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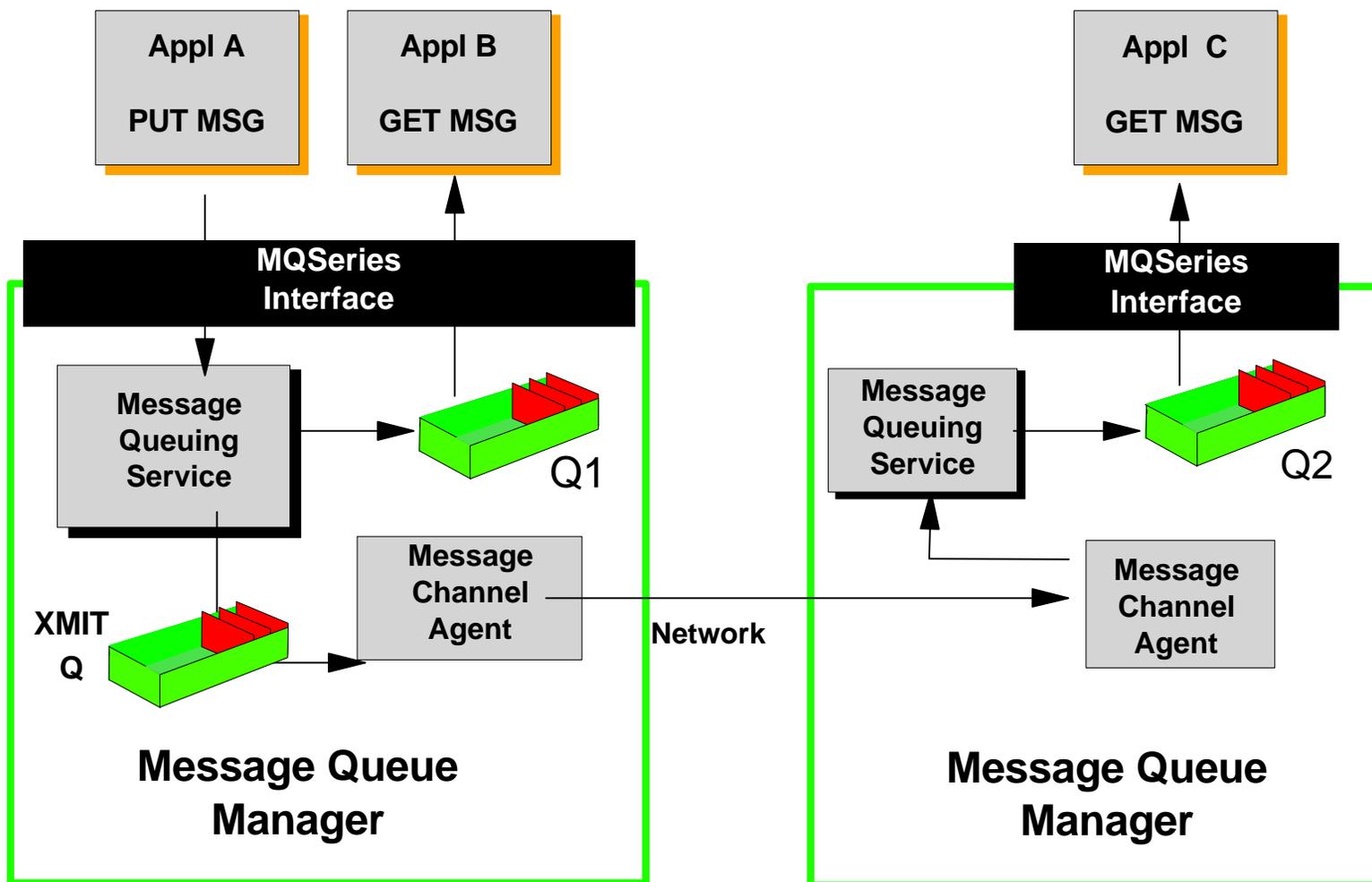
# MQSeries Integrator Version 2 Technical Overview

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# How MQSeries Works



Assured, once only delivery

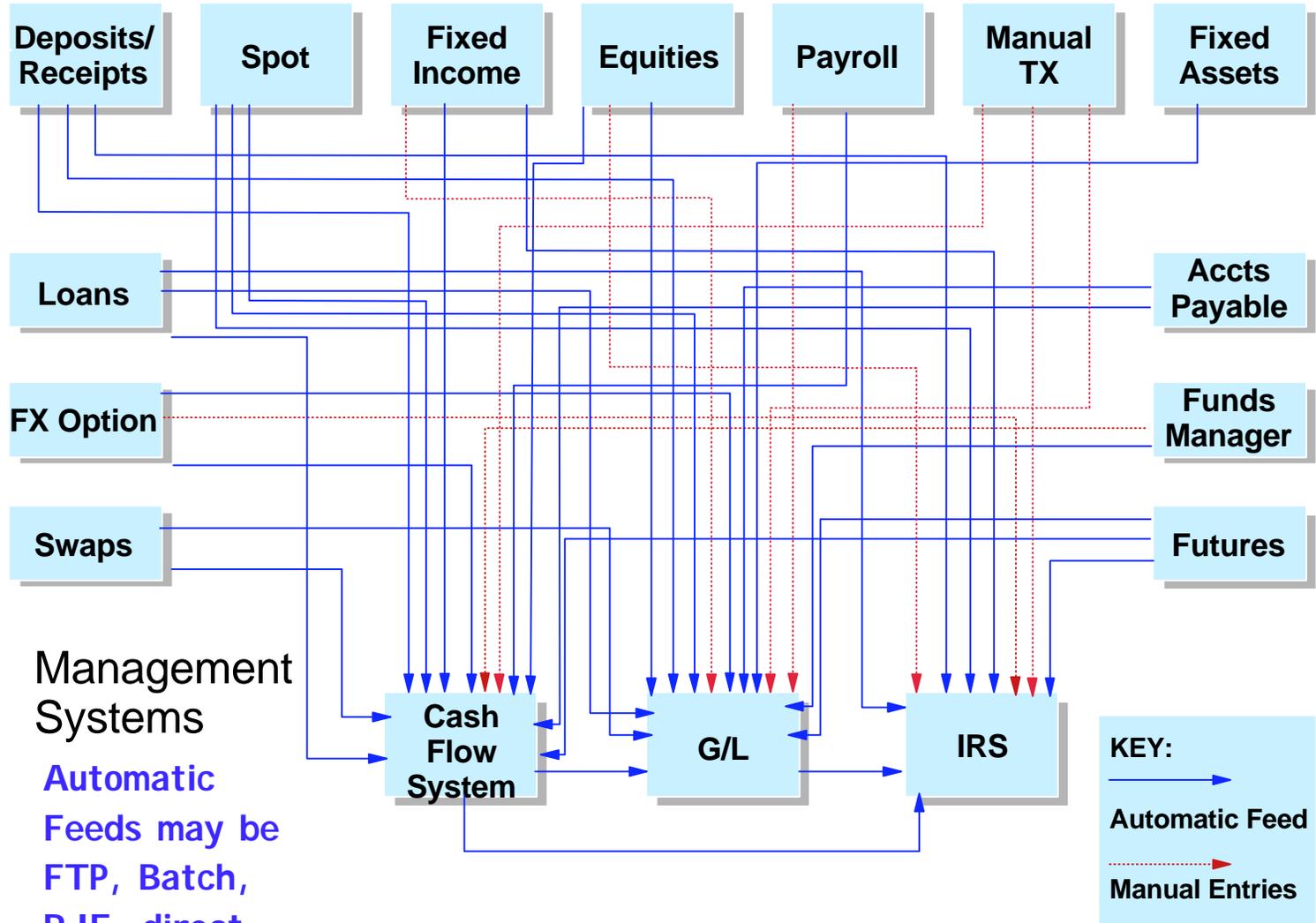
# Application integration: The Challenge



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## Transaction Systems



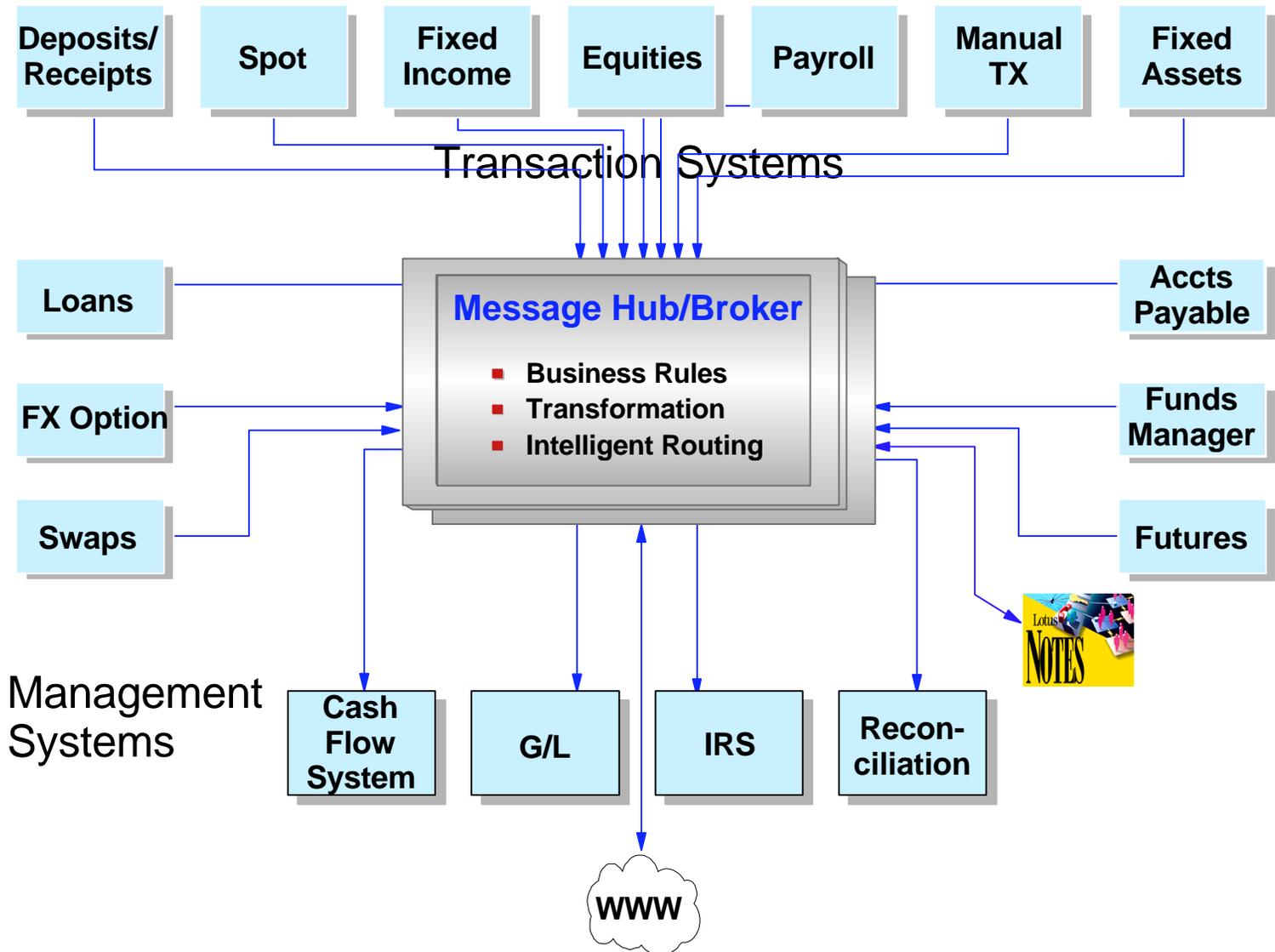
Management Systems

Automatic Feeds may be FTP, Batch, RJE, direct, realtime

# MQSeries Integration Hub: Making application integration easier



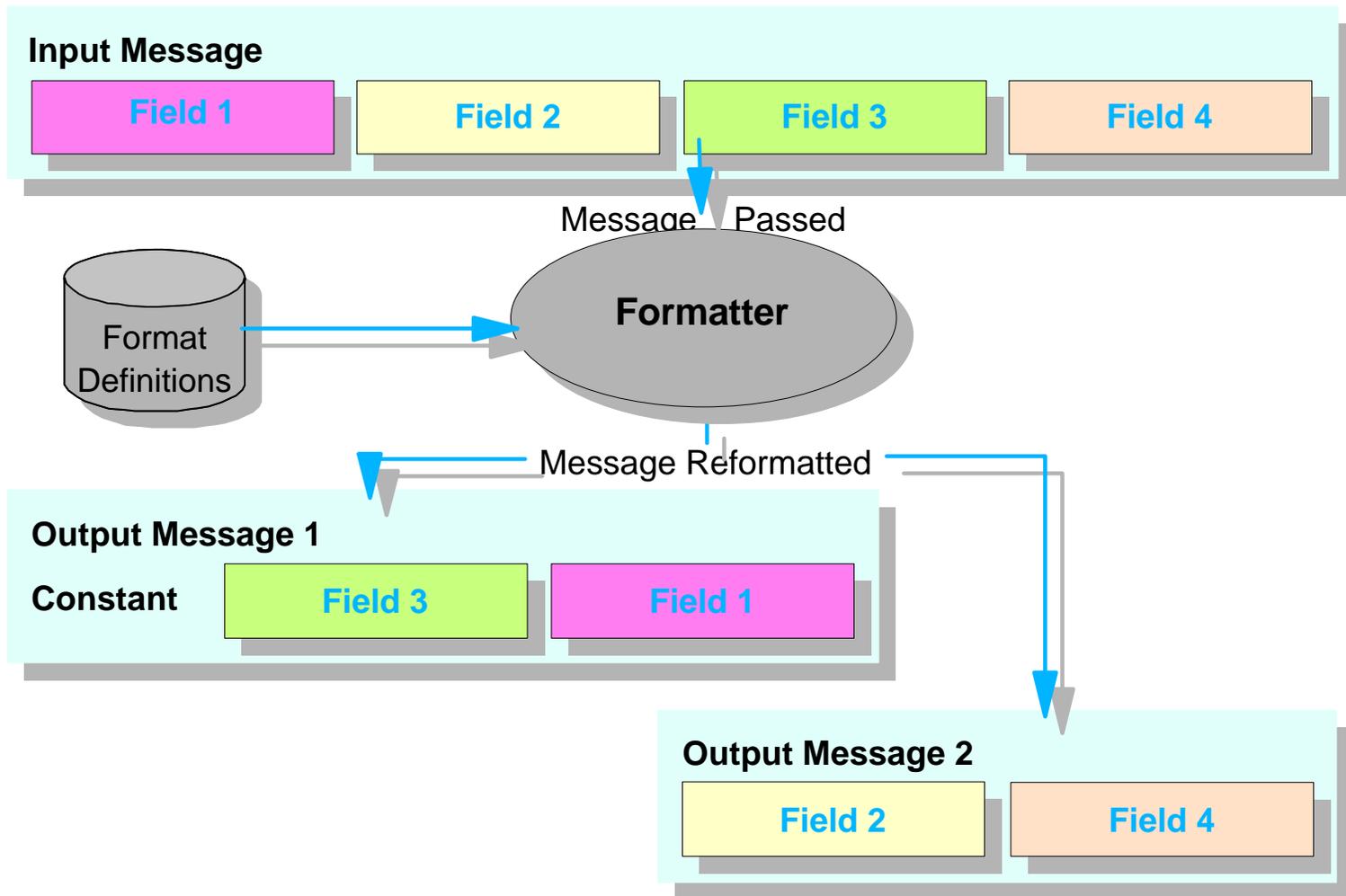
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# MQSeries Integrator - Formatting/Routing



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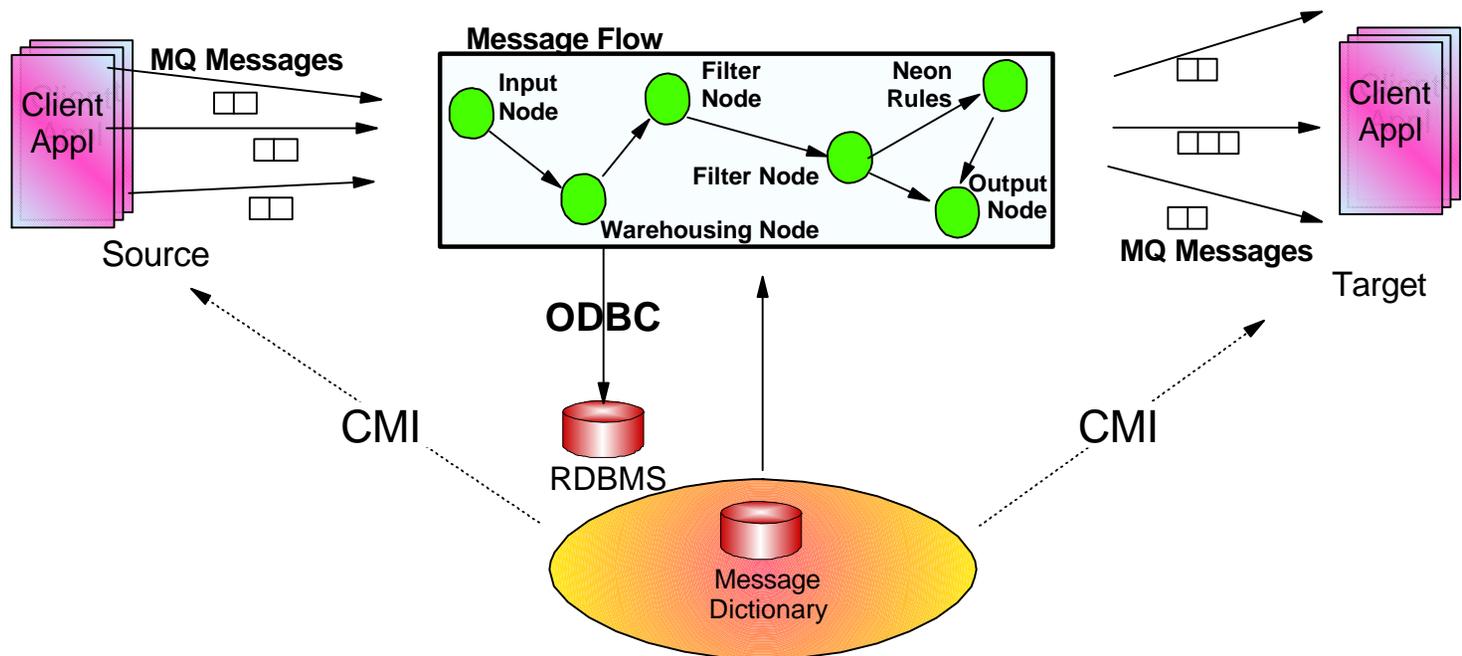
# MQSI v2.0 Architecture



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## ■ Process nodes include:

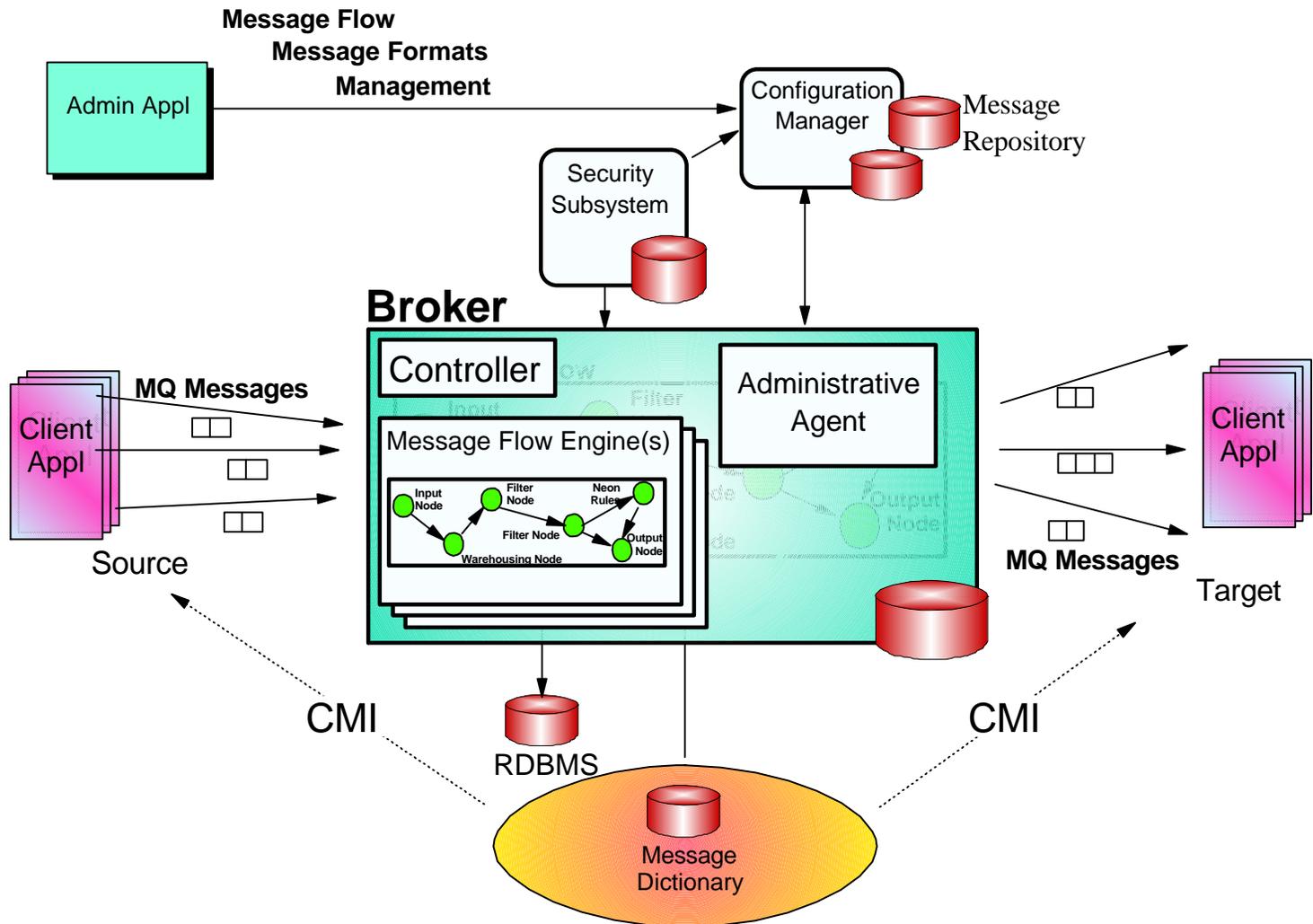
- ▶ MQSI V1 function
- ▶ Message transformation
- ▶ Message filtering
- ▶ Database operations
- ▶ Message routing
- ▶ Topic and/or content based publish / subscribe
- ▶ Custom (user or vendor) operations



# MQSI v2.0 Architecture



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# MQSeries Base Publish/Subscribe

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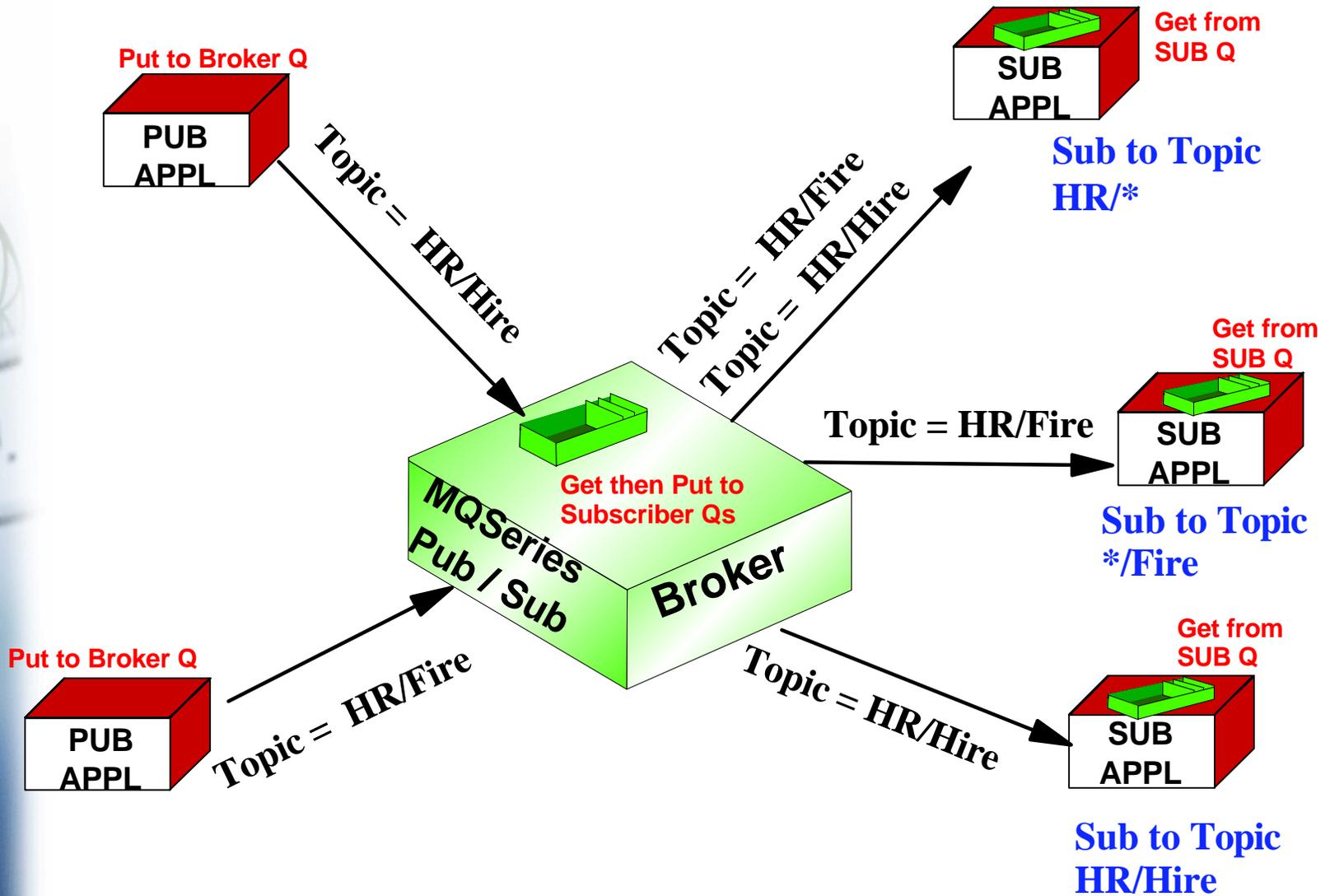


- **Combines publish/subscribe with existing messaging models**
  - Flexible, independent coupling of applications
  - Combined model enables many flows beyond standard pub/sub model (push/pull/query/advertise/..)
  - Application can mix publish/subscribe with other messaging styles to create enhanced business event processing
- **Range of quality of service provided**
  - as per existing MQSeries, from transactional assured-delivery to lightweight non-persistent
  - applies to publications and subscription requests
- **Scaleable multi-broker architecture**
- **Message compatibility with rules and transformation system**
  - Headers consistent with MQSI V1 for publications and messages
  - Use of MQSI V1 to create publications from message content
- **Dynamic changes**
  - Subscriptions re/deregistered by message to broker

# Publish / Subscribe



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# MQSeries Integrator V2 Publish/Subscribe

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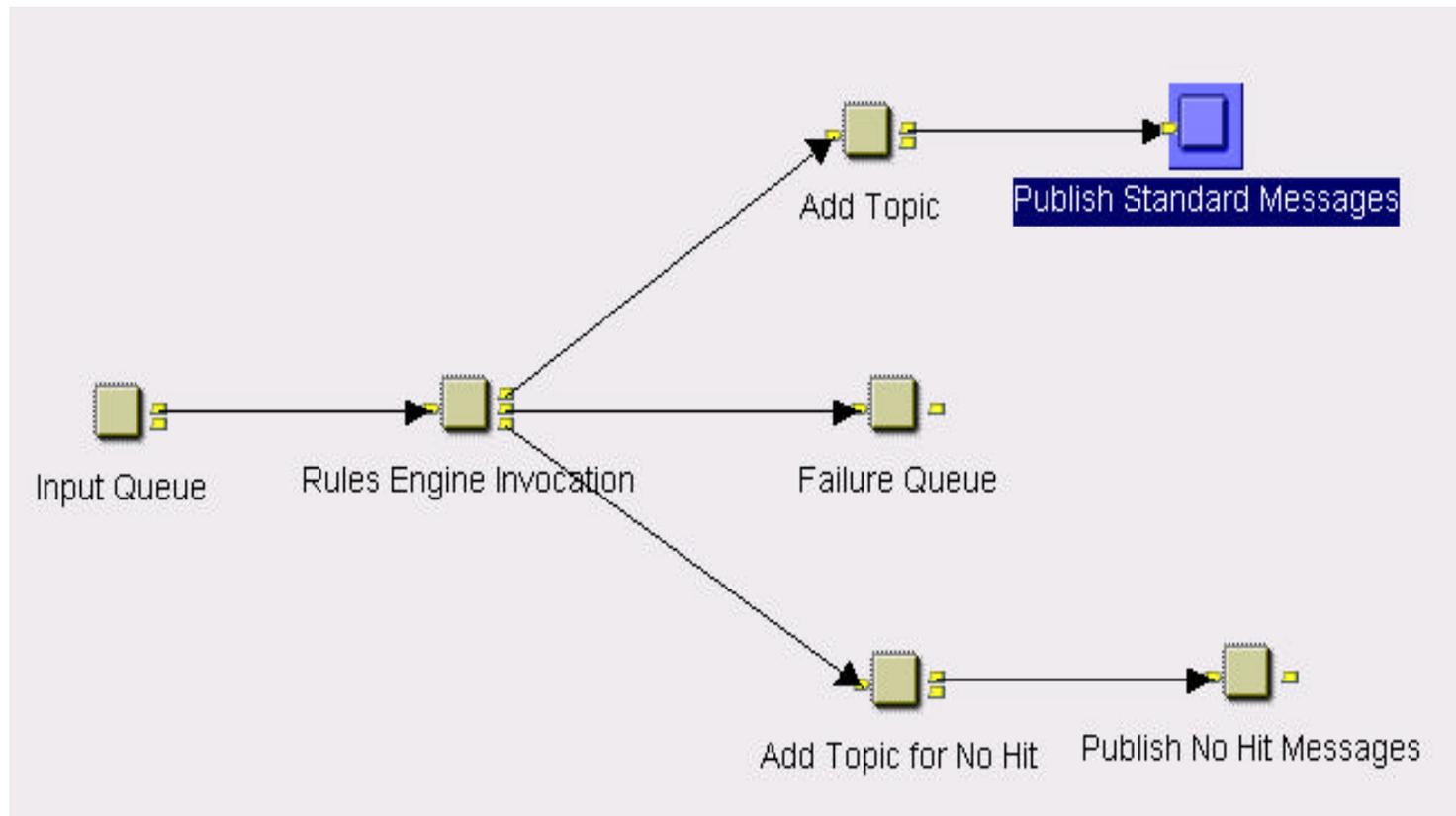


- **Topic and Content Based Routing**
  - ▶ Publication based on Topic
  - ▶ Subscription by Topic and using SQL driven Content Filtering
  - ▶ Application can mix publish/subscribe with other messaging styles to create enhanced business event processing
- **Security based on Topics (base pub/sub uses queues)**
  - ▶ Optional
  - ▶ Managed centrally by an administrator
  - ▶ Controls who can publish or subscribe to a topic
  - ▶ Granularity to individual branches in topic tree
- **Collectives of Brokers - as well as Hierarchies**
  - ▶ Removes single point of failure
- **Subscription points**
  - ▶ Multiple formats for a subscription
  - ▶ Format chosen by the subscriber
- **Tight Integration with the Message Flow**
  - ▶ Messages may be transformed or warehoused as part of the flow

# MQSI V2 Pub / Sub Integration



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# Security

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- **Utilizes Operating System definitions of Principals and Groups**
- **Access control:**
  - ▶ Message flow - controlled by access to MQ queue
  - ▶ Publish / Subscribe - controlled by ACLs on Topic tree
- **Security manager (User Name Server):**
  - ▶ Optional - separate install
  - ▶ One per domain
  - ▶ User / group management

# MQSeries Integrator V2 - Key Features

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- **"Processor Node" architecture**
  - ▶ Built-in "starter set": filter, database join, compute, warehouse, publish/subscribe, MQ input/output nodes
  - ▶ Processing node interfaces available for customer and partner plug-ins (rules and formatting or other specialized function)
- **Significant extension and synergy with database**
  - ▶ Functional and skill extensions (use of SQL as filter and computation language)
  - ▶ Input or output of a processing node can be a message or an RDBMS access
- **Warehousing**
  - ▶ User defines schema for writing message to database
  - ▶ Data extraction using standard data mining tools
- **Message parsing and formatting services**
  - ▶ Built-in message format dictionary and support for (multiple) plug-in, third-party dictionaries
  - ▶ Choice and switching between message formats; XML (self-defining), record structure (C, COBOL), partner formats

# MQSeries Integrator V2 - Key Features

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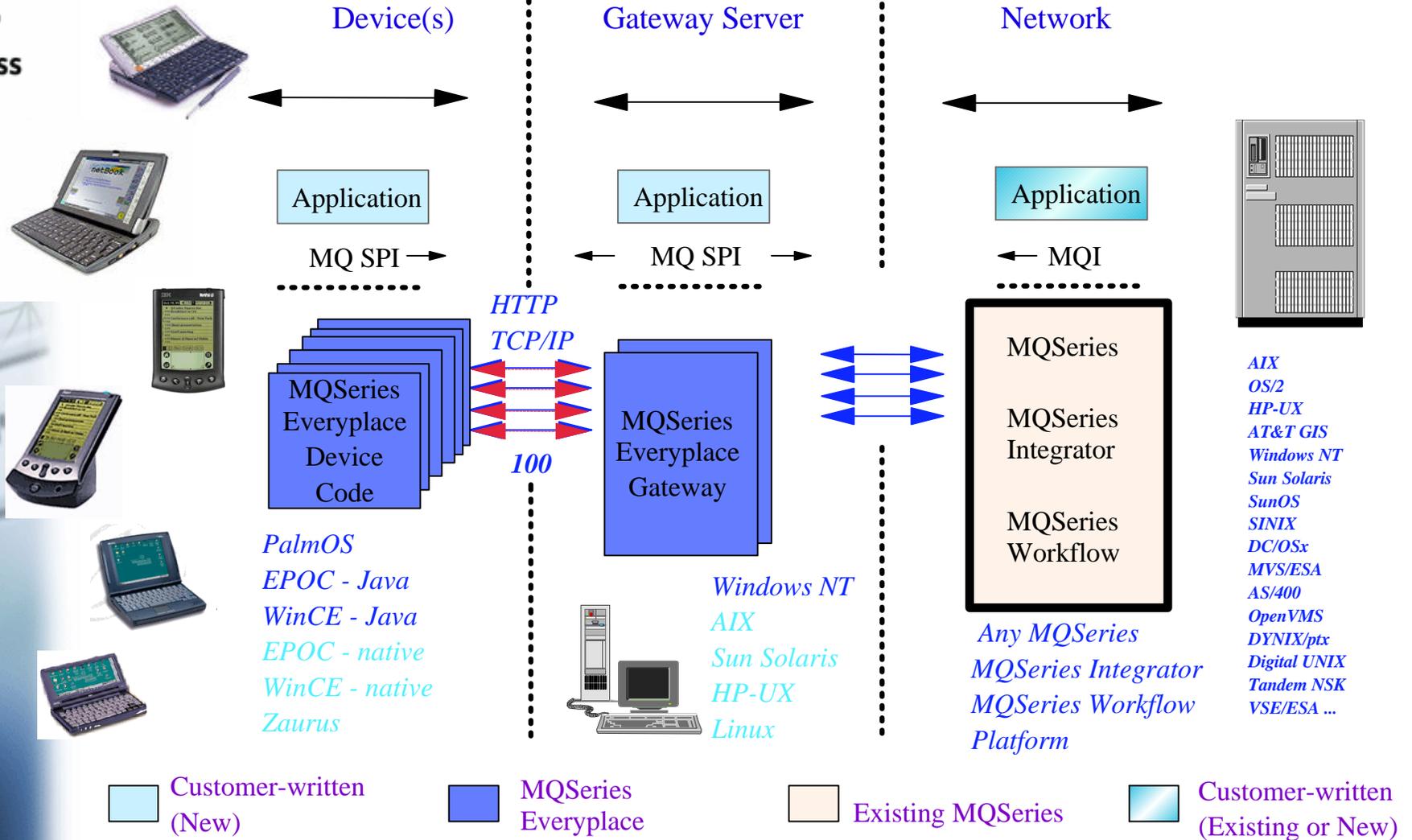


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- **Dynamic publish / subscribe**
  - ▶ Topic and/or content based routing
  - ▶ Subscriptions registered dynamically in response to requests for information required
  - ▶ Access control over topic name space
- **Scaleable and manageable infrastructure**
  - ▶ Multithreaded, multi-process architecture, supporting multiple (configurable) input queues
  - ▶ Architected systems management interface (operation and reporting)
- **Tools**
  - ▶ Graphical wiring tool for 'Message Flow' addresses 'ease of use'
  - ▶ Message definition tools
  - ▶ Configuration and management tools

# MQSeries Everyplace Solutions



# MQSeries Home Page

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*Latest Updates, download code,  
announcements...*



***The MQSeries Home Page***

**<http://www.software.ibm.com/ts/mqseries/>**

