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What's New in WebSphere Message Broker [z/OS & Distributed]

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IBM

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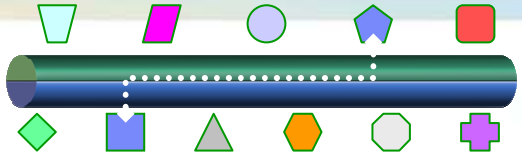
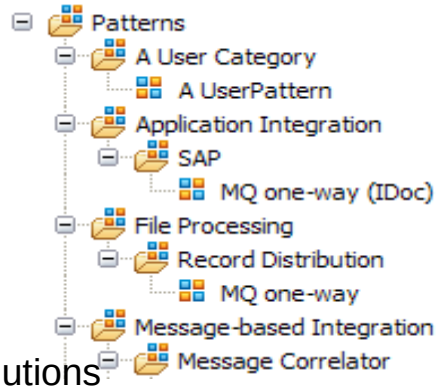
WebSphere Message Broker



- **Universal Connectivity FROM anywhere, TO anywhere**
  - Simplify application connectivity for a flexible & dynamic infrastructure

- **Comprehensive Protocols, Transports, Data Formats & Processing**
  - Connect to applications, services, systems and devices
    - MQ, JMS 1.1, HTTP(S), SOAP, REST, File (incl. FTP, FTE, ConnectDirect), Database, TCP/IP, MQTT, CICS, IMS, SAP, SEBL, .NET, PeopleSoft, JDEdwards, SCA, CORBA, email…
  - Understand the broadest range of data formats
    - Binary (C/COBOL), XML, CSV, DFDL, JSON, Industry (SWIFT, EDI, HL7…), IDOCs, user-defined
  - Built-in suite of request processors
    - Route, Filter, Transform, Enrich, Monitor, Publish, Decompose, Sequence, Correlate, Detect…

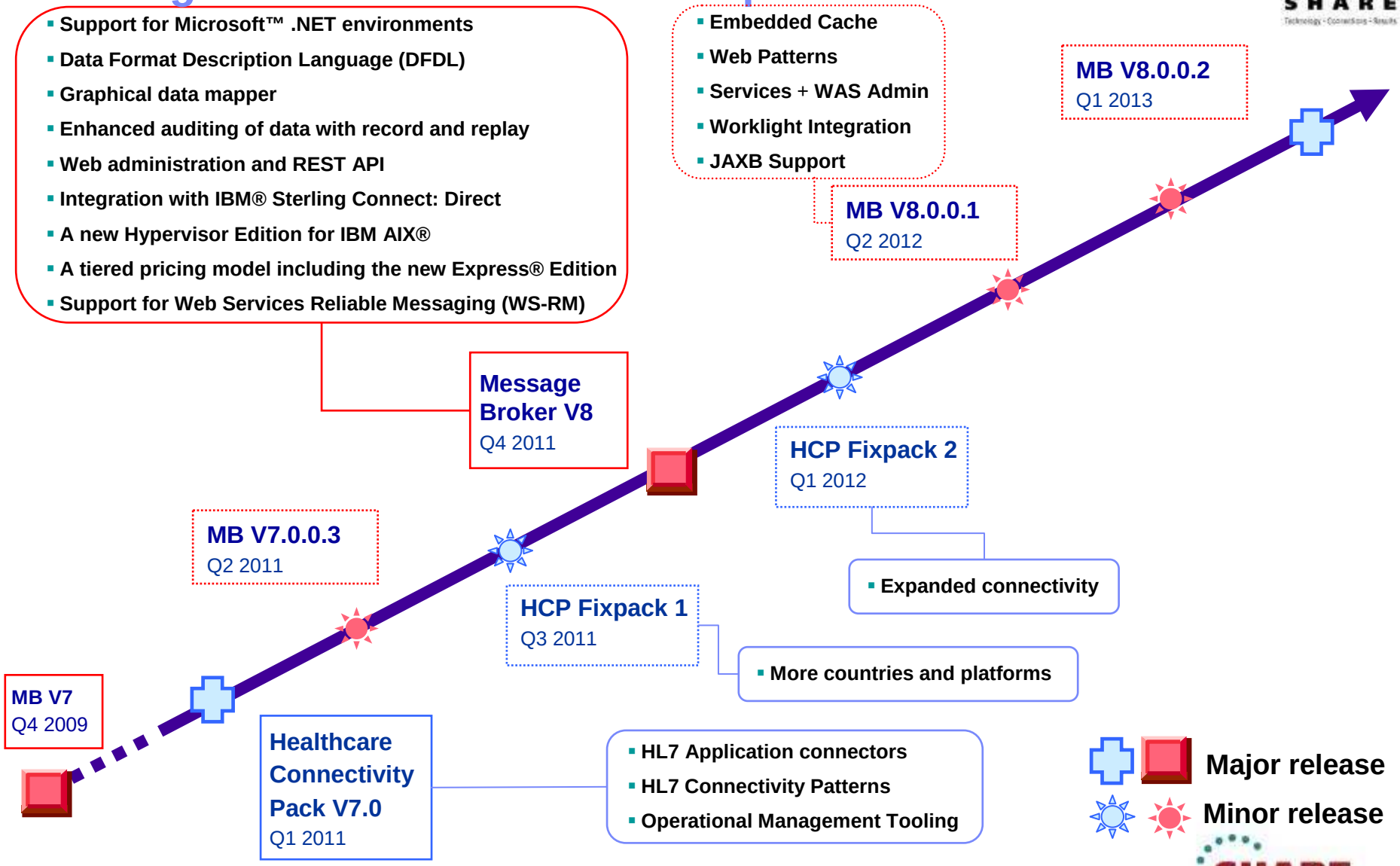
- **Simple Programming with Patterns & Graphical Data Flows**
  - Patterns for top-down, parameterized connectivity of common use cases
    - e.g. Service façades, Message processing, Queue2File…
    - IBM & User defined patterns for development reuse & governance
  - Graphical data flows represent application & service connectivity
    - Custom logic via Graphical mapping, PHP, Java, ESQL, XSL & WTX



- **Extensive Management, Performance & Scalability**
  - Extensive Administration & Systems Management facilities for developed solutions
  - Wide range of operating system &hardware platforms supported, including virtual & cloud options
  - High performance transactional processing, additional vertical & horizontal scalability
  - Deployment options include Trial, Express, Standard and Advanced

- **Connectivity Packs for Industry Specific Content**
  - Connectivity Pack for Healthcare includes HL7 Connectors, Patterns & Tooling

Message Broker Product Roadmap



IBM's plans, directions, and intent are subject to change or withdrawal

Message Broker Themes

- **Simple & Productive**
  - Making it easier and quicker to develop and manage MB solutions
    - Learn, Develop, Deploy, Manage, Migrate quickly and easily
- **Universal & Independent**
  - Connecting MB to a range of different systems
    - Universal connectivity includes standards, de facto standards, industry and custom systems

- **Industry Specific & Relevant**
  - Provide industry relevant connectivity packs to solve domain specific problems
    - Industry specific nodes, solution-oriented patterns & user-oriented tooling

- **Dynamic & Managed**
  - Allow the creation of dynamic and governed solutions
    - Design solutions for easy, flexible change with appropriate control
- **High Performing & Scalable**
  - Provide a platform and technology neutral connectivity option
    - Work on the widest possible range of hardware, software and virtualized environments

V8.0.0.0 Recap

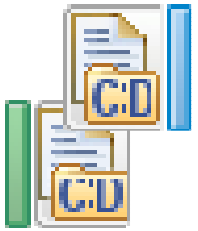
- **Simple & Productive**
  - Apps & Libs for streamlined development, packaging, deployment & management
  - New .NET pattern, customization enhancements & user defined pattern editors
  - Express Edition starting point for departmental capability, capacity & price needs
  - Programmable message flow API for totally flexible solution creation and customization

- **Universal & Independent**
  - New B2B nodes for Sterling Connect Direct
  - Simple & high performing data modelling with DFDL
  - Code-free graphical transformations with GDM
  - Enhanced JMS connectivity, including JMS Receive node
  - SOAP nodes now support W3C WS-RM
  - Database & file enhancements

- **Industry Specific & Relevant**
  - Healthcare Connectivity Pack
    - Clinical application connectivity, healthcare patterns & end-user tooling

- **Managed & Dynamic**
  - Web 2.0 browser console with REST management API for ubiquitous access
  - Record & Replay to capture, view, edit & replay in-flight messages
  - Message flow activity trace for rapid flow analysis by end-users
  - Deployable sub flows, ESQL, Maps & schemas for dynamic transforms
  - IBM Workload Deployer for x/Linux & AIX private clouds

- **High Performing & Scalable**
  - Extended platform support with deep .NET integration



Microsoft® .NET

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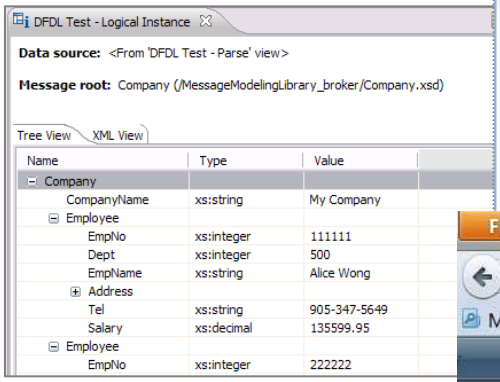
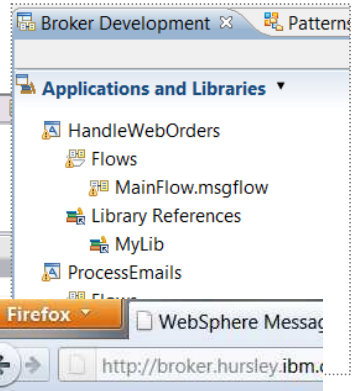
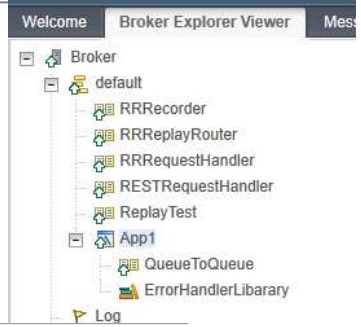
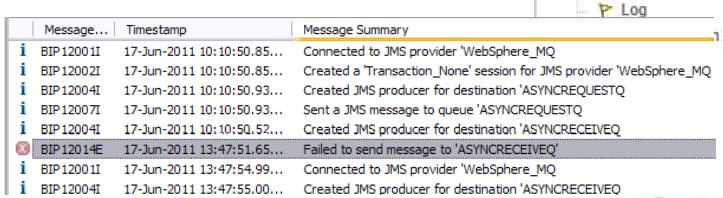






JMS Receive



V8.0.0.1 Content At a Glance

- **Simple & Productive**
  - Improved web admin: Role based access to view/control resources backed by public REST API
  - Instantiate and deploy patterns from the web
  - Simplified conversion of maps, and projects to applications and libraries
  - Data lineage tools to understand the origin and history of data elements

- **Universal & Independent**
  - DFDL improvements including C importer and field length prefixes (e.g. for ISO8583)
  - Web services enhancements including async HTTP, broker wide SOAP listener and IHS configuration
  - JAXB support to make it easier to address message elements in Java
  - Mobile Services support with IBM Worklight including new patterns and MB Toolkit integration
  - Better integration for Application Server users including services support and Admin Console

- **Industry Specific & Relevant**
  - Healthcare Connectivity Pack: Medical Device Support
  - Retail sample updates to support ACE V732

- **Managed & Dynamic**
  - Improved UI for Record and Replay
  - Improved support for cloud deployments including IWD, PureSystem and IBM SmartCloud image
  - Source deploy, subflow overrides, mqsicreatebar and direct deployment of .NET assemblies
  - Dynamic FTP and SFTP servers and pre- and post- commands

- **High Performing & Scalable**
  - Built-in WebSphere Extreme Scale global cache for highly available and scalable data sharing
  - Support for MQ 7.1 and 7.5

A Broad Range of Supported Platforms and 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
  - IBM Workload Deployer for x/Linux & AIX; .NET CLR V4 for Windows
  - New support for IBM Pure and SmartCloud (see later)

- **Optimized 64-bit support on ALL platforms**
  - Execution group size is 64 bit & all commands are 64 bit on all platforms
  - Maintain 32bit option for developers on Windows & x/Linux platforms

- **Built in ERP Connectivity using WebSphere Adapters**
  - Connectivity to SAP, Siebel, JDE, PeopleSoft now at no additional cost

- **Full range of industry standard databases**
  - DB2, Oracle, Sybase, SQL Server, Informix, solidDB
  - Open Driver Manager support enables new databases to be accessed
    - Contact IBM for details on Teradata, PostgreSQL, Cache & Progress

- **MQ 7.0.1 prerequisite**
  - Minimum prerequisite as MB7 simplifies migration
  - MQ 7.1 and 7.5 now also supported as either primary or secondary install (see later)

- **Java 6 on all platforms**
  - 64 bit IBM J9 engine for superior Java performance

- **Detailed MB8 System Requirements**
  - See www.ibm.com/software/integration/wbimessagebroker/requirements/

Easy Migration and Co-existence

- **Migration from V6.1 and V7**
  - Message flows, message sets, ESQL, Java, Maps and XSLT run without change
  - Includes automatic migration of existing MB6.1 32 bit execution groups to 64 bit
  - Migration from V8.0.0.0 not necessary; apply V8.0.0.1 as standard maintenance

- **Migration commands for in-place migration**
  - Includes migration of all configuration data including broker databases, queues and registry
  - Forwards and backwards migration of existing components, in situ
    - **`mqsimigratecomponents`** command (includes **`-t`** option for rollback)

- **Co-existence for incremental migration**
  - MB8 co-exists with MB6.1 & MB7 to enable incremental migration
  - MB8 Explorer administers MB7 and MB8 brokers
    - New web admin can only administer MB8 and higher brokers

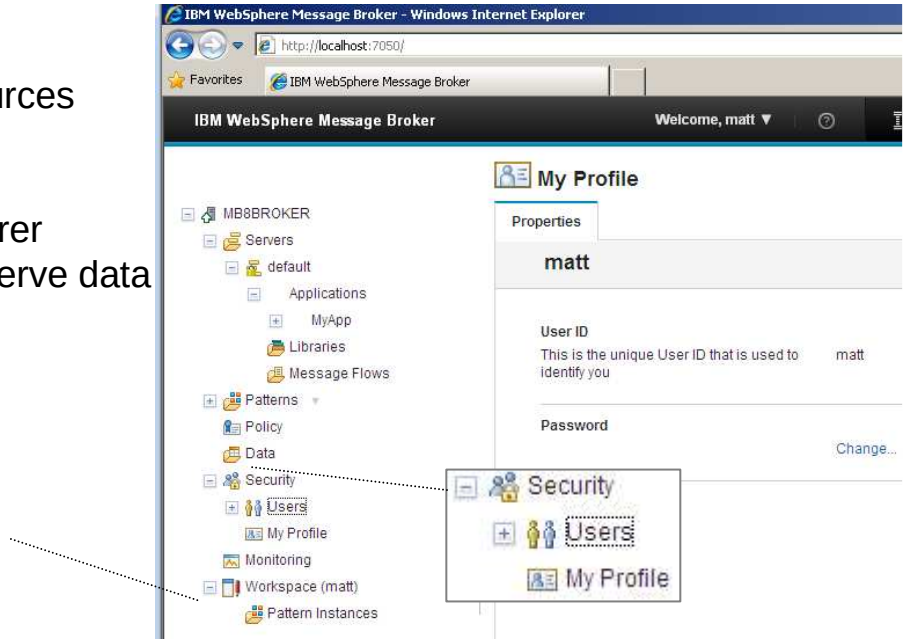
- **Publish Subscribe migration**
  - MQRT clients migrated to MQ7 clients with new MQ7 facilities for message streaming
  - MQTT and multicast clients use native MQ nodes with MQ7.0.1 & MQ7.1 respectively

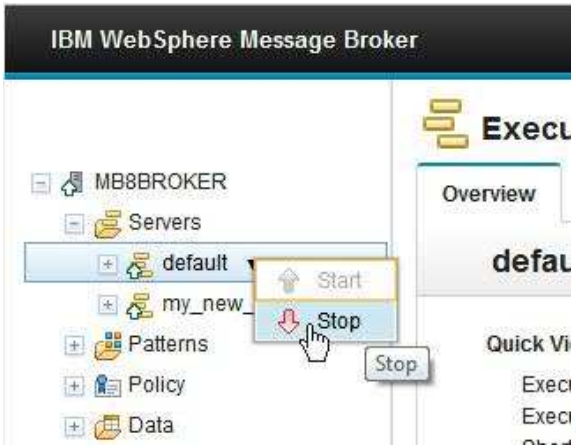
Web Administration for Universal Access

- **Web administration console**
  - Objective is to provide comprehensive web interface
    - Focus on non-admins to understand broker resources
  - Supports for major browsers
  - Designed as a complement to MBExplorer
    - MB Administrators can continue to use MB Explorer
  - Easy to configure – uses internal HTTP(S) server to serve data

- **Role-based access and security**
  - Builds on existing Broker security model (MQ OAM)
  - Web UI features based on role
    - e.g. Power users can start message flows
    - e.g. End users can view only
  - Profile pages to manage user information

- **Improved content display and update operations**
  - Start and stop message flows and execution groups
  - Tree view for consistent object display
    - Select deployed files and property details
    - Deployed policies (e.g. configurable services)
    - Monitoring views and data stores
    - Workspace views for pattern development…





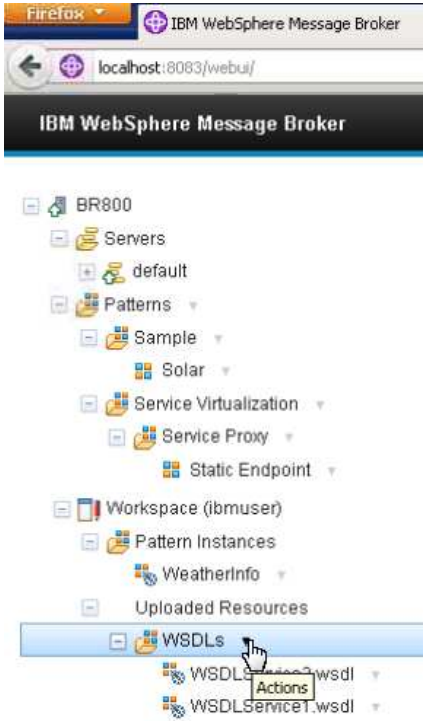
Web-based Patterns for Easy Solution Creation

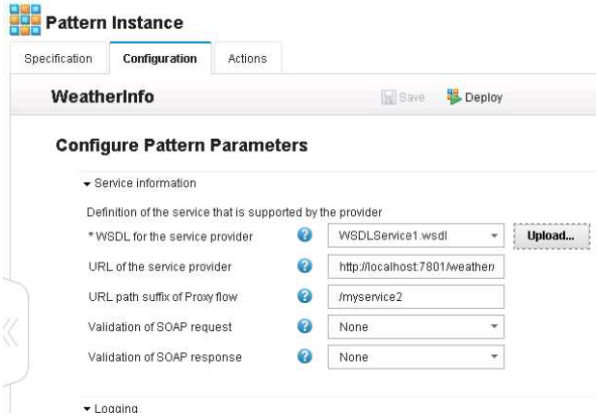
- **Patterns Based Development**
  - Quickly create best practice solutions from pre-built templates
    - e.g. WS façades, message processing, file to queue…
  - IBM pre-supplied & User Defined Patterns
    - Create & share user patterns
    - Including community downloads

- **Web-based quick & simple pattern generation**
  - Allows end users to configure repeatable solutions
  - New tool aimed at web user
  - Configure and deploy patterns directly to broker
  - Role-based access & security for appropriate authorization

- **Complements existing tools**
  - Pre-built, user-defined and imported patterns
  - Design allows for future inclusion of user patterns
    1. Build .patternzip in MB Toolkit
    2. Import for web tool
    3. Configure and deploy
  - Exploits source deployment (see later)
  - Move from test to QA to production

- **Operational Management**
  - Manage patterns using standard MB tools
    - e.g. MBX, web UI, CMP…





Improved Record & Replay

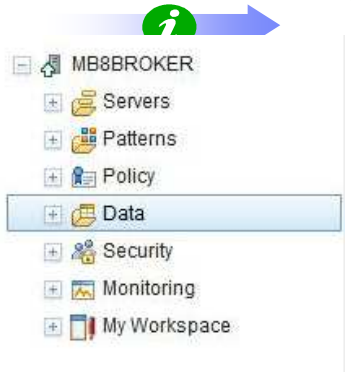
- **MB V8.0.0.0 allows you to record and replay in-flight data**
  - Comprehensive audit of messages, web, ERP, file & other data
  - Flexible topology: single or multiple brokers for recording, capture & replay
  - Replay for redelivery or flow reprocessing
  - Filter, view, query and replay tools

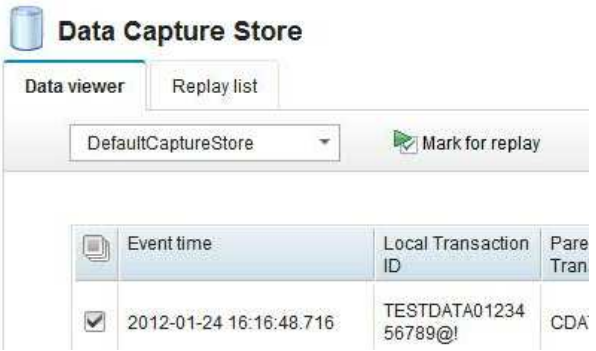
- **New support for Oracle database**
  - Capture data into both DB2 and Oracle

- **Web UI data viewer**
  - Scenarios include system loading and variation testing
  - View directly in the browser
    - Supports both part and full message payload view
  - Role-based access to only allow authorized users to view data

- **Flexible customization of column views**
  - Add new fields, and hide unwanted or irrelevant fields
    - Allows for a cleaner UI for faster and easier searching
  - Quickly view appropriate information for each record
  - Customizations are described at the data store level
    - Allows for consistent views of data across users

record view replay

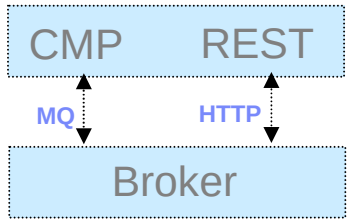




Event time	Local Transaction ID	Parent Transaction ID	Global Transaction ID	Data	Exception	User data	Event type
2012-01-24 16:16:48.716	TESTDATA01234 56789@!	CDATA	001		-	N	CDATA.OutTerminal

Open Management with REST

- **REST based management API**
  - MB V8.0.0.0 supports HTTP/REST management API
    - Complements & compatible with existing CMP interface
  - Develop MB administration tools without installing any MB components
    - HTTP client can manage MB independent of CMP
    - Includes new interface for message record & replay



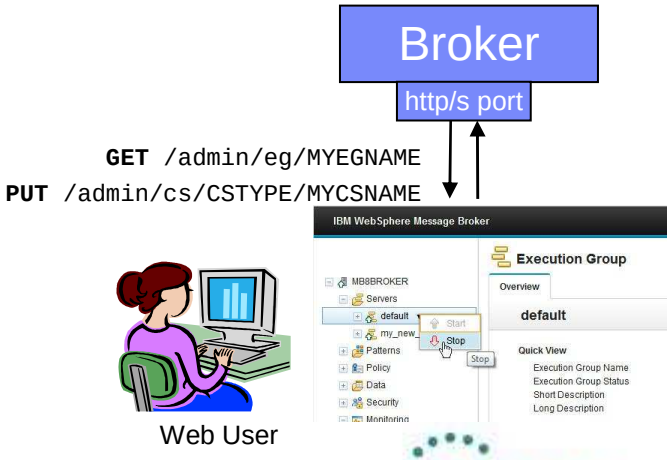
- **Fully open interface can be exploited by 3rd party tools**
  - HTTP REST/ATOM formats published & maintained for use by external users
  - Enables widgets, mash-ups & other situational applications

- **Read and update operations available on MB Resources**
  - V8.0.0.1 implementation of PUT verb provides update of key resources, complements existing GET
  - Includes execution groups, message flows, configurable services and web service endpoints

```
PUT /admin/eg/MYEGNAME HTTP/1.1
From: me@ibm.com
User-Agent: MyApp/1.0

<?xml version="1.0" encoding='utf-8'?>
<executiongroup
     description.long="" description.short="" ... >
</executiongroup>
```

```
HTTP/1.1 200 OK
Date: Fri, 10 Jun 2011 23:59:59 GMT
Content-Type: text/html
Content-Length: 427
...
```

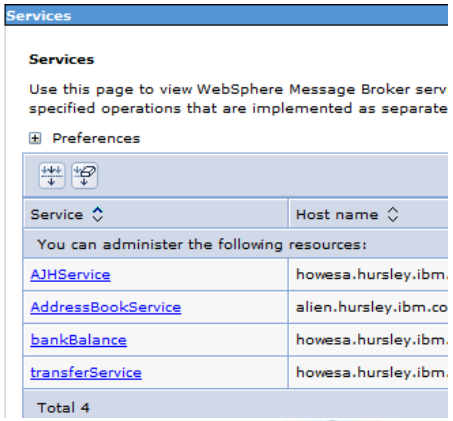


Natural Integration with WAS Admin Console

- **MB8001 is a compelling choice for WebSphere Application Server**
  - WAS provides efficient application development and delivery
  - New tools to simplify MB learning curve for WAS users
  - Addresses administrator requirements
  - Supported on WAS V7 and V8

- **WAS Admin Console Broker Plug-in**
  - Varied set of MB administration tasks available
    - Connect to multiple local or remote brokers
    - View available execution groups and their current status
    - View services, applications, libraries, message flows
    - View Message Broker console help topics
  - Uses standard MB features for ease of configuration
    - Role-based access to prevent unauthorized administration
    - Uses MB REST APIs for local and remote management
    - Use WAS Admin Console for WAS centric administrator
    - Complements V8 MB Web UI for MB centric administrator
  - Design allows for future modification of WMB resources, start, stop etc.

- **Fully compatible with WAS ND**
  - In 8.0.0.1, the Message Broker feature operates at cell level.
  - The configuration data is stored by the Deployment manager.
  - All Application Servers have access to cell level configuration data.

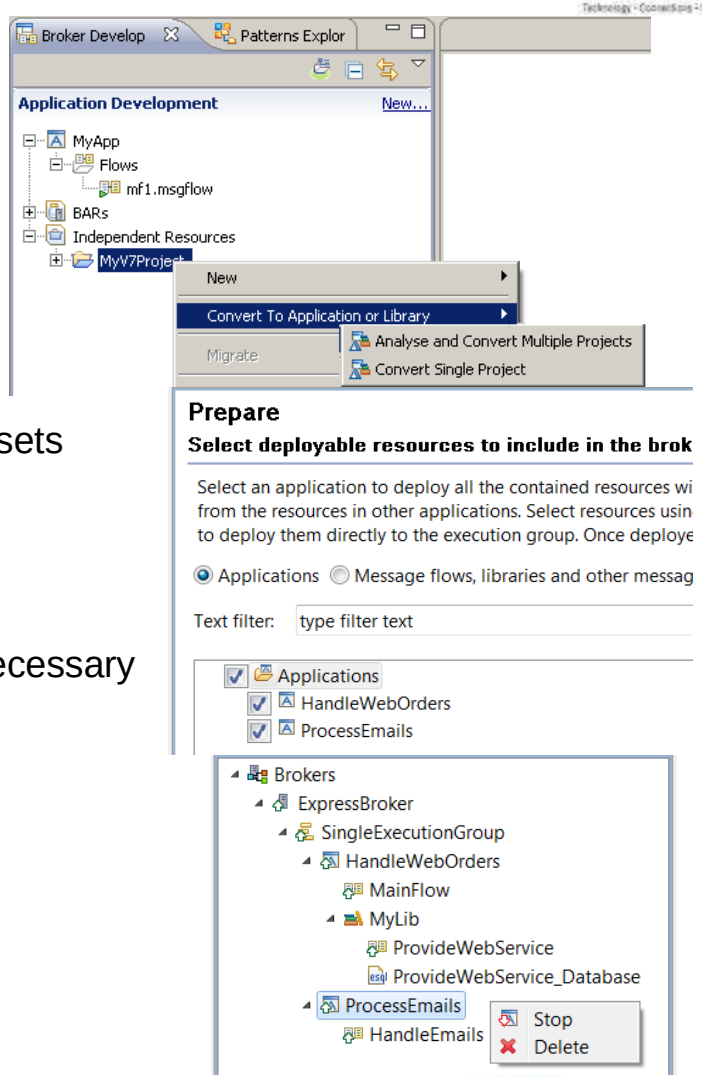


Easy to Develop, Deploy & Manage

- **Apps and Libs provide streamlined AD & Management**
  - Applications contain solution specific resources
  - Libraries contain common resources
  - New & migrated resources grouped into Apps & Libs
    - Encourages designing for reuse
    - Simplifies deployment & management

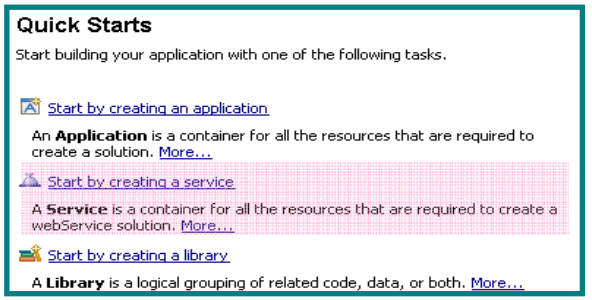
- **Flexible conversion of existing MB Toolkit projects**
  - New built-in tool simplifies conversion of V6.1/V7 AD assets
  - Convert all projects at once, or stage as appropriate
  - Toolkit intelligently suggests target container type
    - Top level projects become applications
    - Dependent resources projects become libraries
    - Convert between applications/libraries/projects if necessary
  - Deployed resources not affected

- **Other enhancements**
  - Edit Java in Broker or Java Eclipse perspectives
  - Simplification of WSDL import
    - Import remote WSDL into an app or lib
    - Simplified UI for import tasks
  - Update mqsiapplybaroverride to support apps and libs
  - Improved isolation for SOAP attributes (QName)

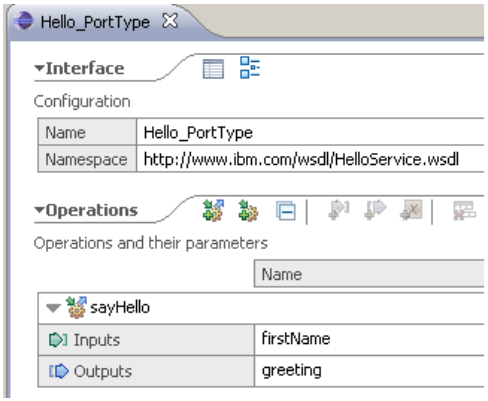


Create and Manage Services for SOA

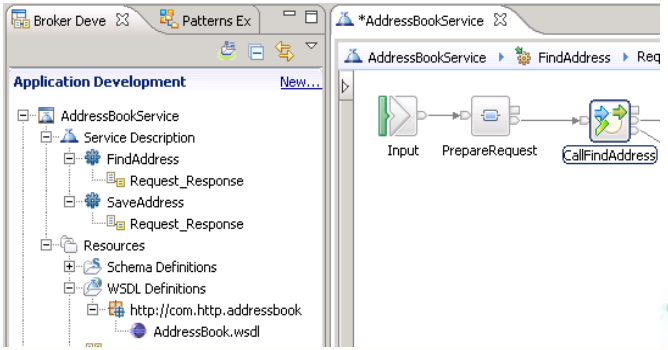
- **Applications, Libraries and Services**
  - Services are “well-defined” applications
    - Services promote encapsulation and isolation for SOA solutions
    - Service interface is expressed via WSDL with a port type
  - Interface and structure are both required
    - e.g. Request, response & fault handlers per operation
    - Default binding is created out of the box



- **Services are defined through standard resources**
  - WSDL (port type) defines service interface
  - Service interface defines one or more operations
  - Service Descriptor (XML) ties service interface with the service implementation
  - Each operation is implemented as a .subflow file
    - Supporting resources also associated (e.g. Maps, ESQL, XSDs)
    - Resources optionally reside in libraries
  - Main entry point is implemented as a .msgflow

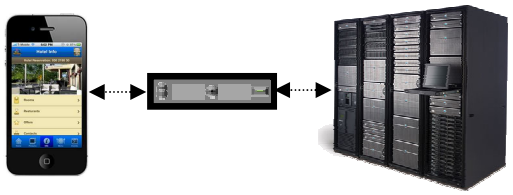


- **Simple lifecycle for services creation and management**
  - Simple creation of new services
    - Creating a new “Service” container
    - Import WSDL or create from scratch
    - Implement services
    - Specify binding before or during deployment
  - Deployment as per standard MB applications
  - Unit Test and Team options available

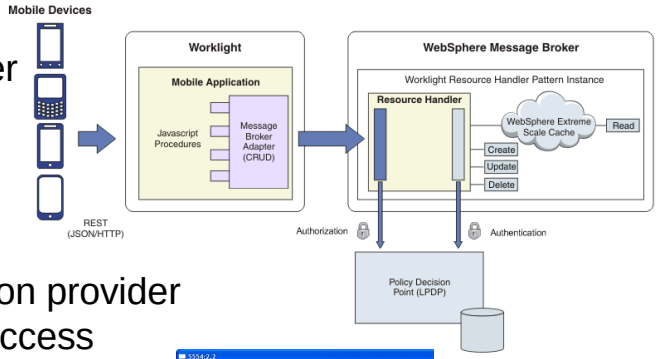


Easily Create and Access Mobile Services

- **New Worklight integration with MB makes developing mobile services simple**
  - Four new patterns makes mobile services integration quick and easy
  - Toolkit support to convert existing WMB Services into Mobile Services
  - Pattern source included for flexible customization for other tools



- **.NET Mobile Service Pattern**
  - Integrates mobile applications with Message Broker .NET web services
  - Simple to configure: drag and drop .NET assembly and enter Worklight adapter details
  - Worklight adapter generated which reflects the web service methods
  - One procedure is generated for each operation on the web service
  - Pattern also creates a mobile application to test the Worklight adapter

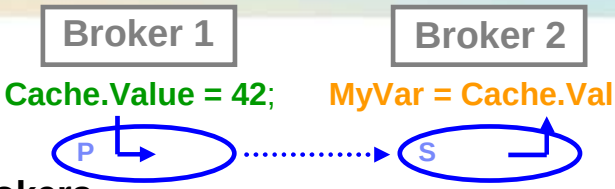


- **Generic Resource Handler Pattern**
  - Create, update, read and delete back-end data from mobile app
  - User implements CRUD operations using stub subflows
  - Secured access using built-in external authorization and authentication provider
  - Caching of read resources in built-in WXS for high performing data access

- **Push Notification Pattern**
  - Worklight supports asynchronous push notifications to mobile applications
  - Pattern creates a push notification adapter from a WebSphere MQ queue

- **Mobile Service Enablement in MB Toolkit**
  - Right-click option to mobile-enable existing MB services
    - Create a mobile-enabled service in as few as two clicks!
  - Also available as a Pattern for further customization

Global Cache

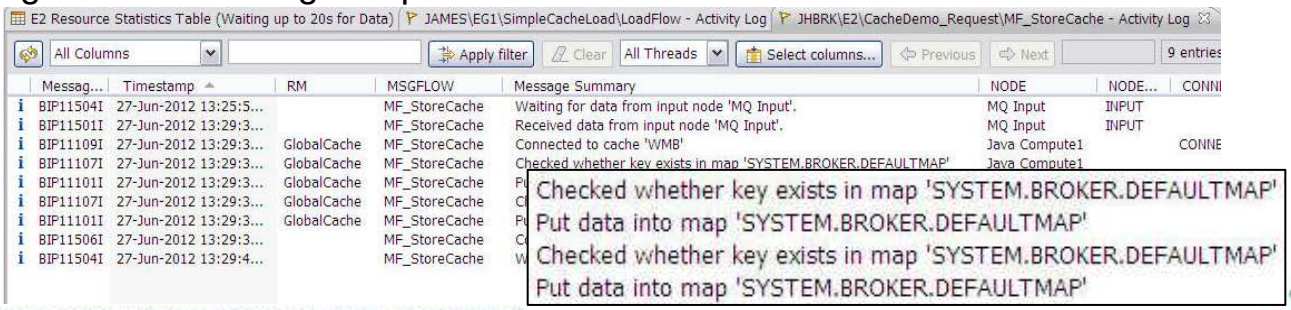


- **New Built-in facility to share data between multiple brokers**
  - Global cache shared between flows, execution groups & brokers
  - Seamless access to global cache using from all message broker flows and nodes
  - Typical scenarios include multi-broker request-reply and multi-broker aggregation
  - Improve mediation response times and dramatically reduce application load
  - Uses WebSphere Extreme Scale coherent cache technology to replace existing IA91 Support Pac

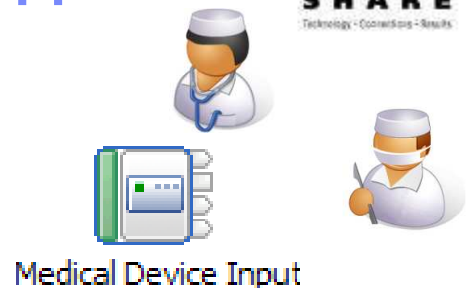
- **Easy Read and Write Access to Global Cache**
  - Accessed via global map data type corresponding to MB global cache
  - Read and write access in same way as other data types e.g. **`LocalEnvironment, MyVariable`**
  - Broker has own system cache for inter-broker information sharing
  - Support for external caches through embedding WXS JARs in JavaCompute node

- **Simple to Configure and Manage**
  - MB Cache completely contained within MB OS processes – no extra moving parts to configure
  - Flow write to global cache is replicated to other cache members using WXS technology
  - MB local cache can be administered via Explorer, command line & management API

- **Monitoring and Reporting**
  - Full resource manager statistics shows cache interactions and other relevant statistics
  - Activity log shows cache agent operations for write and read

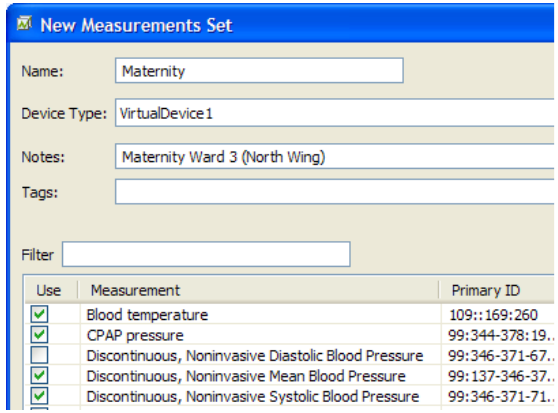


Healthcare Connectivity Pack: Medical Device Support

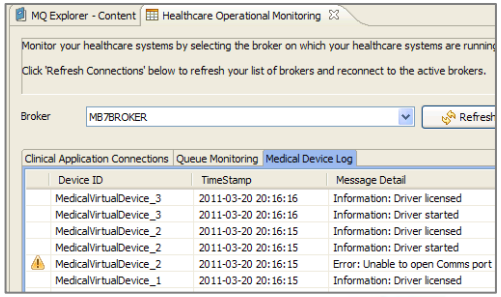


- **New Feature for Healthcare**
  - Healthcare Connectivity Pack is a priced feature of Message Broker
  - Typical scenarios include device integration, electronic forms, analytics…
  - Range of integration patterns to quickly address common scenarios
    - HL7 to HL7, HL7 to Reports, Medical Devices to EMR

- **Integrate medical devices with Message Broker**
  - MB now has the ability to read data from a range of medical devices
    - e.g. heart rate monitors, infusion pumps
  - Supports a wide set of device manufacturers
    - GE, Philips, Cardinal Health, Dräger and more



- **New Medical Device Input node**
  - Discrete, waveform and alarm readings fed directly into a flow
  - Measurement sets specify which medical readings are to be taken
  - Unified message tree structure for consistent analysis
  - Operationally configure devices
    - Device configuration is stored in a configurable service file
    - Sophisticated editor for adding and modifying devices



- **Operational monitoring of devices**
  - Medical devices emit status messages, e.g. connection state
  - Warnings when devices disconnect or experience problems
  - Information is written to the Event Log for a persistent record

Easy Data Modelling with DFDL

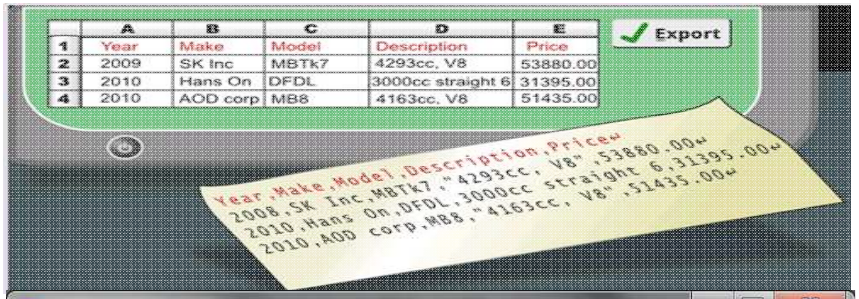
- **Simple & powerful standard for data modelling**
  - New standard for binary, text & industry data formats
    - Logical structure with physical annotations
    - e.g. endian, ASCII/EBCDIC, padding, justify…
  - Data Format Description Language (DFDL)
    - For use in IBM and non-IBM products
    - http://www.ogf.org/dfdl/

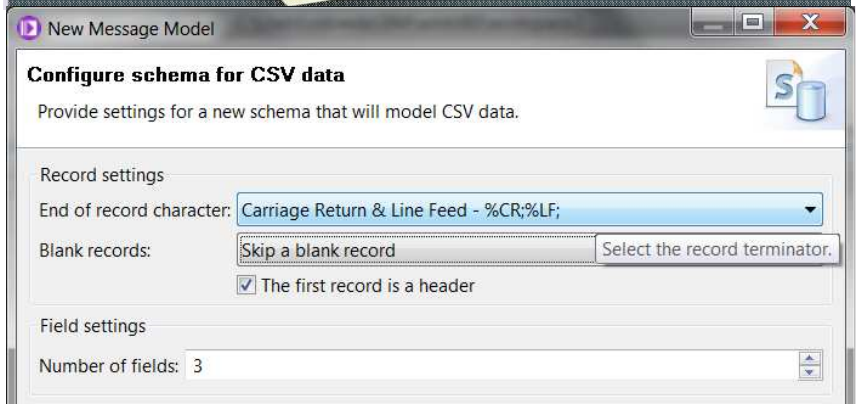
- **Support more features of the DFDL specification**
  - Fields with length prefixes (eg, PL/1, ISO8583)
  - Default values for missing structures when serializing

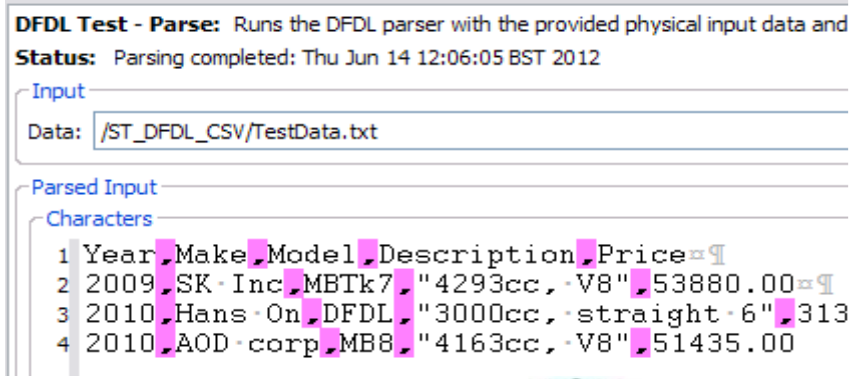
- **More ways to create DFDL models**
  - Import from C header files

- **Usability enhancements to DFDL editor**
  - More copy/paste & keyboard shortcuts
  - Multiple object selection

- **Improved performance**
  - Continued improvement when parsing & writing
  - Big gains for text numbers and packed decimals

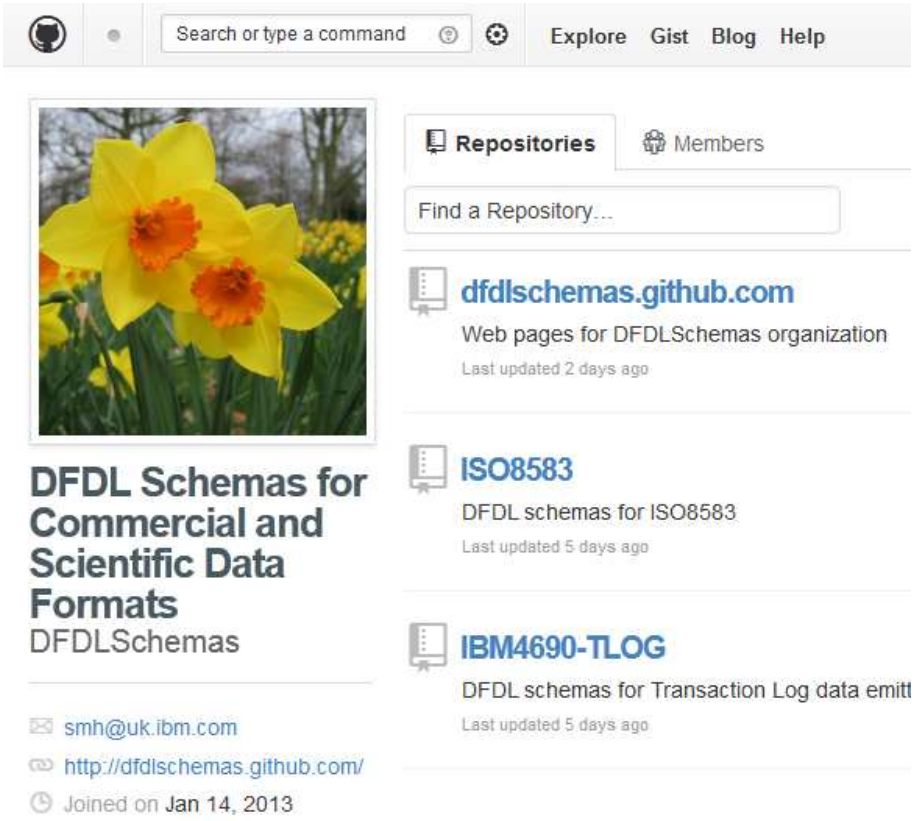


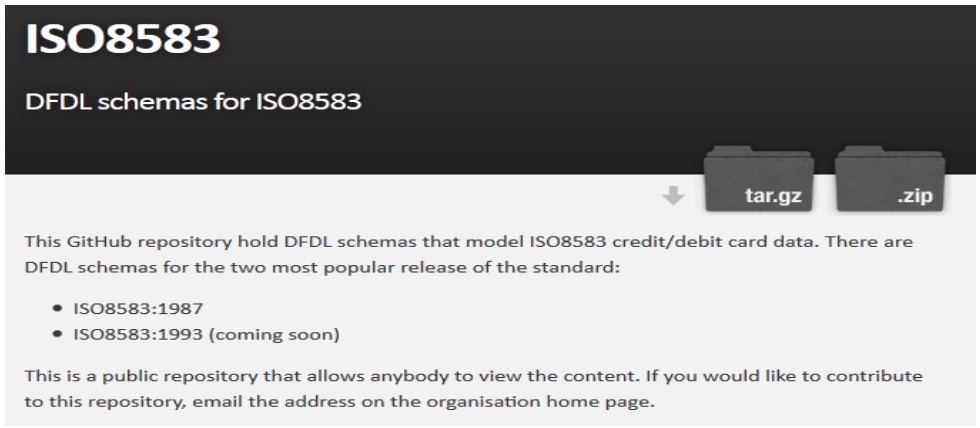




DFDL Web Community

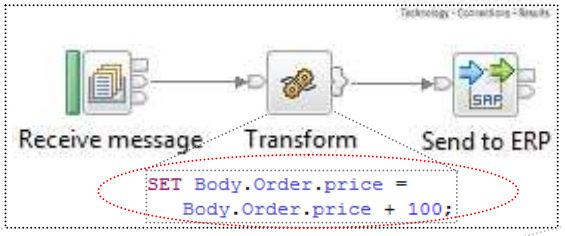
- **Free public repository for DFDL models**
  - https://github.com/DFDLSchemas
- **Hosted on the popular GitHub website**
  - Unlimited read-only access
- **Collaboration encouraged**
  - Write access by request
  - Use powerful Git VCS to interact
- **Evolving content**
  - ISO8583 schemas
  - TLOG schemas
  - Others to follow

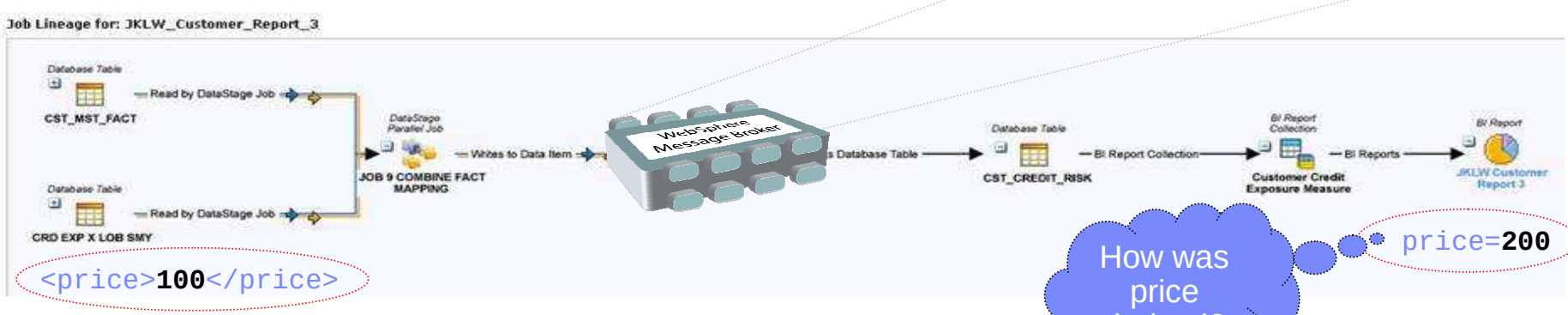




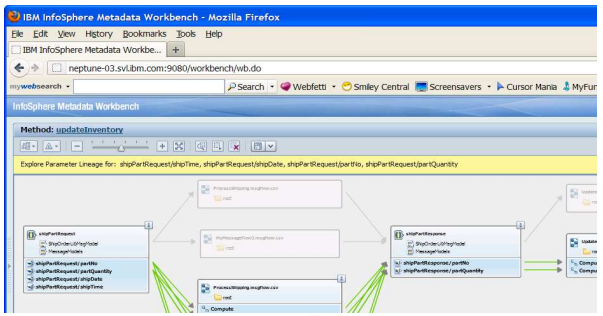
Understand the origin and lineage of data

- **InfoSphere Metadata Workbench provides cross-tool data analysis**
  - Trace the lineage of data back to its source
  - Understand what really happened and why?
  - Impact analysis: what happens if a particular field is changed
  - Explore the relationship of data between assets





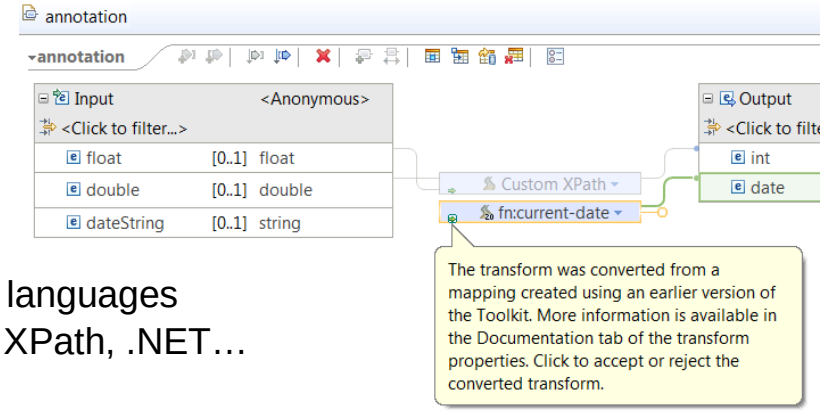
- **MB augments data analysis with identifiable integration assets**
  - Message flows, nodes and transformation statements
  - Select source assets for analysis e.g. ESQL
  - Tools derive line-by-line metadata model of selected source
  - Export collected analysis to Metadata Workbench



- **New MB tools for understanding the logic of MB transformations**
  - Design allows for future metadata model available through CMP
  - Allows third party and custom tools to analyze transformations

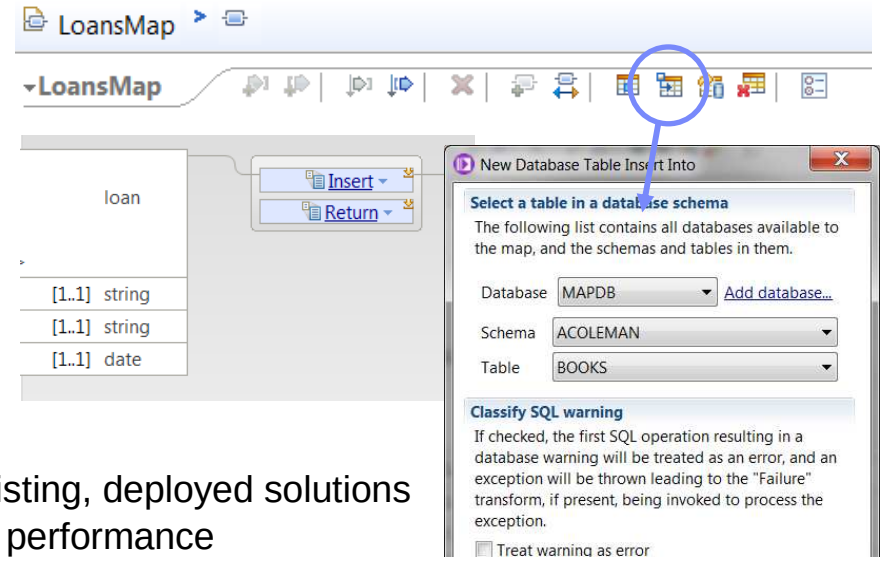
Graphical Transformations

- **IBM Graphical Data Mapper (GDM)**
  - Visually map and transform source to target data
    - Code-free, high performing & scalable
  - GDM designed for whole IBM product set
    - e.g. Full map exchange with MDM Server V10
    - Mapping Specification Language (MSL)
  - Complements and supports existing transformation languages
    - Call user defined transformation in Java, SQL, XPath, .NET…



- **Migration from pre-version 8 maps**
  - Existing `.mfmap` maps can now be converted to MSL
    - One-click operation to convert to V8 map
    - TODOs listed for additional configuration
  - MB7 maps continue to run until migrated/redeployed

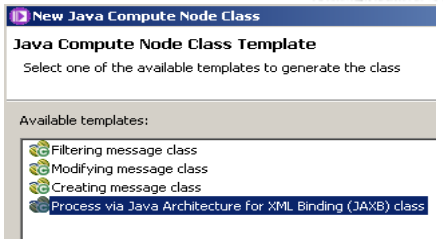
- **Modify databases directly from map**
  - Support for insert, update & delete operations
  - New operations on mapping toolbar
  - Simple dialog to graphically configure access

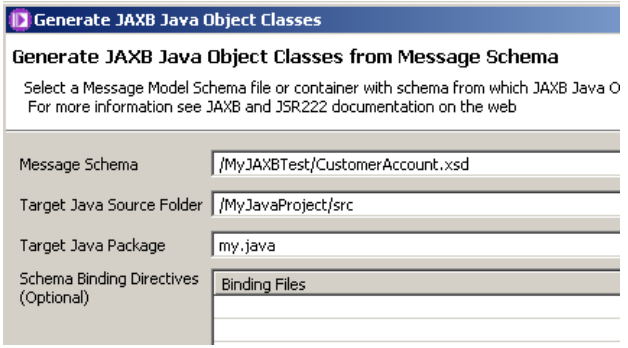


- **Improved performance and operations**
  - JIT compile means technology advances improves existing, deployed solutions
    - Source deploy + runtime compilation = enhanced performance
    - Further focus on performance makes mapper throughput higher than ever!
  - Operationally configure DB schema names used in maps; mapping configurable service

JAXB for Simplified Java Transformations

- **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
    - e.g. `xsd:int`, `xsd:string`, `xsd:dateTime`, `xsd:any`
  - Useful for writing code for use across multiple products, or migrating existing code into MB
  - Complements and extends existing `MBElement` class

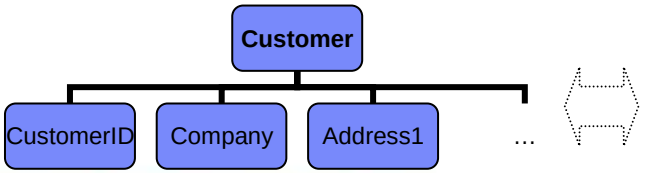


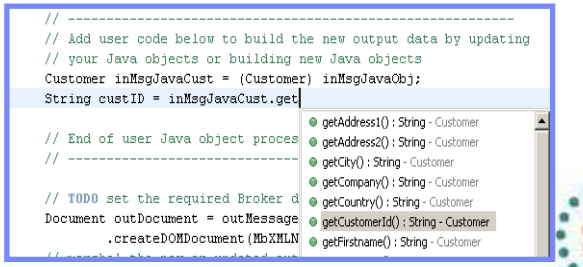


- **Comprehensive tooling support**
  - New wizard option when implementing a JavaCompute node
  - Full content assist available (e.g. Ctrl+Space)

- **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 `MbMessage`
    - 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

- **Comparable performance with native Java tree access**



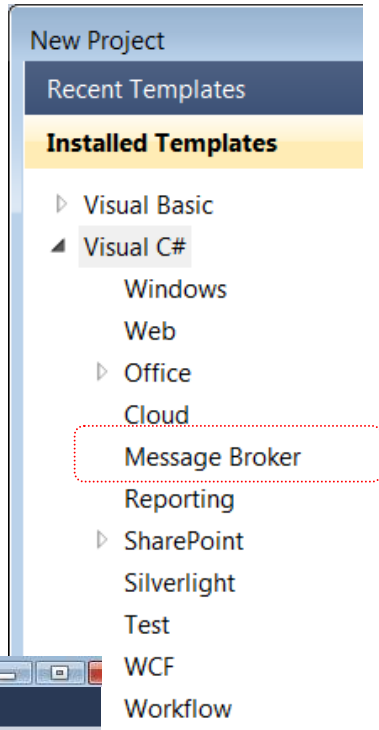


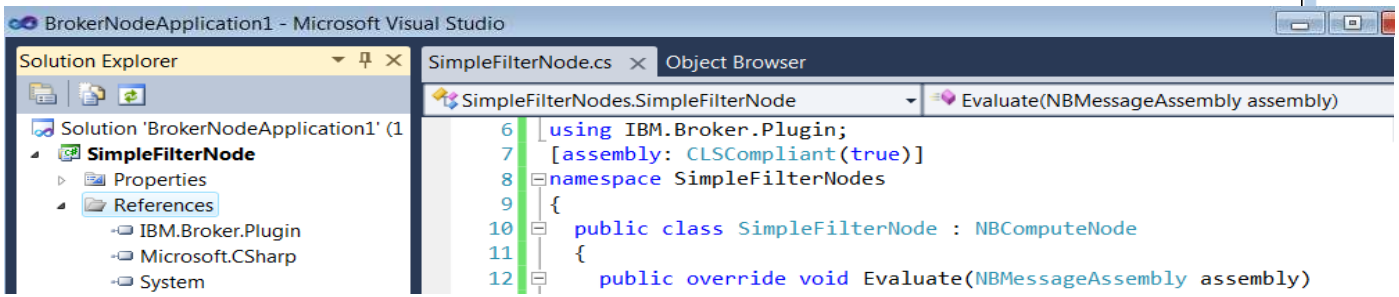
Deep and Intuitive Integration for .NET

- **New node on Windows platforms for native .NET program invocation**
  - Call .NET programs directly via CLR V4; includes app domains for isolation
  - C#, VB .NET (COM), JScript & F# programming available natively in MB
    - Extensive range of .NET data types supported for easy integration

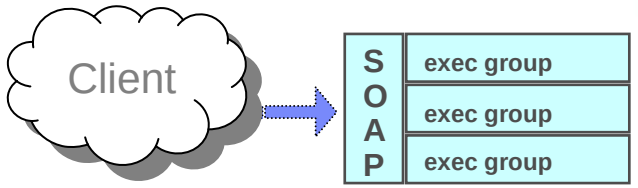
- **Common Usage Patterns**
  - Integrate best-of-breed Windows applications
    - Dynamics for CRM / ERP
    - SharePoint for collaboration
    - Excel for business data
    - Custom .NET applications and COM objects
  - Share data with non-MS environments without recoding your business logic
  - Speed up integration solution creation using Visual Studio

- **Deploy .NET assemblies inside BAR files**
  - Avoids the need to hand carry assemblies to destination machine
  - Fits in with your standard Broker deployment processes
  - Allows for easier promotion between environments
  - Complements “hot-swap” deployment option for development and test





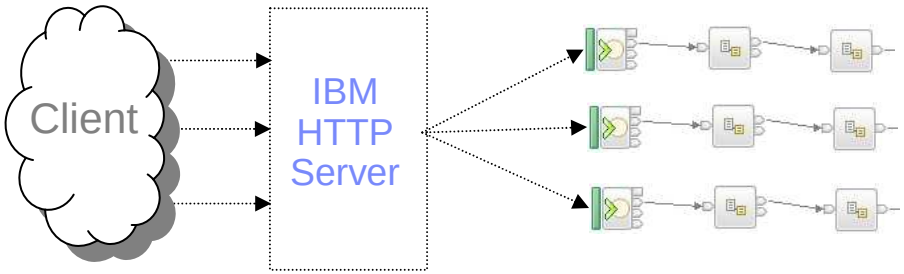
Web Services Enhancements

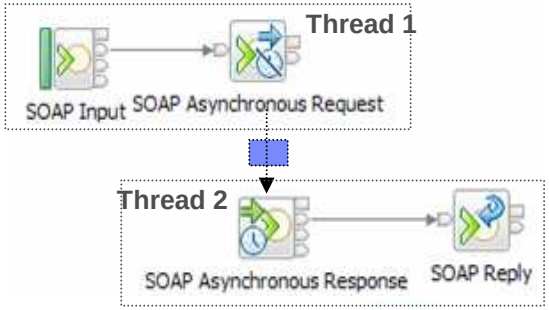


- **Single SOAP/HTTP Listener per broker**
  - Allows users to configure a single SOAP/HTTP for all execution groups
  - Augments existing single HTTP listener, and embedded SOAP/HTTP & HTTP listeners
  - Complements IHS, IIS, Proxy Servlet & IP sprayer technologies for flexible topology configurations

- **IBM HTTP Server Configuration**
  - Formal support for IHS as external servlet engine
  - Generate IHS configuration using MB Explorer
  - Both WAS plugin (.xml) and mod_proxy (.conf) formats supported

- **Asynchronous HTTP Requests & Responses**
  - Both SOAP & HTTP request nodes can request and handle response on different threads
    - Even without WS-Addressing on SOAP nodes
  - User Data can be automatically saved from request to response node to simplify processing
  - Particularly useful for slow running HTTP servers – reduces concurrent threads & memory demand





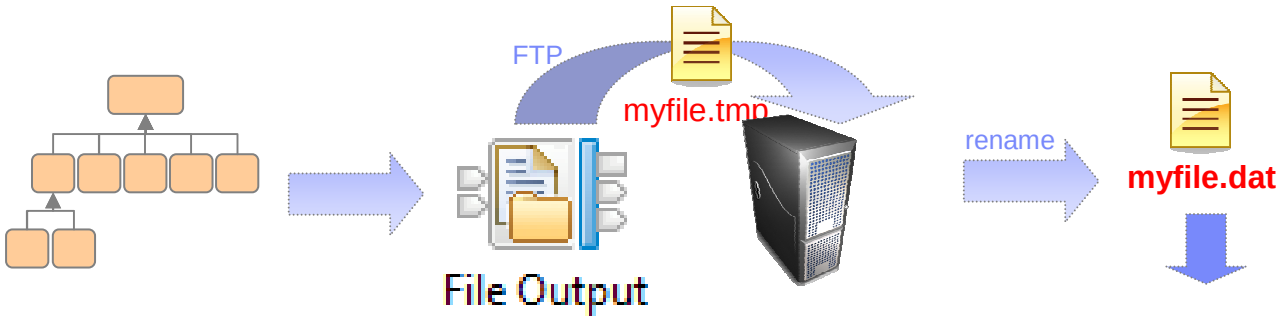
Extended File & Database Support

- **Dynamic FTP and SFTP Servers**
  - Allow server information (hostname, timeout etc.) to be configured on a per-message basis
  - Full set of override properties including server name, timeout etc.
  - Uses LocalEnvironment for flexible configuration options
  - Overrides any properties stored on node and configurable service

- **FTP and SFTP pre- and post- commands**
  - Provide a script of FTP and SFTP commands to invoke before and/or after a transfer has completed
  - E.g. quote, site, rename

```
quote site "lrecl=265 blksize=26500 recfm=fb cyl prim=50 sec=1-"
```

  - Typical scenarios
    - Configure z/OS data set block size before file transfer starts
    - Rename after file transfer to make visible to receiving application

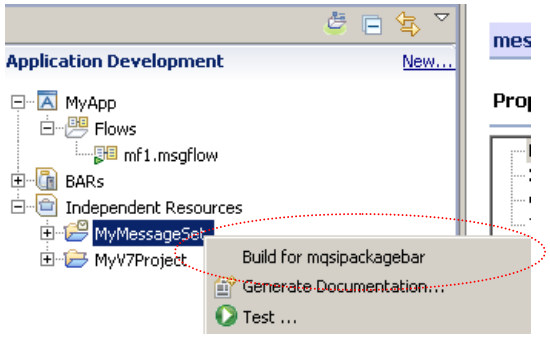


- **XA Transaction Support Now Optional for JDBC**
  - New jdbcProviderXASupport property for preventing Java XA class loading
  - For connecting to JDBC data sources that do not support XA

Dynamic Deployment of AD Artefacts

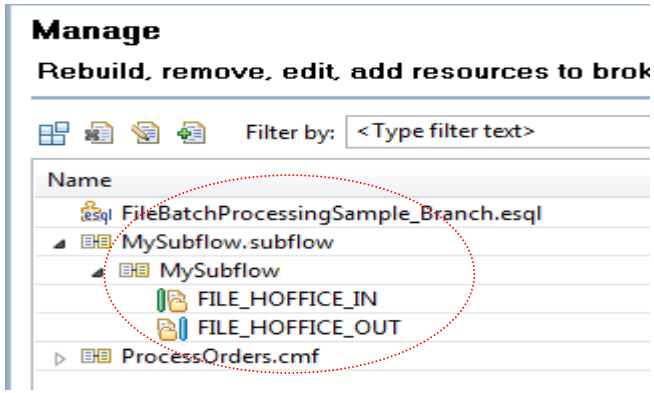
- **Simplified BAR creation from the command line**
  - New mqsipackagebar command focuses on BAR *packaging* rather than *compiling*
    - Ability to deploy WMB assets as source means that compile (mqsicreatebar) is no longer required
    - Specify applications, libraries and files (JARs etc.) to add to BAR
    - Toolkit option to compile message sets for mqsipackagebar
  - Easy to take advantage of; a minor modification to existing scripts, e.g.

```
1. cvs checkout ...
2. mqsipackagebar -a MY.BAR -o my.msgflow my.dfdl my.esql
3. mqsiapplybaroverride ...
4. mqsideploy ...
```



  - Complements MBExplorer / MB Toolkit / CMP deployment
  - Available on all broker platforms
  - Old mqsicreatebar command retained for compatibility

- **Override subflow properties in the BAR file**
  - Configure deployment descriptor overrides for subflows
  - Use common property values, or modify per subflow instance
  - Configurable at any time the subflow is deployed:
    - When deploying main message flows and applications
    - When deploying just the subflow
  - Compatible with all existing tools:
    - BAR file editor, mqsiapplybaroverride and CMP applications

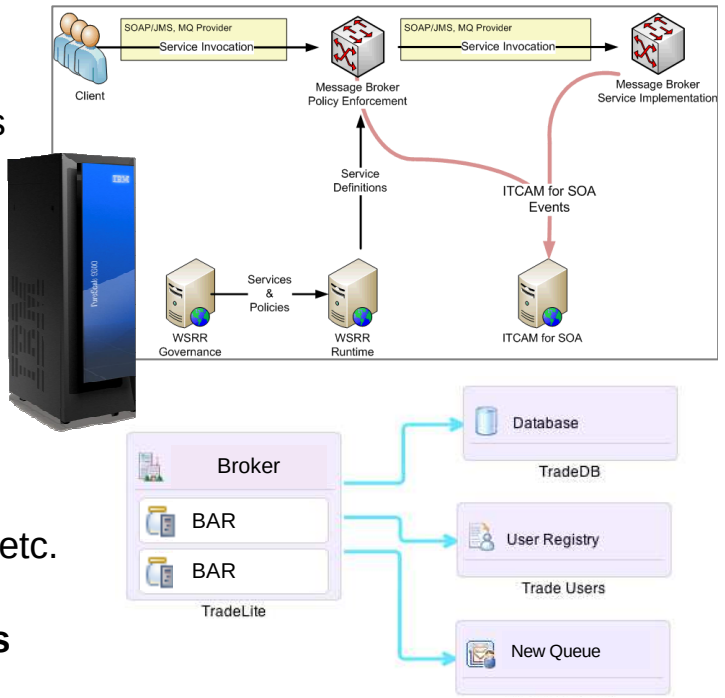


Simplified Cloud Provisioning through IBM PureSystems

- **IBM PureSystems are pre-optimized, ready-to-go systems**
  - Allows you to quickly provision diverse combinations of products
    - e.g. WAS, MQ, MB, DB2, WSRR…
    - Not limited to provided IBM images

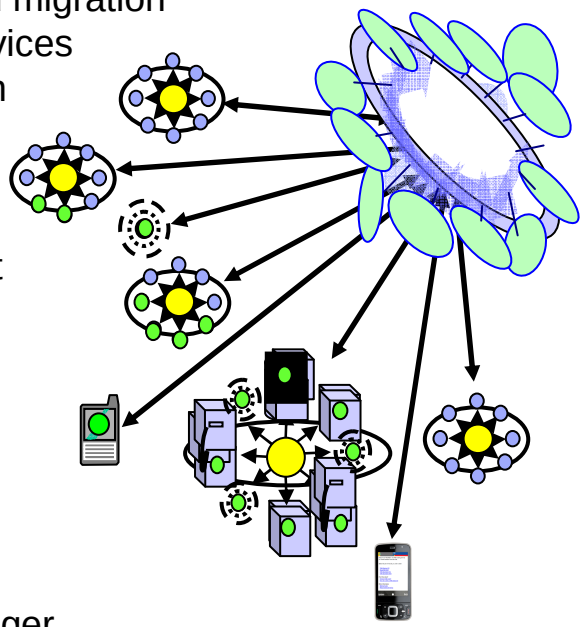
- **MB provides System Patterns for PureSystems**
  - Pre-built System Pattern based on RHEL 6.2
    - Configure MB virtual image and deploy
  - SOA Policy System Pattern
    - Route between JMS applications based on WSRR policy
    - Fully configured scenario including message flows, policies etc.

- **Multiple options for provisioning MB in virtualized environments**
  - IBM Workload Deployer images
    - Virtual image software & hardware packages
    - RHEL 6.2 for VMware ESX x86-64 & IWD images
    - AIX 6.1 TL7 **`mksysb`** & IWD images
  - WebSphere Message Broker for the IBM SmartCloud
    - Pay for the capacity required (hardware, OS, services)
      - Copper, Bronze, Silver, Gold, Platinum
    - "Bring your own license"
      - Use a MB v8 license (express, standard, advanced)



Support for MQ V7.1 and V7.5

- **MQ V7.1 and V7.5 contain significant new features**
  - Multi-version and relocatable installation for easier install, testing, and migration
  - Telemetry function for lightweight connectivity to mobile and other devices
  - Distribute across multiple end-points with integrated multicast function



- **MB now supports MQ V7.1 and V7.5**
  - All components including broker runtime, MB Explorer and MB Toolkit
  - Latest fixpack required (V7.1.0.1)
  - MQ V7.0.1 continues to be supported
    - Same minimum prerequisite as MB7 simplifies migration
  - MB 7 will also support MQ 7.1/7.5

- **Both primary and secondary MQ installations supported**
  - Automatic selection of MQ installation based on broker's queue manager
    - Active environment at time of *mqsicreatebroker* infers version of new queue manager
    - If queue manager already created, the version is already selected
  - Multiple MB Explorer instances plug in to multiple MQ instances
    - Each Explorer shows only brokers and queue managers associated with the same install
  - New queue manager channels are now secured by default; update definitions accordingly

Other Features Our Users Requested

- **Execution group and broker specific shared-classes**
  - Allows each broker or execution group to specify a different set of Java shared-classes
  - Takes precedence over installation wide shared-classes

- **Alternative classloader for Java when calling ESQL**
  - Specify an alternative Java classloader when invoking external Java classes from ESQL
  - Invoke via qualification on ESQL, override operationally via configurable service definition

- **New delete() method on JavaCompute, Java and C plugin interfaces**
  - Deletes elements in the message tree
  - Allows performance improvements when manipulating large messages

- **ISO 8583 DFDL Sample**
  - Widely used binary standard for transmission of ATM and credit card transactions
  - *New* sample including ISO 8583:1987 DFDL schema plus message flows to transform to/from XML

- **TLOG Processor**
  - Updated to support the latest release of IBM SurePOS ACE (V7R3)
  - New transaction strings added to ACE MRM message set
  - XSLTs replaced with latest versions

Message Broker Summary

- **Message Broker Version 8.0.0.1**
  - MB 8.0.0.1 is the first significant update since V8 GA
  - Builds on the continued success of V7 and V8 major engineering releases
  - Content heavily influenced by user requirements, participation and feedback
  - Continuous rollout throughout 2012 and beyond

- **Diverse Connectivity Requirements**
  - Simple & Productive to make connectivity easy and powerful
  - Universal & Independent to connect everything you need in the way you want to manage it
  - Industry Specific & Relevant to help solve business problems
  - Managed & Dynamic to create flexible solutions which can be changed with control
  - High Performing & Scalable to maximize hardware and grow with you

- **Message Broker is a key IBM connectivity technology**
  - Unparalleled range of connectivity options and capabilities
  - Supports users' range of experience & needs
  - Industry leading performance in a broad range of scenarios

This was session 12604 - The rest of the week ……

	Monday	Tuesday	Wednesday	Thursday	Friday	
08:00					Are you running too many queue managers or brokers?	
09:30		What's New in WebSphere Message Broker			Diagnosing Problems for MQ	**CICS and WMQ - The Resurrection of Useful**
11:00		Extending IBM WebSphere MQ and WebSphere Message Broker to the Cloud	WMQ - Introduction to Dump Reading and SMF Analysis - Hands-on Lab	BIG Data Sharing with the cloud - WebSphere eXtreme Scale and WebSphere Message Broker integration	Getting the best availability from MQ on z/OS by using Shared Queues	
12:15						
01:30	Introduction to MQ	MQ on z/OS – Vivisection	Migration and maintenance, the necessary evil	The Dark Side of Monitoring MQ - SMF 115 and 116 Record Reading and Interpretation		
03:00	First Steps With WebSphere Message Broker: Application Integration for the Messy	BIG Connectivity with WebSphere MQ and WebSphere Message Broker	WebSphere MQ CHINIT Internals	Using IBM WebSphere Application Server and IBM WebSphere MQ Together		
04:30	WebSphere MQ application design, the good, the bad and the ugly	What's New in the WebSphere MQ Product Family	MQ & DB2 – MQ Verbs in DB2 & Q-Replication	WebSphere MQ Channel Authentication Records		
06:00			Clustering - The Easier Way to Connect Your Queue Managers			