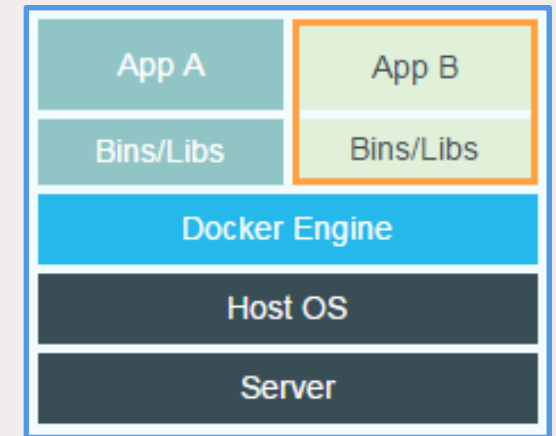
Learn how to use the KafkaProducer and KafkaConsumer nodes in a message flow (requires IBM Integration Bus v10 fixpack 7 or later).

[View Details](#)

[Start Tutorial](#)

IIB in Docker (and on Bluemix Container Service)

- IIB Docker image now available on the Bluemix Container Service
- It is fully supported to run IIB (including production usage) in Docker
 - Developer edition binaries linked from Github dockerfile
 - Docker containers securely isolate applications on a single host
 - No need for an entire Hypervisor / Virtual Machine for each container
 - Run many containers simultaneously and quickly scale
 - Launch when needed and then shut down when not!
- IIB runs in Docker as part of the IBM-managed service “IIB on Cloud”



The screenshot shows the 'Container Images' section in the Bluemix console. The header reads 'Compute // Start with Cloud Foundry or Docker images'. Below the header, there's a list of container images, each with an IBM logo icon and a 'View More' button. The images listed are:

- ibm-integration-bus
- ibm-node-strong-pm
- ibm_wa_agent
- ibmliberty
- ibmnode

The screenshot shows the GitHub repository page for 'ot4i / iib-docker'. The branch is 'master' and the version is 'iib-docker / 10.0.0.0 / +'. The repository contains several files, including 'kernel_settings.sh', 'Dockerfile', 'iib-license-check.sh', 'iib_env.sh', 'iib_manage.sh', and 'kernel_settings.sh'. The commit history for these files is shown as 'Initial Commit'.

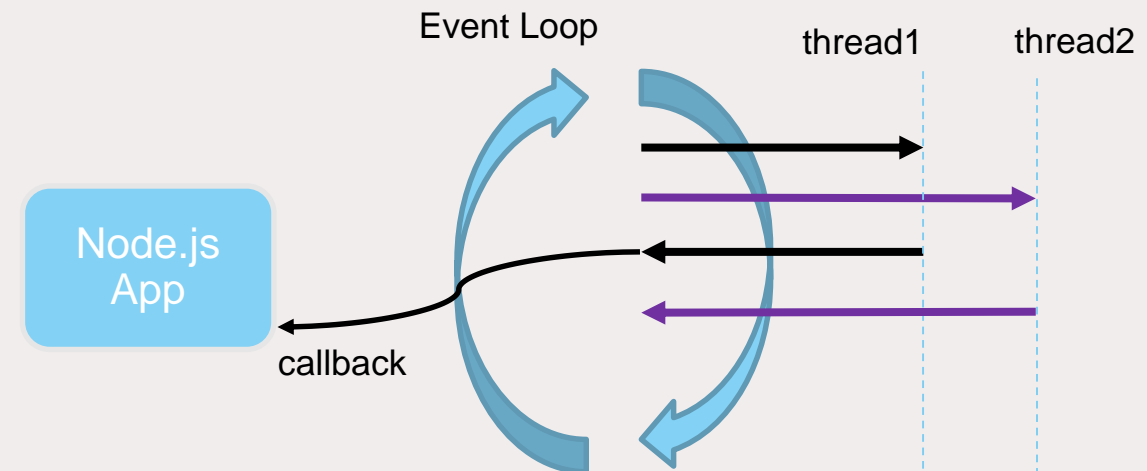
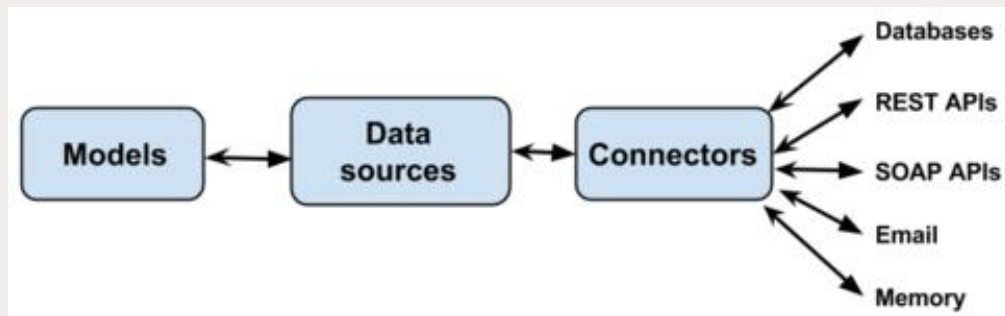
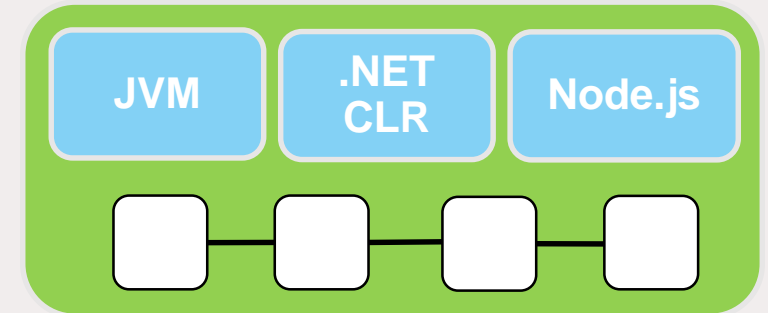
IIB Docker file available on Github: <https://github.com/ot4i/iib-docker>

Running IIB in the Bluemix Container Service: <https://youtu.be/ybGOiPZO3sY>

<https://developer.ibm.com/integration/blog/2016/11/18/run-ibm-integration-bus-in-bluemix-in-3-easy-steps/>

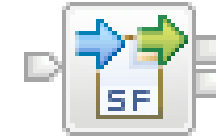
Embedded node.js – Uses and Direction

- JavaScript growing as a language server-side, especially popular in the mobile dev community
- Event-driven, non-blocking I/O model that makes node.js perfect for data-intensive, real-time applications
- IIB embeds node.js within the Integration Server process on Windows and Linux
- Currently we have three main uses for node.js within IIB but this will grow in future:
 - Salesforce Request node
 - LoopBack Request node
 - IIB Switch for secure access to IIB on Cloud

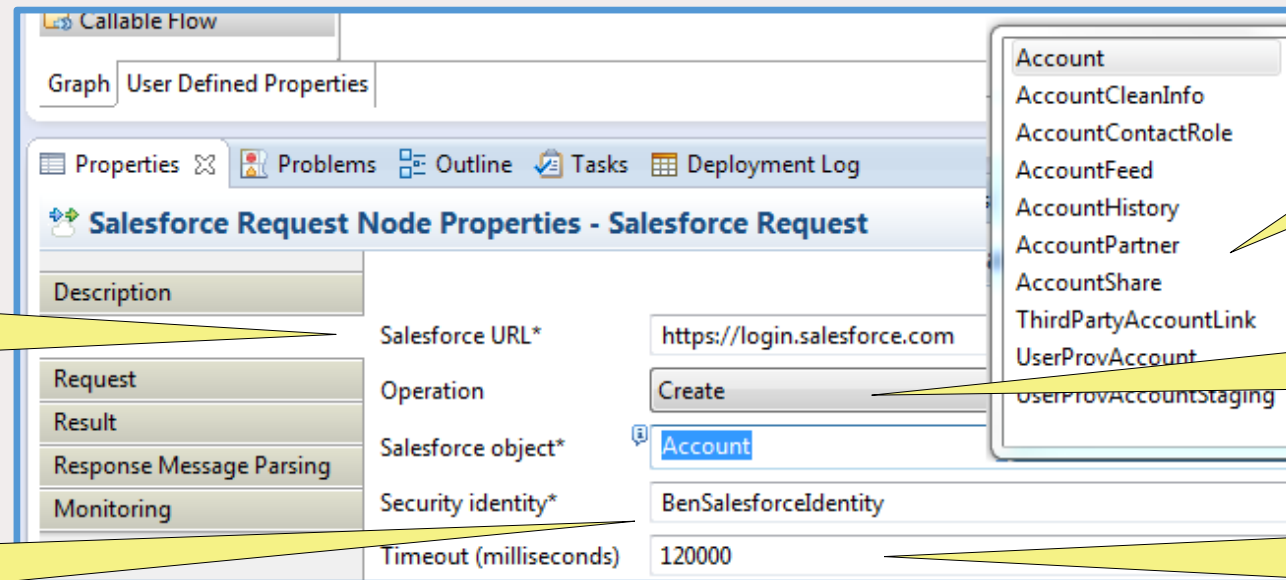


Salesforce Request node (Application Integration Suite)

- Built on top of LoopBack technology
- Uses the Force.com REST API to create, retrieve, update, and delete Salesforce records through a LoopBack connector.
- Input and output messages are in JSON.
- Windows and Linux x64 only.



Salesforce Request



Property	Value
Description	
Salesforce URL*	https://login.salesforce.com
Operation	Create
Salesforce object*	Account
Security identity*	BenSalesforceIdentity
Timeout (milliseconds)	120000

The URL of the Salesforce system you are connecting to

Choose from a list of Salesforce objects or specify a custom object.

Create/Retrieve/Update/Delete operation can be performed on the object

The security identity used by mqsisetdbparms

Timeout to wait for a response from Salesforce

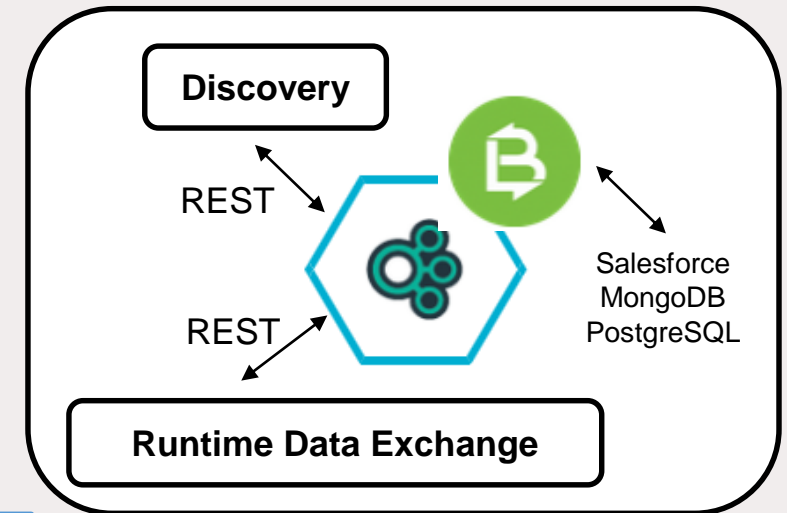
Using IIB for REST, Graphical Mapping & Salesforce: <https://youtu.be/XIK6QvNSHdY>

LoopBack Request node

IIB LoopBack Request node: https://youtu.be/rUK_OQ5-Anw

Using IIB to integrate with MongoDB and Cloudant: <https://youtu.be/ls1pphngUIM>

- Create, Retrieve, Update, Delete data records in external systems
- Interact with NoSQL databases such as MongoDB, Cloudant and PostgreSQL
- LoopBack is an Open Source node.js framework for authoring connectors – large open source catalog available on line
- npm tool helps you download and install LoopBack connectors which others have already written

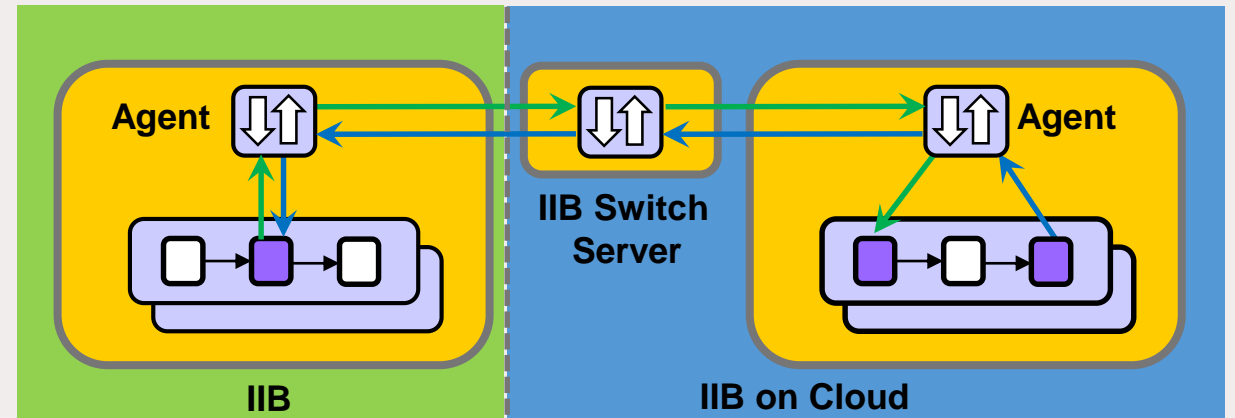
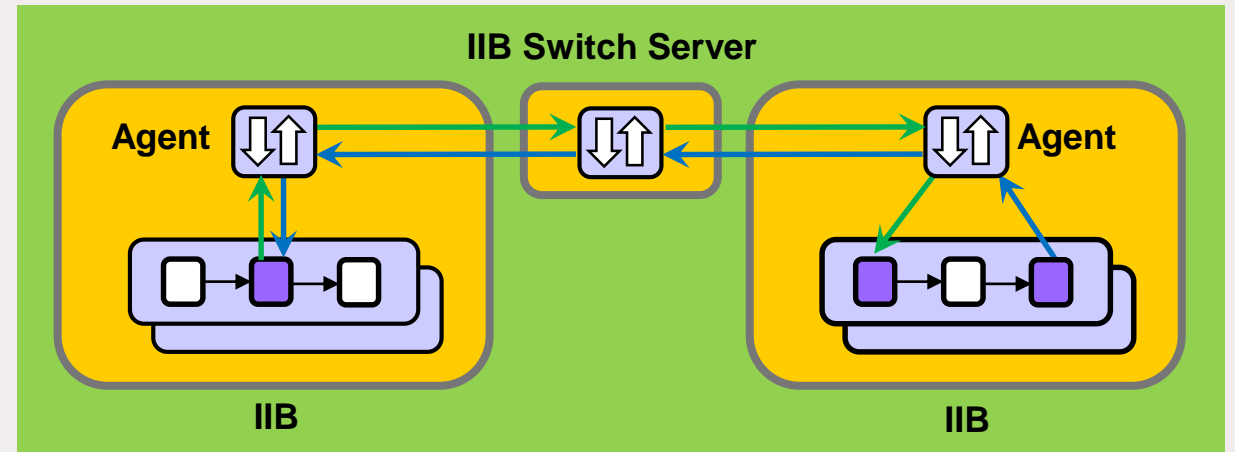


Loopback Request Node Properties - Loopback Request	
Description	
Basic	Location of the datasources.json file*
Request	Name of the data source in the datasources.json file to connect to*
Result	Loopback object*
Response Message Parsing	Operation
Monitoring	Security identity
	Timeout (milliseconds)

C:\Program Files\IBM\IIB\10.0.1267.5\server\nodejs\iib-loopback-connector\ds.json
BenDatabase
BenObject
Create
LoopbackIdentity
120000

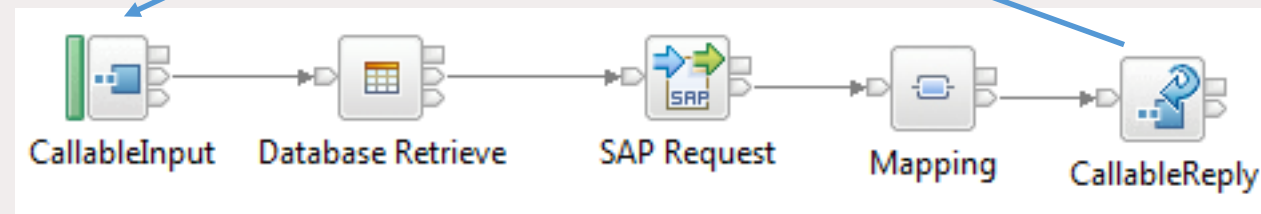
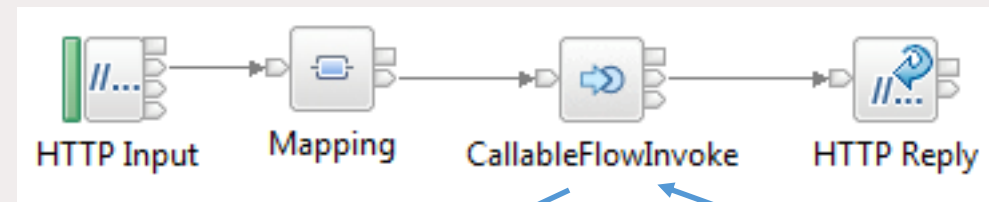
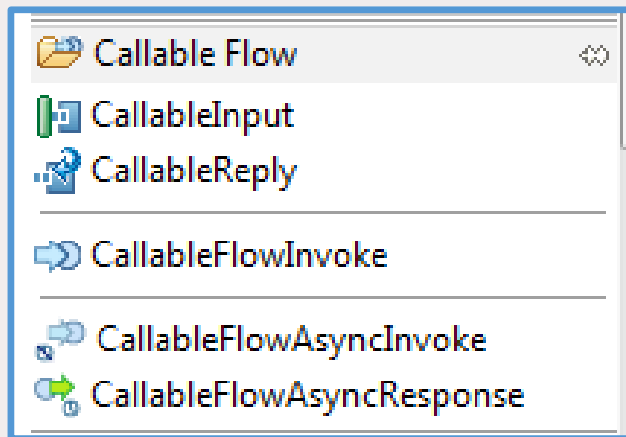
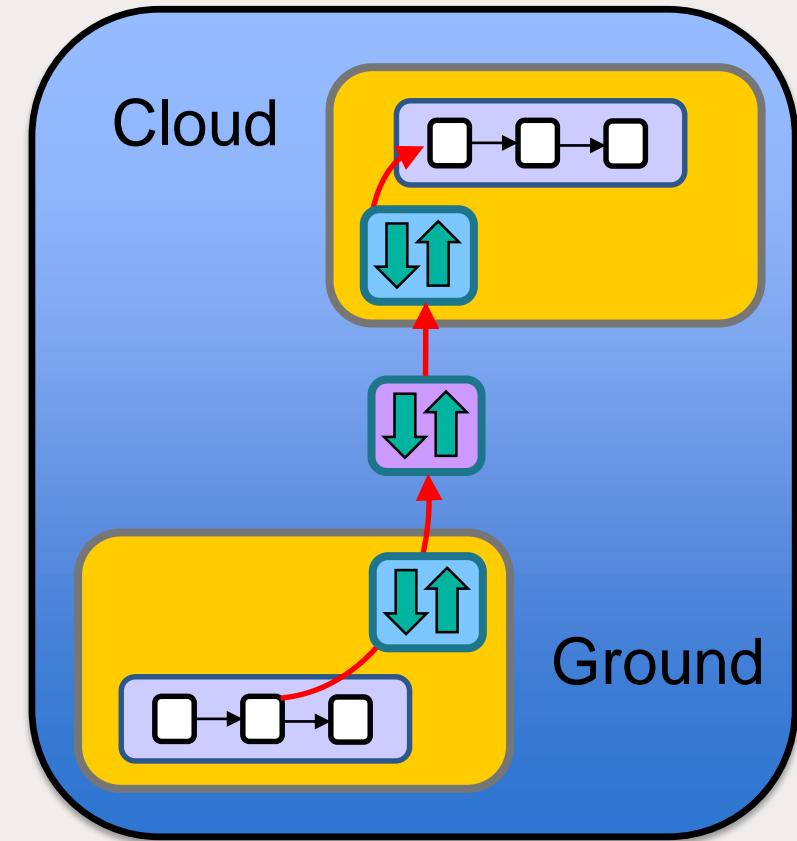
Hybrid Integration using the IIB Switch

- Simpler to run IIB in a cloud architecture due to deployment processing and flow runtime all coordinated using a single OS process
- Split processing between different Integration Servers
- Flows communicate using a Switch server and connectivity agents
- If callable flows are deployed in IIB (on-prem, in Docker, or in another vendor's IaaS such as AWS or Azure) then the agent contains certificates to secure the web socket connections to the Switch server
- If splitting work between IIB and IIB on Cloud, the Switch server is created and managed for you in the cloud



Callable Flows

- True Hybrid integration is achievable right now!
- Cloud burst workload when needed!
- Easily connect IIB running on ground with IIB on Cloud, and in Docker, pure application, other IaaS vendors etc.
- Dynamically control the CallableFlowInvoke node to route to different message flows for specific message traffic
- Dynamic behaviour is also useful for on-premise use cases
- CallableFlowAsyncInvoke and CallableFlowAsyncResponse added in v10.0.0.8



Exposing a REST API using IIB

Header

REST API base URL

Title

Version

You can access the operations in the REST API by pointing your web browser to the following URL, where <hostname> is the host name and <port_number> is the port number:
http://<hostname>:<port_number>/Customertransform/v1

Resources

Method	Operation	Description	Parameters	Response														
GET	get1	Retrieve customer	<table border="1"><thead><tr><th>Name</th><th>Parameter type</th><th>Data type</th><th>Format</th><th>Required</th><th>Description</th></tr></thead><tbody></tbody></table>	Name	Parameter type	Data type	Format	Required	Description	<table border="1"><thead><tr><th>Response status</th><th>Response message</th><th>Array</th><th>Type</th></tr></thead><tbody><tr><td>200</td><td>The operation was successful.</td><td><input type="checkbox"/></td><td><input type="text"/></td></tr></tbody></table>	Response status	Response message	Array	Type	200	The operation was successful.	<input type="checkbox"/>	<input type="text"/>
Name	Parameter type	Data type	Format	Required	Description													
Response status	Response message	Array	Type															
200	The operation was successful.	<input type="checkbox"/>	<input type="text"/>															
POST	post1	Insert a customer	<table border="1"><thead><tr><th>Name</th><th>Parameter type</th><th>Data type</th><th>Format</th><th>Required</th><th>Description</th></tr></thead><tbody></tbody></table>	Name	Parameter type	Data type	Format	Required	Description									
Name	Parameter type	Data type	Format	Required	Description													
PUT	put1	Update customer	<table border="1"><thead><tr><th>Name</th><th>Parameter type</th><th>Data type</th><th>Format</th><th>Required</th><th>Description</th></tr></thead><tbody></tbody></table>	Name	Parameter type	Data type	Format	Required	Description									
Name	Parameter type	Data type	Format	Required	Description													
DELETE	delete1	Remove from customer	<table border="1"><thead><tr><th>Name</th><th>Parameter type</th><th>Data type</th><th>Format</th><th>Required</th><th>Description</th></tr></thead><tbody></tbody></table>	Name	Parameter type	Data type	Format	Required	Description									
Name	Parameter type	Data type	Format	Required	Description													

Model Definitions

Name	Array	Type	Format	Required
<input type="text" value="<Enter a unique name to create a new model>"/>				
{...} customer		object		

Administering an IIB REST API

The screenshot displays the IBM Integration Center REST API console. The browser address bar shows the URL: `localhost:4418/#restApi/1/executiongroups/default/restapis/CustomerDatabaseV1`. The page title is "CustomerDatabaseV1 - REST API".

The left sidebar shows a tree view of the system structure, with "CustomerDatabaseV1" selected under "REST APIs".

The main content area shows the "API" tab with the following configuration:

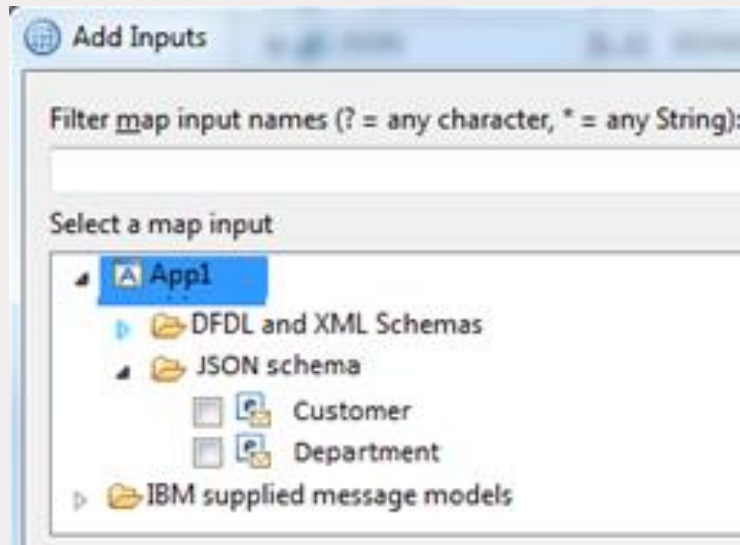
- Base URL For Remote Invocations: <http://9.140.102.163:7800/customerdbv1>
- Remote URL For The REST API Definitions: <http://9.140.102.163:7800/customerdbv1/swagger.json>
- Base URL For Local Invocations: <http://localhost:7800/customerdbv1>
- Local URL For The REST API Definitions: <http://localhost:7800/customerdbv1/swagger.json>

The API endpoints are listed as follows:

- /customers**
 - POST** **addCustomer** Add a customer to the database **Implemented**
 - GET** **getAllCustomers** Get all customers from the database **Implemented**
- /customers/{customerId}**
 - DELETE** **deleteCustomer** Delete a specified customer from the database **Implemented**
 - GET** **getCustomer** Get a specified customer from the database **Implemented**
 - PUT** **updateCustomer** Update a customer in the database **Implemented**

JSON Schema in the Graphical Mapper

- Easy graphical map creation from JSON Schema
 - Select JSON types from Swagger for source or target
 - When creating maps in a REST API Operation subflow, populate source and target from JSON types
 - Automatic update and validate the Query Path parameters edited within a REST API and used in a map
 - Add new Path Parameters section to LocalEnvironment
- v10.0.0.0: Basic JSON schema support via user defined elements
- v10.0.0.4: JSON schema (from Swagger import) added
- v10.0.0.6: Hold JSON schema inside Application projects in a REST API Catalog folder
- v10.0.0.8: Support for JSON allOf, anyOf, and one of

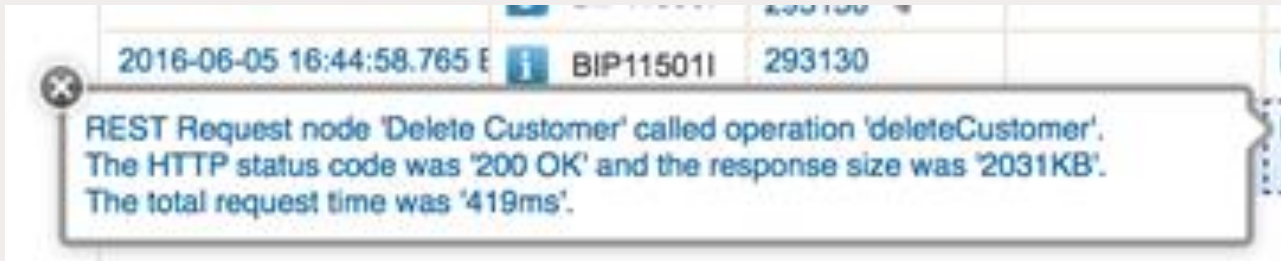


The screenshot shows a configuration table for a REST API Operation subflow. The table has two columns: the first column lists the configuration elements, and the second column shows their values. The 'Path Parameters' section is highlighted with a red box, and the 'customerId' parameter is also highlighted.

Element	Value
Message Assembly	JSON
<Click to filter...>	
LocalEnvironment	[0..1] _LocalEnvironmen
Destination	[0..1] _LocalEnvironmen
REST	[0..1] _LocalEnvironmen
Input	[0..1] _RESTInputType
Method	[0..1] string
Operation	[0..1] string
Path	[0..1] string
Path Parameters	[0..1] <Anonymous>
customerId	[1..1] int
URI	[0..1] string
Parameters	[0..1] <Anonymous>

REST Request, REST Async Request and REST Async Response

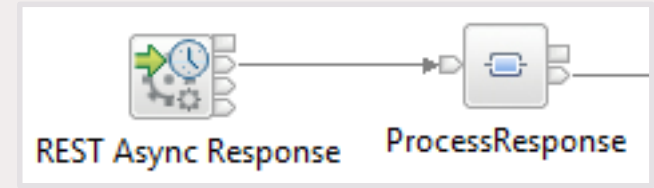
- Parameters specified using literals or extracted info from the input message
- Request and Response body data sourced from input message by default, but can be from elsewhere e.g. Environment tree
- Chain multiple REST Requests together without intervening transformations
- Accept header and Content-Type rules interact with standard IIB message parsers as you would expect
- Split request / response processing into separate threads of execution using REST Async Request and Response nodes
- Activity log for the message flow provides HTTP status code, response size, and total request time.



Thread 1



Thread 2



Name	Type	Description	Expression
Authorization	Header	Provide the authorization key that...	'suchASecretAuthKey'
customerId	Path	The ID of the customer to delete fr...	\$Root/XMLNSC/Message/DeleteReq/customerId
clientName	Query	Provide the authorization key that...	LocalEnvironment.Variables.CLIENT_NAME

Other new REST and HTTP Enhancements

- Swagger can now be stored in Application and Library projects in addition to REST API projects
- YAML format Swagger is also supported
- Casts for JSON types in the Graphical Mapping node
- HTTP Input Query Parameter splitting into Local Env
- REST APIs can now be deployed to the IIB runtime to use the node-wide HTTP listener
- CORS support is added to the node-wide listener too



The screenshots show the IIB graphical user interface. The top window displays environment variables for a message assembly, with 'any' selected. The middle window shows a REST API catalog for 'Swagger Petstore 1.0.0' with endpoints like 'createUser', 'deletePet', and 'getPetById'. The right window is a 'Type Selection' dialog showing a list of matching types such as 'Category', 'Order', and 'User'.

- When IIB responds to an inbound HTTP request, you can add a new **X-IIB-Timing** property to the HTTP Header to describe elapsed timings for the IIB processing of the request [accessLog = true]

```
mqsichangeproperties TESTNODE_10006 -b httplistener -n accessLog -v true
```

- Tomcat Access Log Valve feature is provided to add a new access log file to the IIB workpath [accessLogPattern]

```
mqsichangeproperties TESTNODE_10006 -b httplistener -o HTTPConnector -n accessLogPattern -v "%h %l %u %t '%r' %s %b '%{Referer}i' '%{User-Agent}i' IIB:'%{X-IIB-Timing}o'"
```

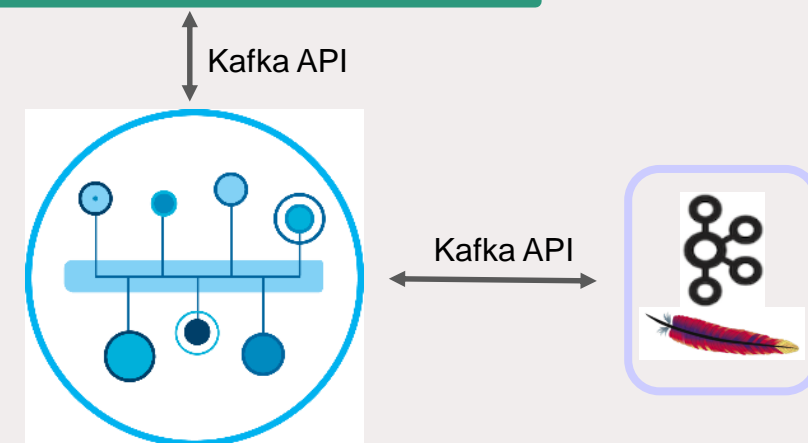
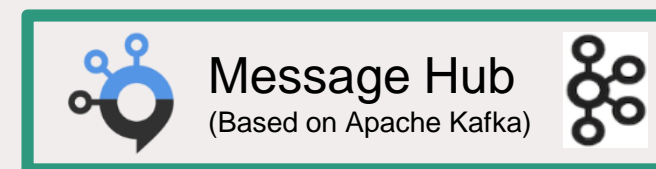
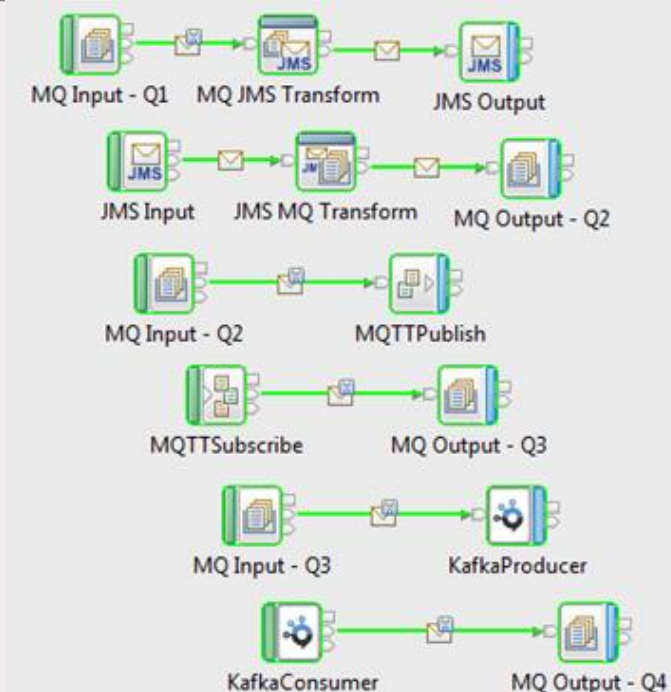
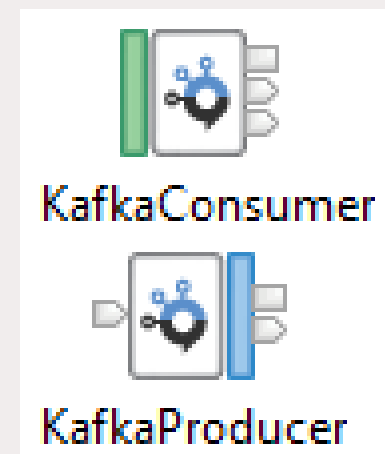

IIB, Kafka and Message Hub

KafkaProducer Node Properties - KafkaProducer		
Description		
Basic	Topic name*	myTopic
Security	Bootstrap Servers*	kafka01-prod02.messagehub.services.eu-gb.ibm.com:9093
Validation		e.g. bootstrap.server.com:9092 (multiple servers can be specified and delimited using a ',')
Monitoring	Client ID	Ben
	Add IIB suffix to client ID	<input checked="" type="checkbox"/>
	Acks*	0
	Timeout (sec)*	60

- Use IIB to interact with a Kafka Broker providing distributed commit log based messaging service
- KafkaProducer and KafkaConsumer nodes for connecting IIB message flows with Kafka
- Connect to either a private Kafka Server implementation or the IBM Bluemix MessageHub implementation
- Message flow developer provides Kafka consumer and producer configurations on the nodes
- Security: SASL_SSL security protocol based upon TLSv1.2
- Message Key support added in v10.0.0.8

IIB, Kafka and Twilio SMS: https://youtu.be/7mCQ_cfGGtU

Using Kafka with IIB: <https://youtu.be/kYv0crxL86Y>



Introducing IBM Cloud Product Insights

IBM Bluemix Integrate
Catalog Support Manage

← All items

Cloud Product Insights

Getting started Manage Service credentials Connections

All Products > IBM Integration Bus > DEV Register a product

← Back

View all

IIBNODE_one (2)

🔍 Search Instances (2)

sachin.hursley.ibm.com
 /home/boagm/IIB/iib-10.0.0.8/server?Node=IIBNODE_one,Server=is01

sachin.hursley.ibm.com
/home/boagm/IIB/iib-10.0.0.8/server?Node=IIBNODE_one,Server=is02

sachin.hursley.ibm.com
/home/boagm/IIB/iib-10.0.0.8/server?Node=IIBNODE_one,Server=is01

Usage Details Advisor


Resident Set Size

24 Hours

Latest update: Mar 20, 2017 | 15:00:00 GMT

Mar 19, 4:00 PM - Mar 20, 3:29 PM	
Maximum	447212 kilobytes
Average	406800.86 kilobytes
Minimum	298156 kilobytes
Last value	432856 kilobytes

Using Bluemix Product Insights to view IIB Registration and Usage

 **Product Insights**
 IBM Cloud Product Insights is an IBM Bluemix service to enhance and extend new value for connected IBM
Experimental

IBM425-R9E9V8K
 /C:/Program Files/IBM/IIB/10.0.0.7/server?Node=TESTNODE_MQ,Server=default

Usage Details Advisor

Software Environment

Product Name:
 IBM Integration Bus

Version:
 10.0.0.7

Host Name:
 IBM425-R9E9V8K

Directory:
 /C:/Program Files/IBM/IIB/10.0.0.7/server


Instance Identifier:
 Node=TESTNODE_MQ,Server=default

Last Started:
 Wed, Feb 8, 2017, 4:42:19 PM

Usage Details Advisor

Services Updates

Recommended Services
 We have **1 service** that may be useful to your **IBM Integration Bus system**.

 **Message Hub** | Ibm Dedicated Public ×

IBM Message Hub is a scalable, high-throughput message bus. Wire micro-services together using open protocols. Connect stream data to analytics to realize powerful insights. Feed event data to multiple applications to react in real time. Bridge to your on-premise messaging infrastructure to create a hybrid cloud messaging solution.

[Try Now](#) [Read More](#)

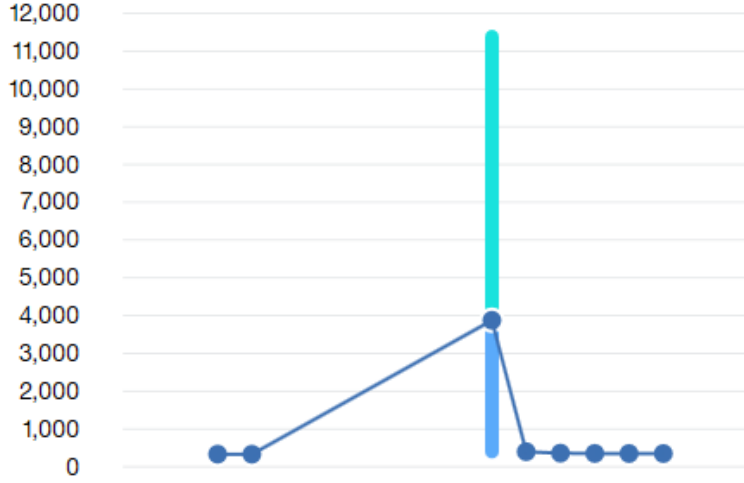
View all services in the Bluemix Catalog.

[More Cloud Services](#)

Usage Details Advisor

CPU used by process during this interval in mSec

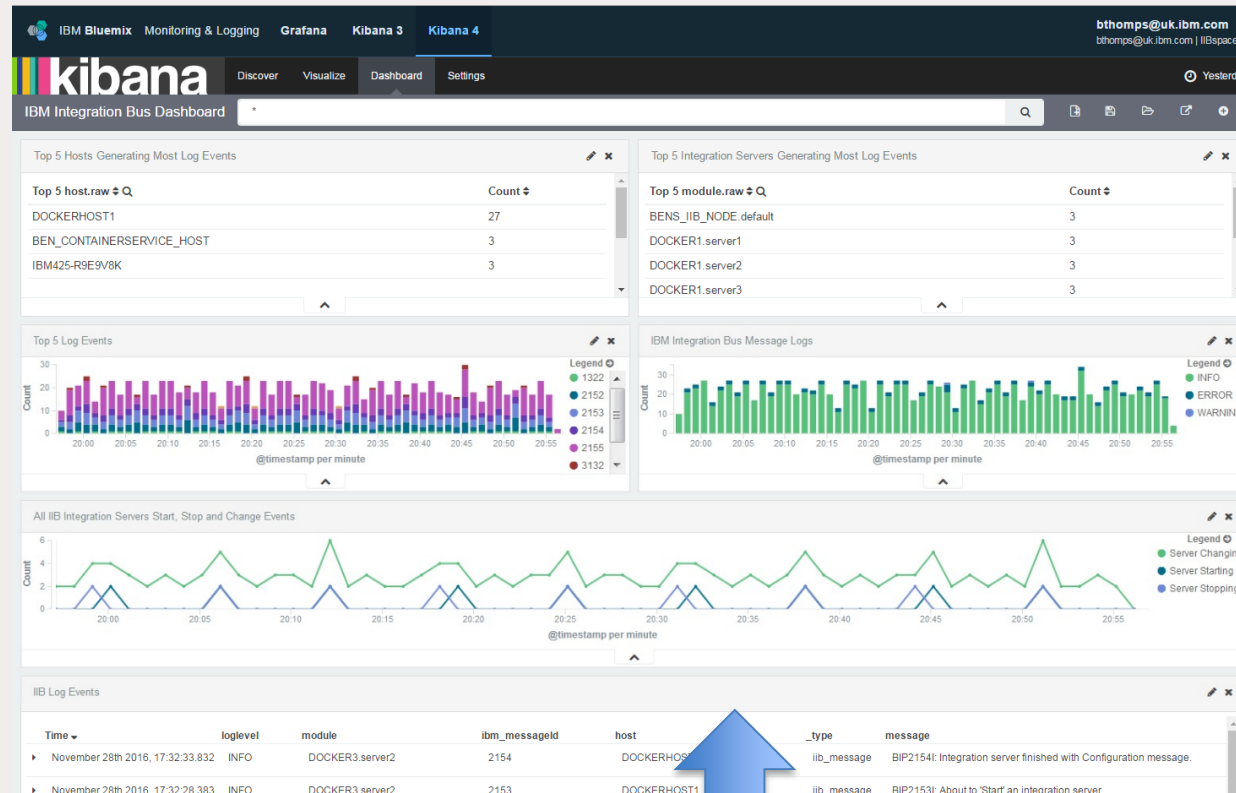
1 Month



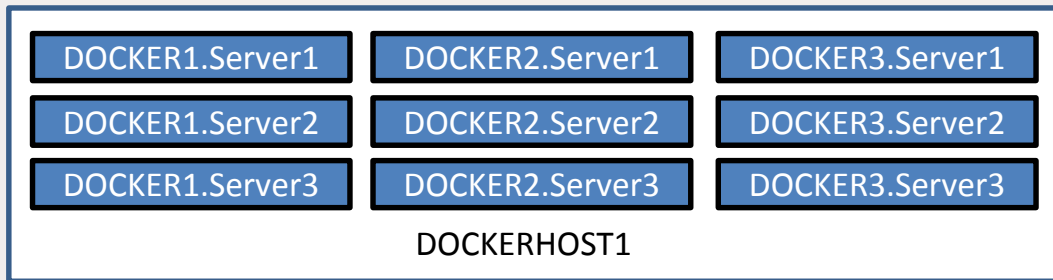
Summary Jan 16, 12:00 AM - Feb 16, 12:00 AM

Maximum	11,385
Average	692.09
Minimum	320
Total	563,363

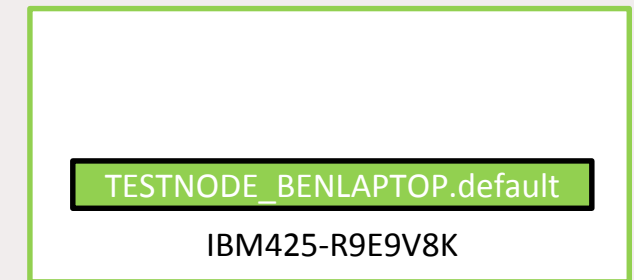
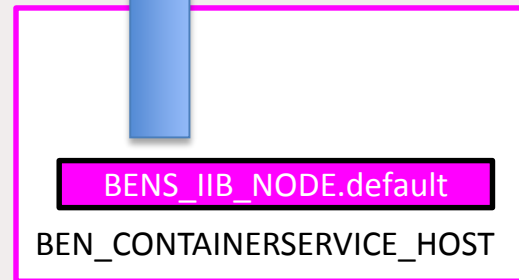
Using Bluemix Kibana dashboards to view IIB Logs



IIB and Kibana dashboards:
<https://youtu.be/sCPrT2dHKsS>

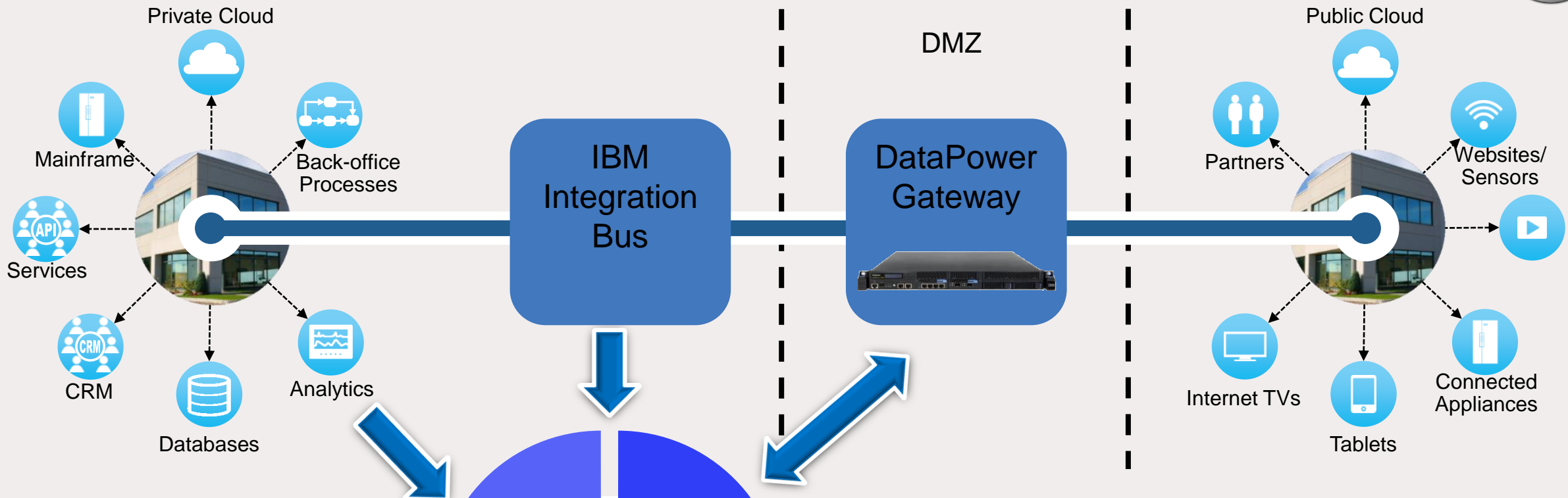


Docker

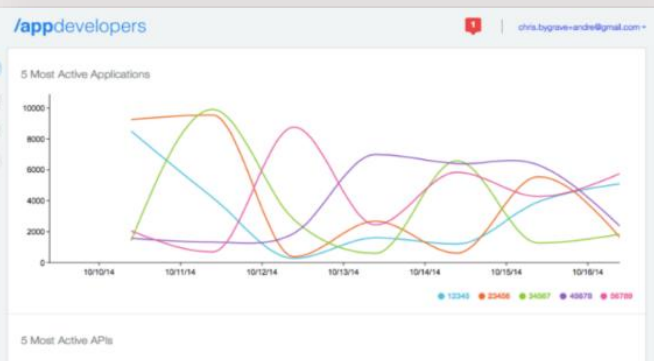


Windows

IIB and API Connect



- **Deployed IIB REST APIs can be pushed to API Connect from the IIB Toolkit**
 - Use IBM API Connect to promote and monitor the usage of the REST API
 - Secure and authenticate access requests from external applications
- **In IBM API Connect, begin by ensuring you have:**
 - A registered organization and email address for the API owner for logging in to the IBM API Connect console
 - A sandbox environment defined, and network connectivity
- **The IIB REST API is identified by API Connect server using the Swagger Title**



IIB and REST APIS: Session 2111 @ Thursday 10:30
Lightning Talk (Hybrid Cloud Integration Booth, Bayside B): IIB & REST @ Tuesday 17:00-17:20

Bulk Push IIB REST APIs to API Connect

Push REST APIs to IBM API Connect
Define a connection to the IBM API Connect system

Management Cluster / Server Address

Host:

Port:

Authentication

UserID:

Password:

✓ Successfully connected to IBM API Connect

- IIBv10.0.0.2 introduced an IIB Toolkit action to push a REST API definition into the draft workspace of API Management (now called API Connect)
- The next evolution of this feature provided a bulk push mechanism for the IIB Administrator, also allowing direct staging to an API Connect Sandbox environment
- The Open API Swagger (v2) metadata describing the IIB REST APIs is pushed to API Connect
- Use API Connect to manage the REST APIs (from IIB and other products within your enterprise) including definition of security policies, access rules, SLAs and usage analytics
- Associate multiple REST APIs underneath a Product definition

IIB Sessions at Interconnect 2017

Session
2110A What's New in IBM Integration Bus
2141A IBM Integration Bus Futures and Strategy (<i>Inner Circle only</i>)
2158A Technical Introduction to IBM Integration Bus
2118A Developing Integrations for IBM Integration Bus on Cloud
2144A IBM Integration Bus Customer Roundtable
2121A Docker and IBM Integration Bus
2151A Effective Administration of IBM Integration Bus
7445A Application Integration Suite Meet the Experts
2144B IBM Integration Bus Customer Roundtable
2124A Operational and Business Monitoring with IBM Integration Bus
2111A IBM Integration Bus and REST APIs
2166A IBM Integration Bus Version 10 Hands-On Scheduled Lab
2166B IBM Integration Bus Version 10 Hands-On Scheduled Lab
9402 IBM Integration Bus Version 10 Hands-On Open Lab

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