

RED HAT
SUMMIT

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JBoss Fuse to JBoss Data Virtualization Integration

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SUMMIT BY DAY PARTY BY NIGHT

JOIN OUR **JBOSS,**
OPENSIFT,
AND **MOBILE** TEAMS ON WED. JUNE 24
FOR A NIGHT OF GAMES, DANCING,
AND OPEN CONTAINERS

Visit the Red Hat booth
in Hall D for location
and invitation.

An invitation doesn't guarantee entrance. Admission determined by city of Boston fire code.

Agenda

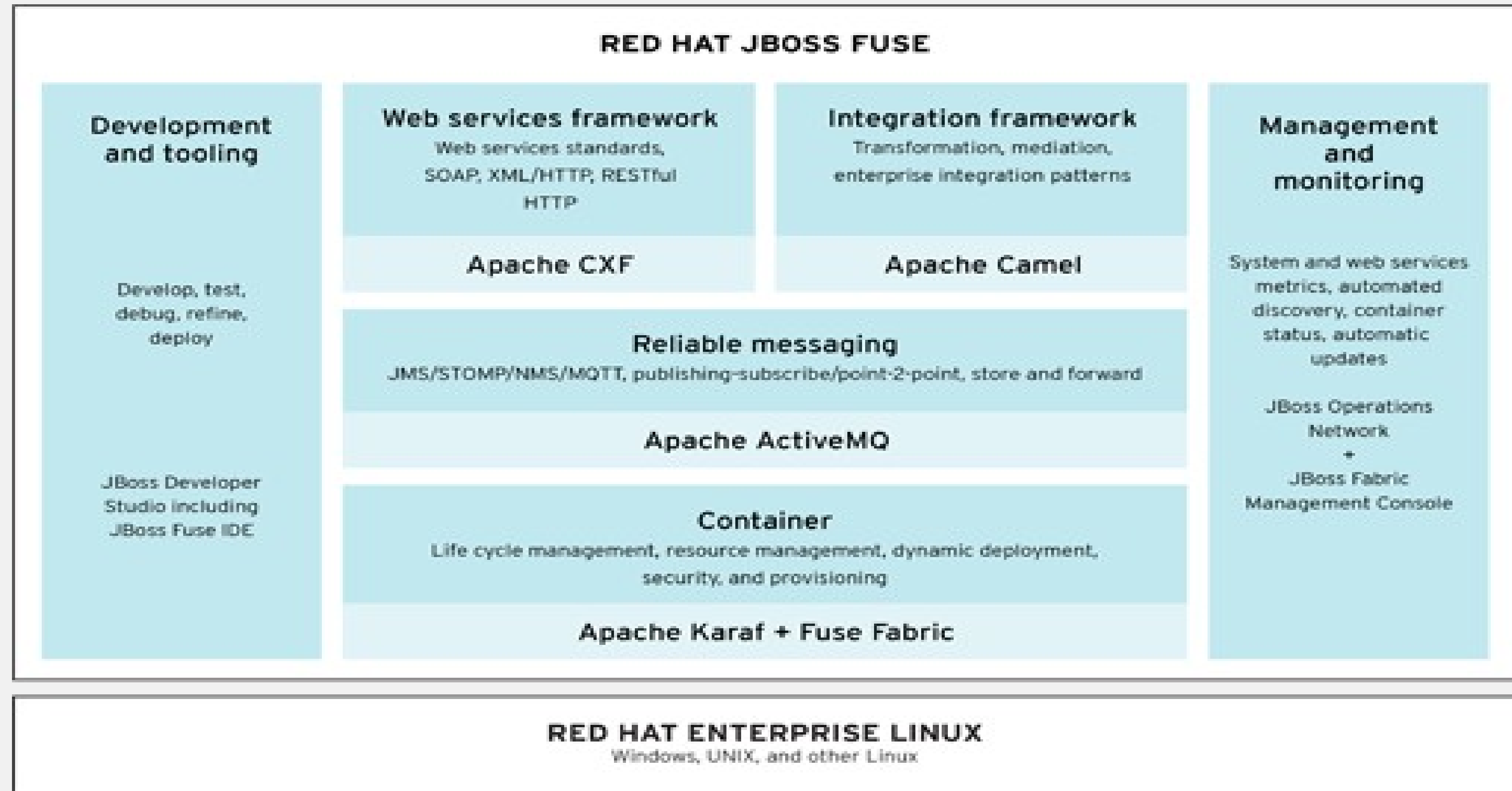
- Introductions
- JBoss Fuse Overview
- JBoss Data Virtualization Overview
- Camel components to integrate JBoss Fuse with JBoss Data Virtualization
- Demo Time

JBoss Fuse Overview

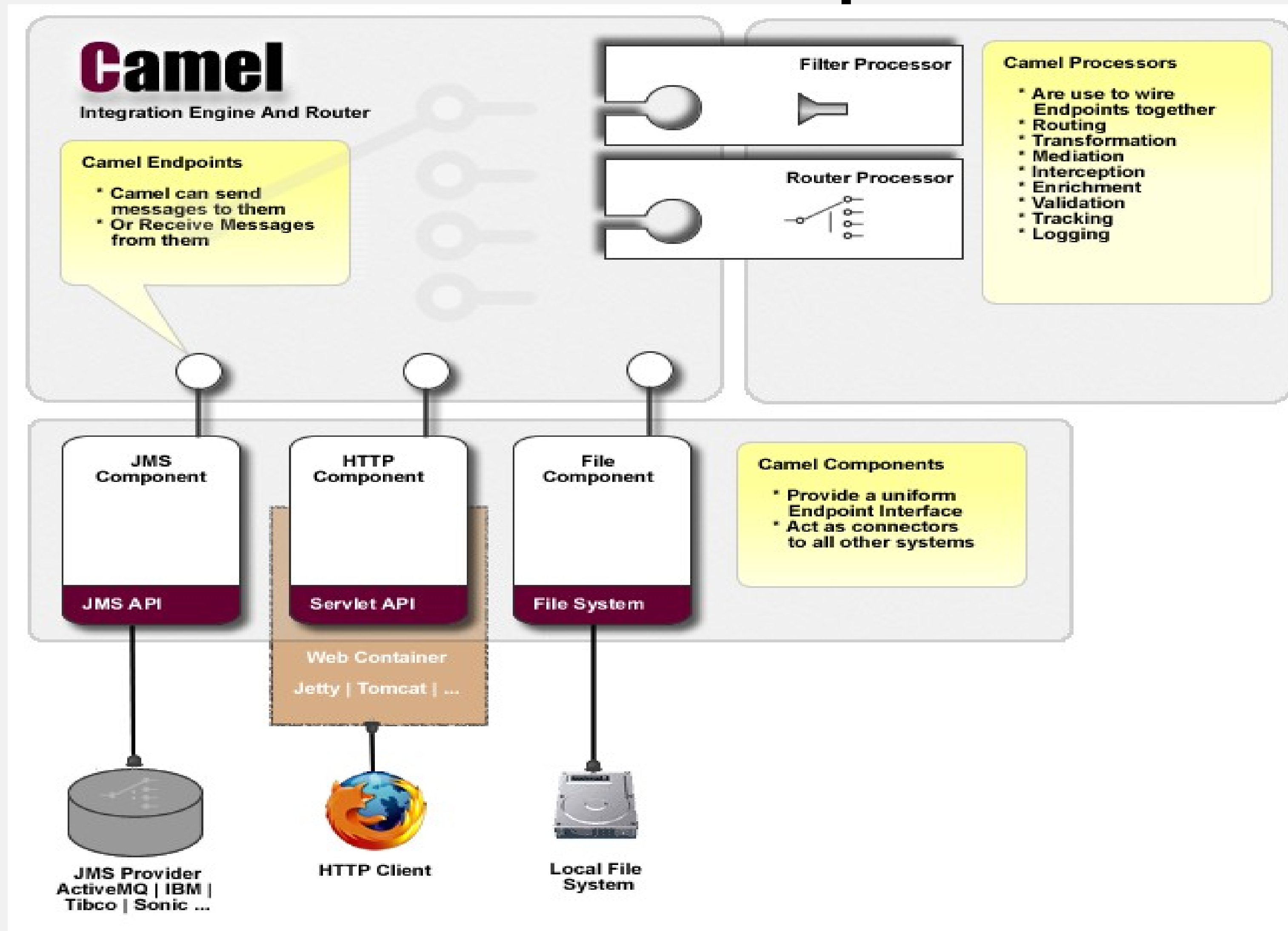
JBoss Fuse Overview

- Apache project originally created by Fusesource
- Karaf OSGi container
- Camel mediation framework for connectivity and transformation
- Active MQ messaging
- Apache CXF services
- Provides support for over 150 protocols for integration through Camel Components
- Provides EIP via Camel Processors to transform and route messages based on the Hohpe & Wolfe 'Enterprise Integration Patterns'
- De Facto standard for enterprise integration

JBoss Fuse Architecture



JBoss Fuse – Includes Apache Camel

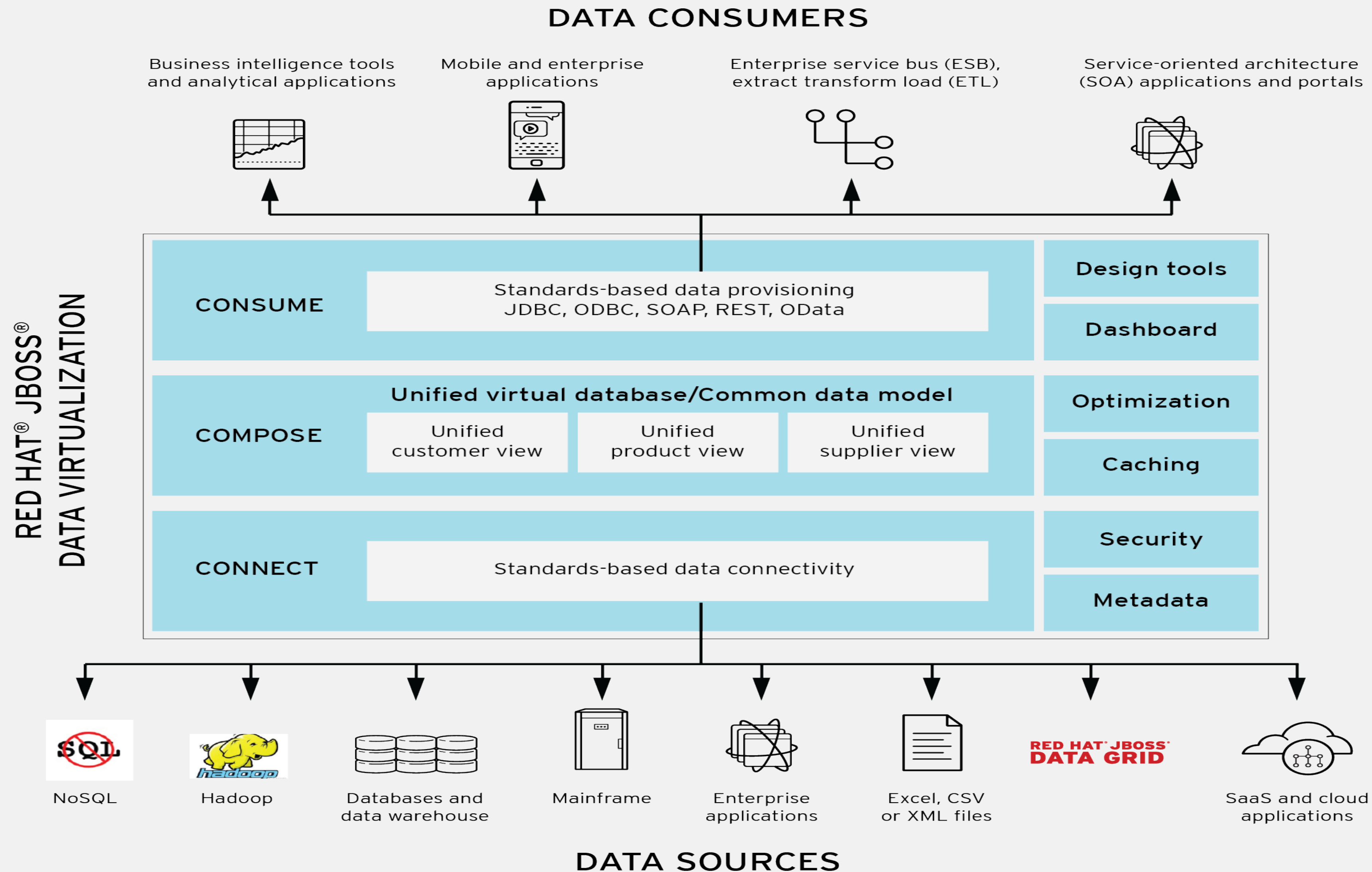


JBoss Data Virtualization Overview

JBoss Data Virtualization Overview

- Enterprise implementation of the Teiid project
- Allows data virtualization of large set of data sources
- RDBMS via JDBC & ODBC
- Files, Web Services, RESTful services, NoSQL, Data Grid, SAP, and others
- Client exposure via JDBC, ODBC, SOAP, REST
- Preserves 'in place' data via native queries to underlying datasources
- Data modeling through Teiid Designer Eclipse plugin
- RBAC to virtual models that expose controlled slices of physical data
- Caching of result sets, code tables using Infinispan
- Caching of views as Materialized Views through single click configuration in Teiid Designer

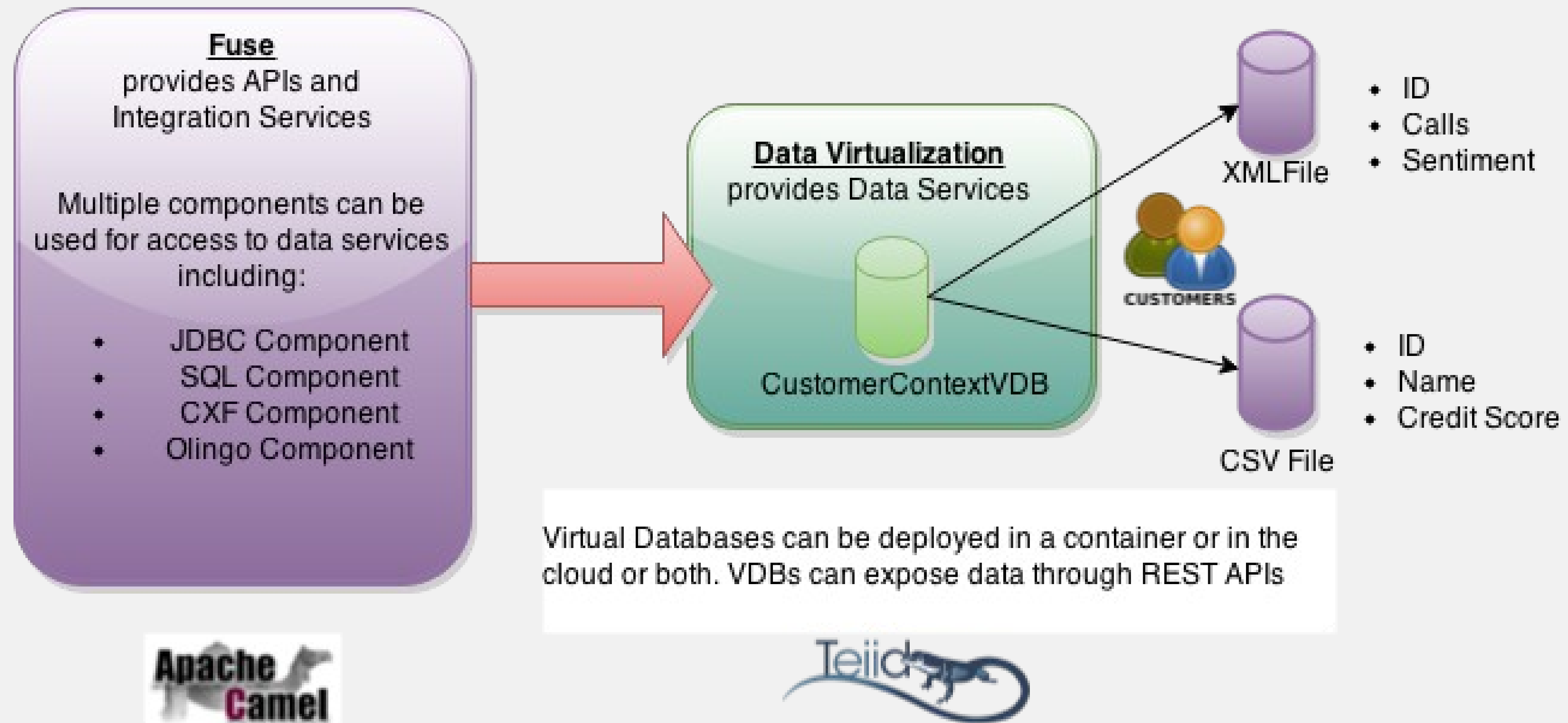
JBoss Data Virtualization Architecture



JB0041

Camel Components to Integrate Fuse with JDV

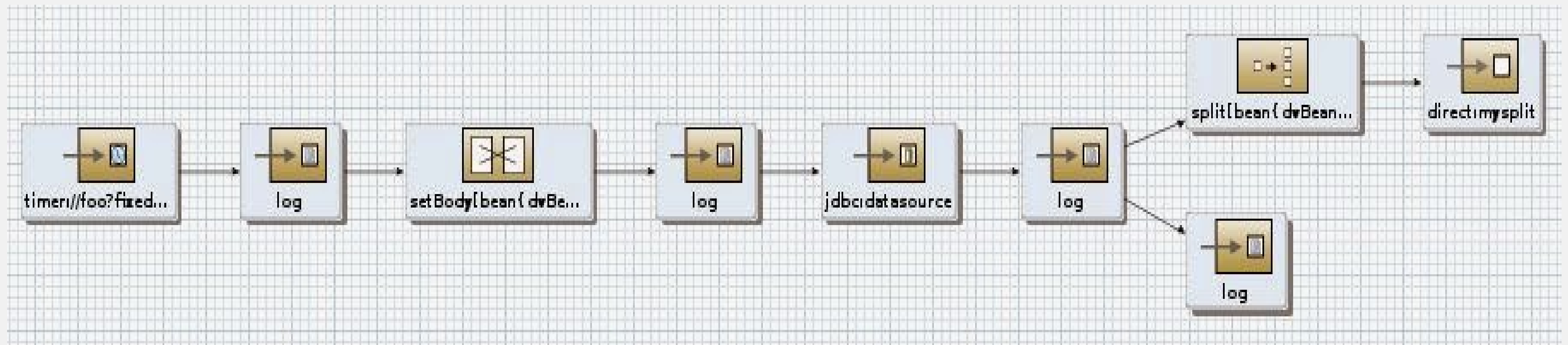
Fuse-Data Virtualization Architecture



Camel JDBC Component

- Allows JDBC access to a database
- SQL queries and operations are passed in the message body
- Producer endpoints only
- URI format → jdbc:datasourcename[?options]
- Options to configure the query
- Results returned as `ArrayList<HashMap<String, Object>>` in OUT body of message
- List entries for each row returned
- Map String=ColumnName, Object=ColumnValue

Camel JDBC Route



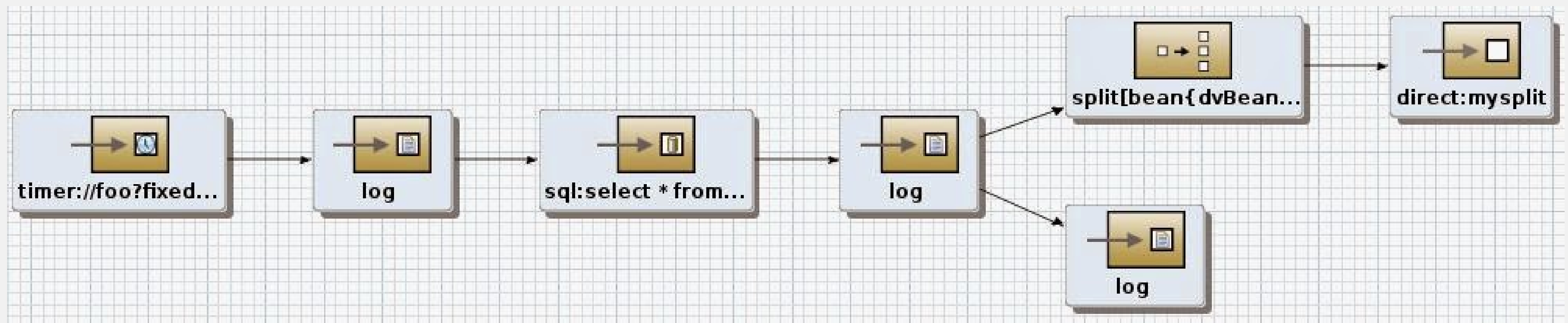
Camel SQL Component

- Also allows JDBC access to databases
- Uses spring-jdbc 'under the covers'
- Query is defined in the URI to the endpoint
- URI → `sql:select * from table where id=:#myId order by name[?options]`
- Named parameters in message body passed as `java.util.Map` in message body or in as named parameters in the message header
- Query results returned as `List<Map<String, Object>>` in the message body
- Update operation return Integer in the message body for the count of rows affect

- Easy, peasy

```
from("jms:order.inbox")  
    .to("sql:select order_seq.nextval from dual?  
outputHeader=OrderId&outputType=SelectOne")  
    .to("jms:order.booking");
```

Camel SQL Route



Camel Olingo2 Component

- Available in Camel 2.14
- The Olingo2 component utilizes Apache Olingo version 2.0 API's to interact with OData 2.0 and 3.0 component service
- URI format - `olingo2://endpoint/<resource-path>?[options]`
- Will be part of JBoss Fuse 6.2
- Easy integration with Data Virtualization

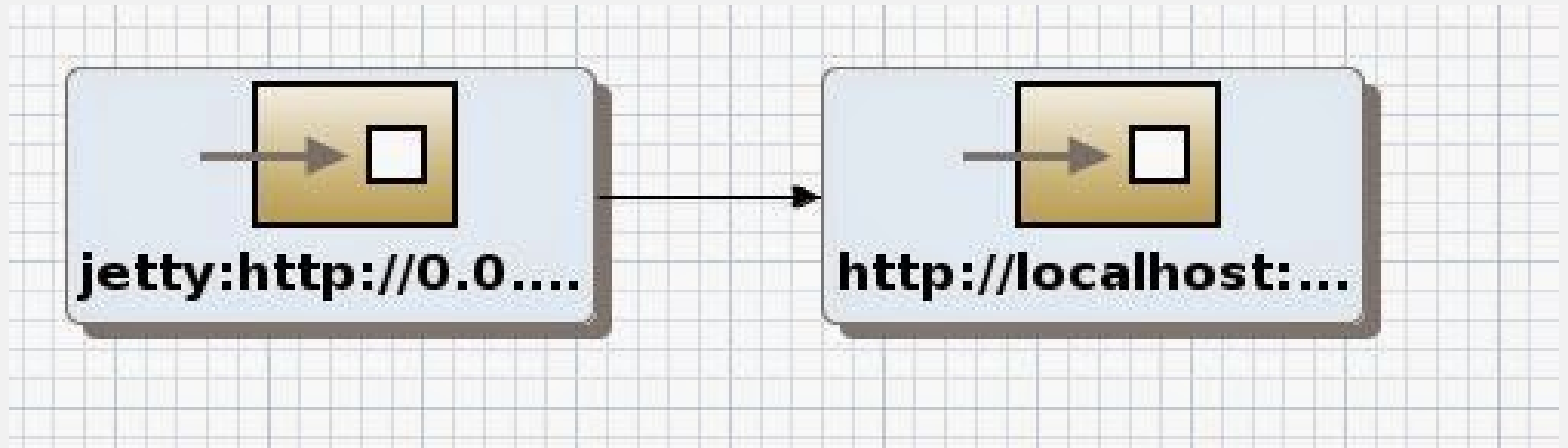
Camel Olingo2 Route



Camel Jetty Component

- The jetty component provides HTTP-based endpoints for consuming and producing HTTP requests
- the Jetty component behaves as a simple Web server, or
- Jetty can also be used as a http client, or Camel producer
- URI format – `jetty:http://hostname[:port][/resourceUri][?options]`

Camel Jetty Route



Fuse – Data Virtualization Integration

Demo Time

Q&A + Discussion

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