IBM MQ Advanced for z/OS

Value Unit Edition

v9.0.3 and Connector Pack Introduction
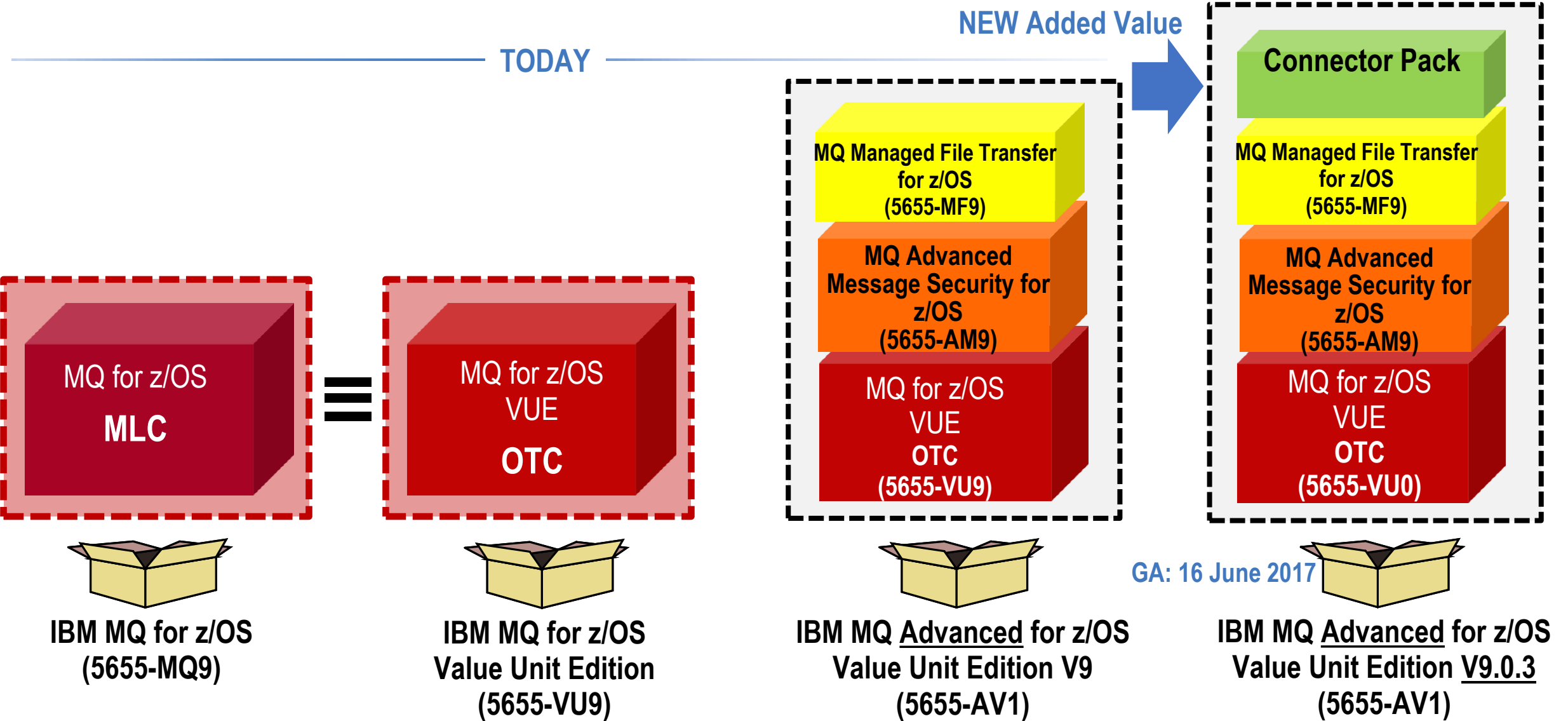
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New Value with Added Connectivity in MQ Advanced for z/OS VUE

NEW Added Value

TODAY

Connector Pack

MQ Managed File Transfer for z/OS
(5655-MF9)

MQ Advanced Message Security for z/OS
(5655-AM9)

MQ for z/OS VUE
OTC
(5655-VU9)

MQ for z/OS
MLC

=

MQ for z/OS VUE
OTC

MQ Managed File Transfer for z/OS
(5655-MF9)

MQ Advanced Message Security for z/OS
(5655-AM9)

MQ for z/OS VUE
OTC
(5655-VU0)

GA: 16 June 2017

IBM MQ for z/OS
(5655-MQ9)

**IBM MQ for z/OS
Value Unit Edition**
(5655-VU9)

**IBM MQ Advanced for z/OS
Value Unit Edition V9**
(5655-AV1)

**IBM MQ Advanced for z/OS
Value Unit Edition V9.0.3**
(5655-AV1)

IBM Managed File Transfer (MFT)

- *Flexible, robust, secure and fast file transfers leveraging your MQ network*
- *MQ Advanced for z/OS VUE moves application data **and file data** as messages*

⇨ File-to-file
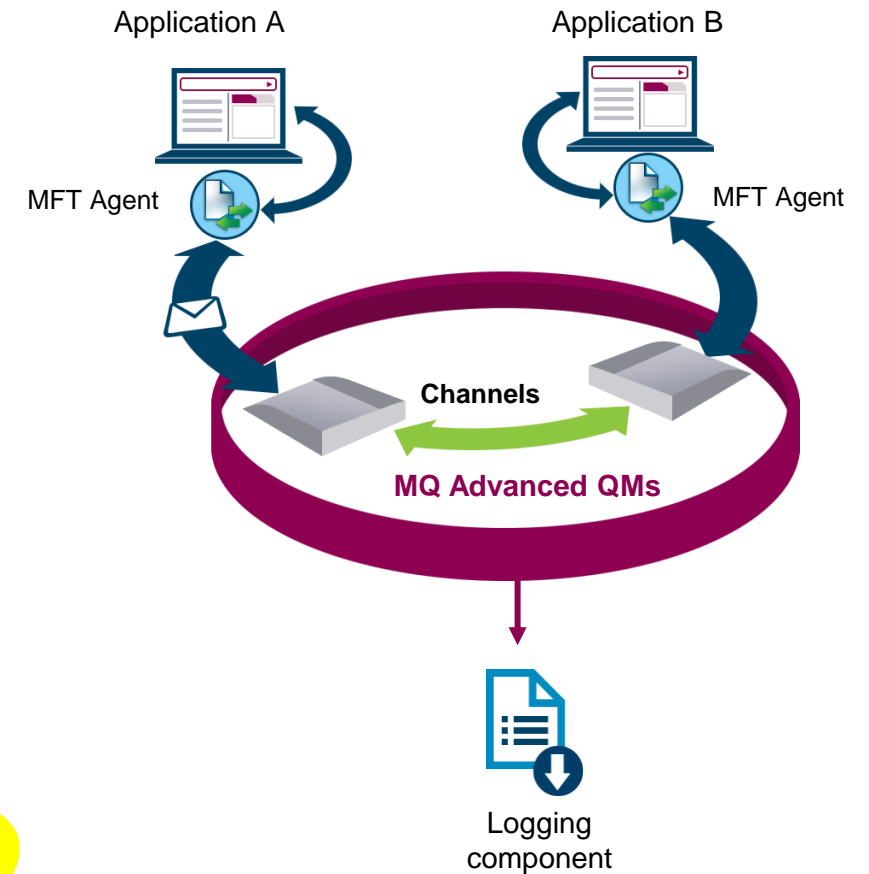
⇨ File-to-message

⇨ Message-to-file

Benefits:

➡ **Reliability** of delivery

➡ Increased **security** of system and data

➡ Integrated **management** and **recovery**

MFT Agent:

Performs the fundamental file transfer function of sending and receiving files from the local system
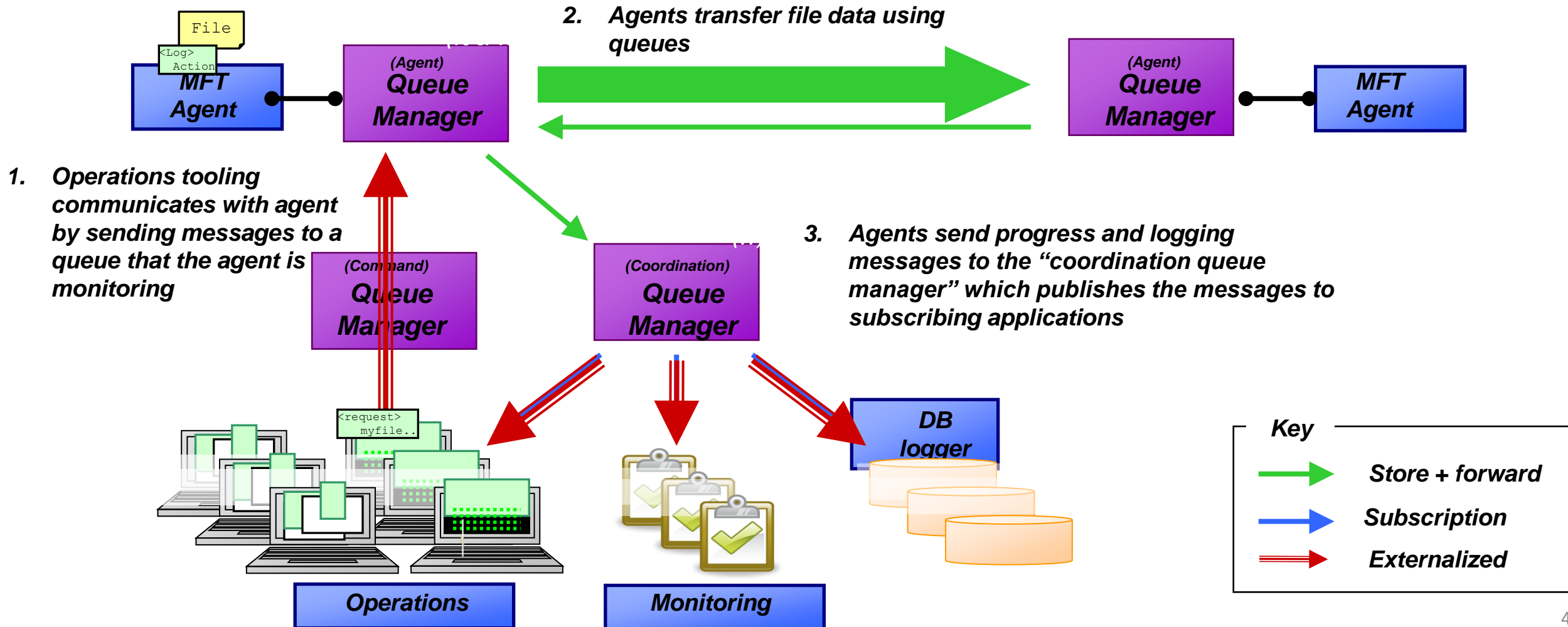
MFT Service:

Installs a file transfer agent on MQ server with additional capabilities

Application A

Application B

MFT Agent

MFT Agent

Channels

MQ Advanced QMs

Logging component

NEW

Unlimited deployments of MQ MFT Agents when connecting them to MQ Advanced Queue Managers

MQ Managed File Transfers (MFT) components

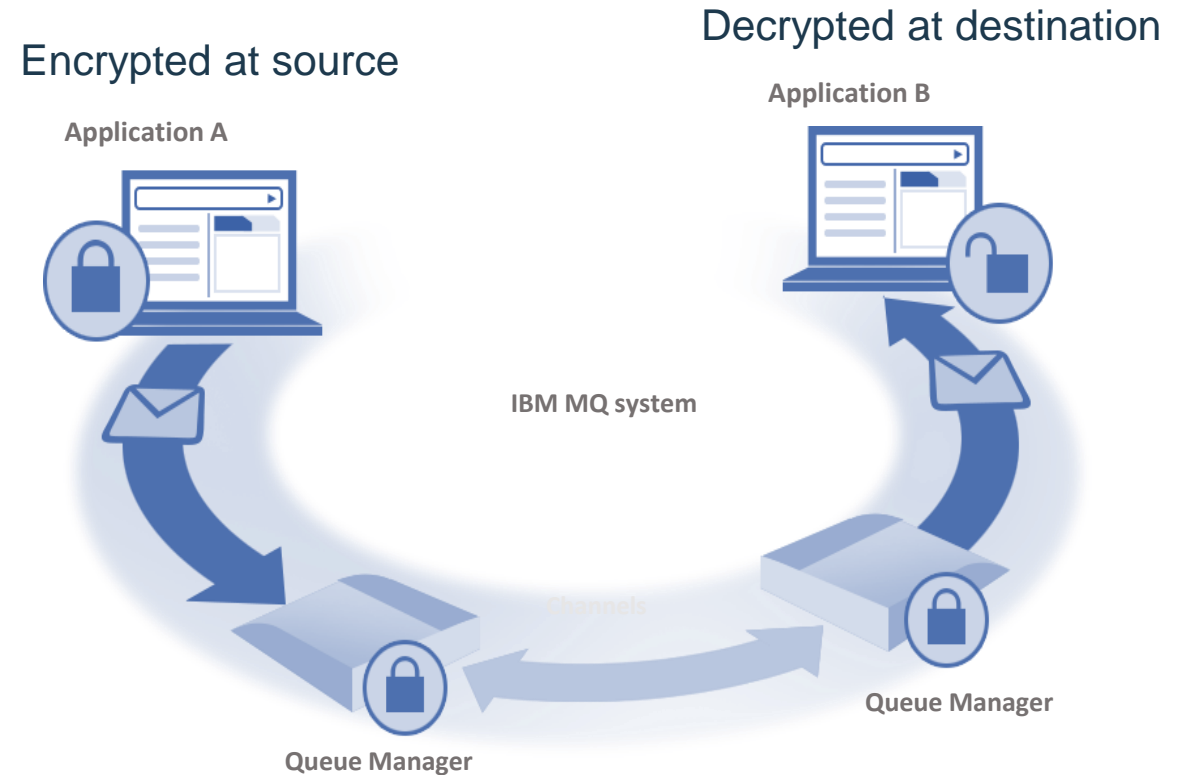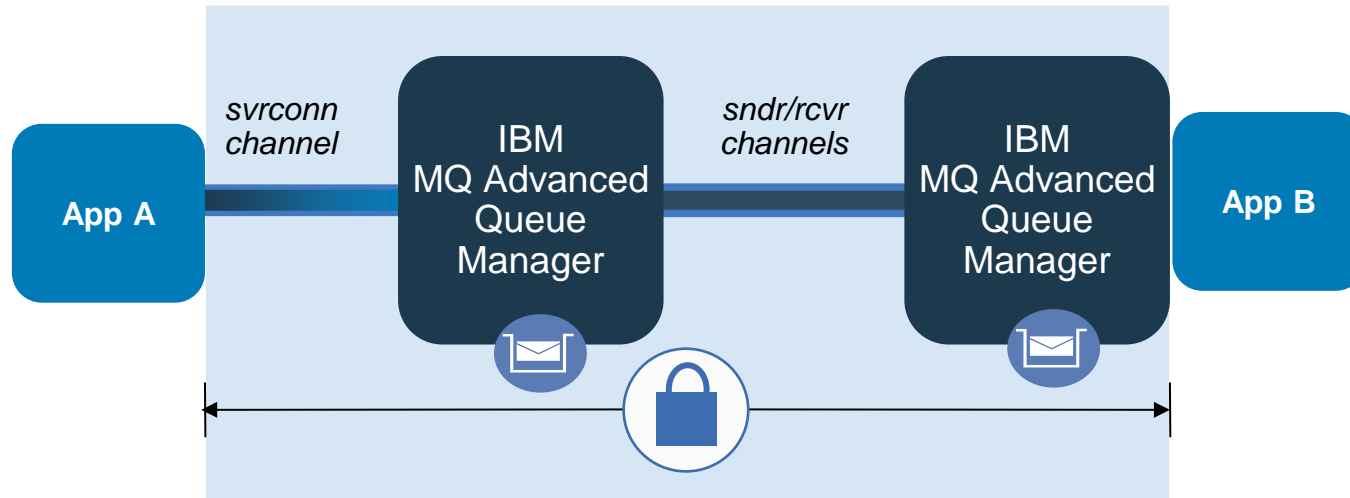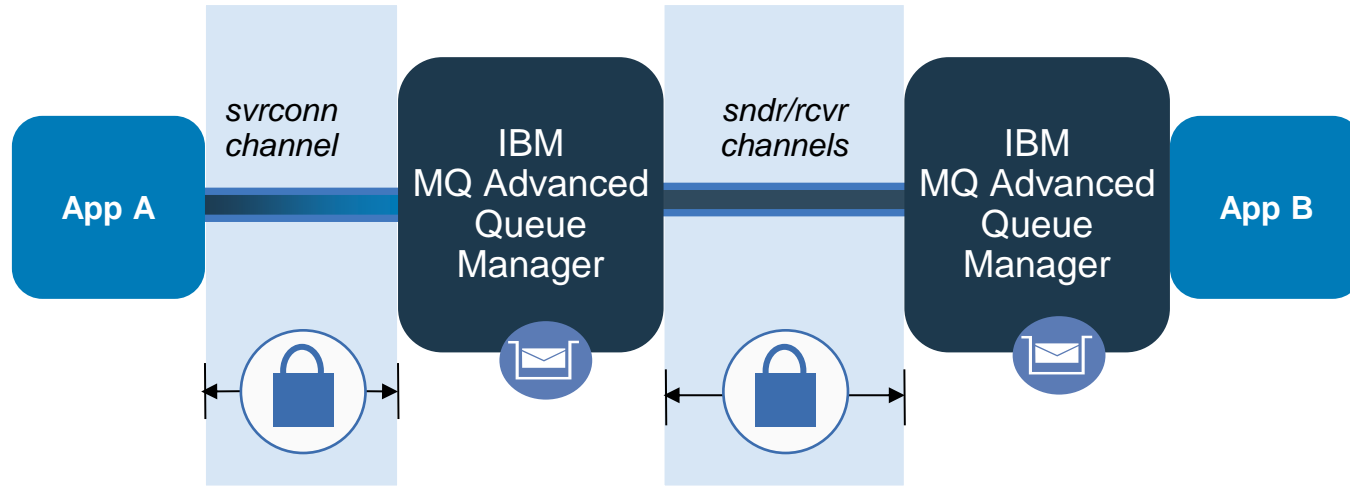Flexible, robust, secure and fast file transfers leveraging your MQ network

2. *Agents transfer file data using queues*

1. *Operations tooling communicates with agent by sending messages to a queue that the agent is monitoring*

3. *Agents send progress and logging messages to the "coordination queue manager" which publishes the messages to subscribing applications*

File
`<Log>`
Action

MFT Agent

(Agent)
Queue Manager

(Agent)
Queue Manager

MFT Agent

(Command)
Queue Manager

(Coordination)
Queue Manager

`<request>`
`myfile..`

DB logger

Operations

Monitoring

Key

Store + forward

Subscription

Externalized

IBM MQ Advanced Message Security (AMS)

MQ Advanced for z/OS VUE builds on MQ's extensive security adding end-to-end encryption and guaranteeing the privacy of message contents

- **Protects data at rest** in queues; detects and removes rogue messages

- Keeps MQ data **in compliance**
  - Credit card data protected by PCI-DSS
  - Confidential government data
  - Regional legislation such as GDPR

- **Authenticates** and **protects** messages across the enterprise making **audit simple**

- Applies end-to-end encryption to existing systems with **no application modifications**

- New Confidentiality option for encryption has **minimal performance impact**

Encrypted at source

Decrypted at destination

Application A

Application B
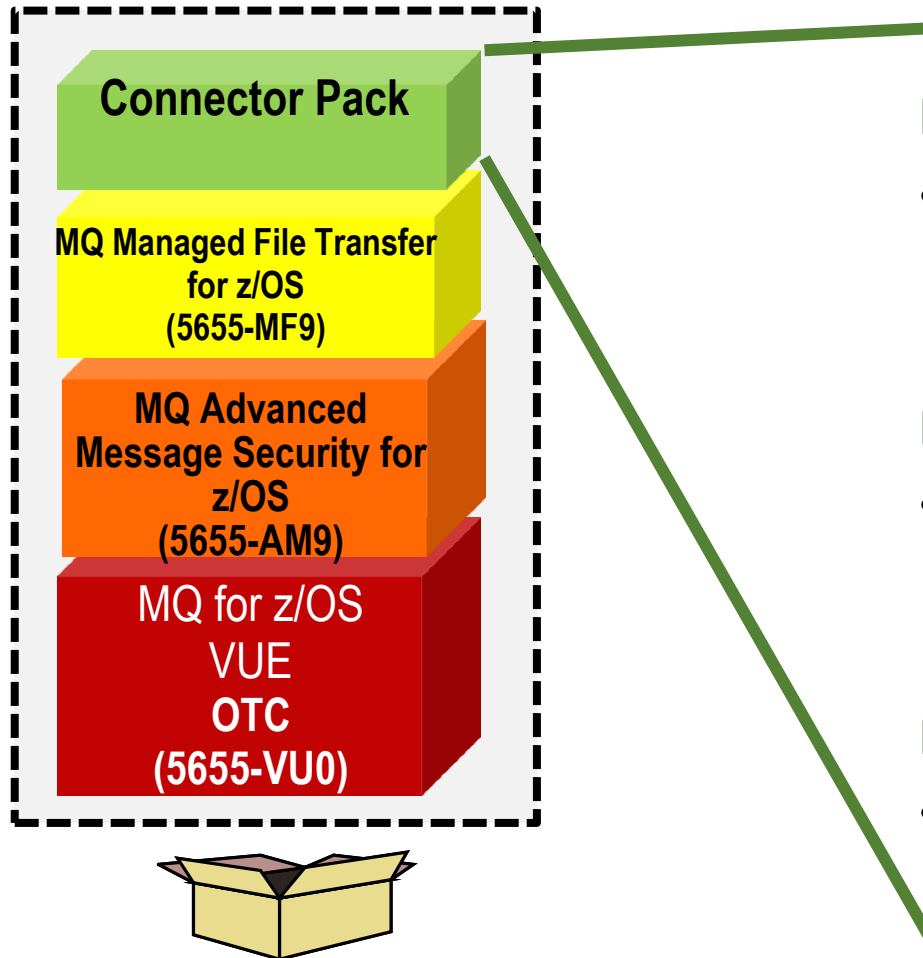
IBM MQ system

Queue Manager

Queue Manager

Channel Encryption vs Message Encryption

- MQ supports transport level protection with MQ channel SSL option

- Data is protected before it is sent over a channel

- With MQ AMS, end to end protection
  - Allows file data to be protected at the source system. Scope of protection ends when the message is delivered to its final destination
  - Data is secure even when at rest on a queue

What's in the New Connector Pack Component?

Connector Pack

MQ Managed File Transfer for z/OS (5655-MF9)

MQ Advanced Message Security for z/OS (5655-AM9)

MQ for z/OS VUE OTC (5655-VU0)

IBM MQ Advanced for z/OS VUE v9.0.3

IBM Cloud Product Insights support

- Provides *registration and usage information to the Cloud Product Insights service* to offer insight into the usage of the MQ estate across z/OS and distributed systems

Blockchain connector

- Provides the ability to perform a *message-driven query into the IBM Blockchain* for Bluemix service to gain insight into activity within the Blockchain

Managed File Transfer (MFT) Agent Connectivity

- Simplifies the deployment of MFT on z/OS by allowing a z/OS MFT Agent to *remotely connect* to a z/OS Queue Manager

IBM Cloud Product Insights Support

IBM has just launched the IBM Cloud Product Insights Bluemix service

Product Insights enhances the way IBM on-premise products can be registered and tracked, organizations can extend on-premise products achieving the benefits of cloud environments.

IT administrators can register on-premise traditional IBM Enterprise Software and create an inventory to track each instance, report on usage metrics, and get advice on other cloud services.

Enables you to connect to the IBM cloud for new insights on your on-premise environment and guidance for cloud service patterns

What Does that Mean for You and MQ on z/OS ?

Users register instances of their **IBM MQ Advanced for z/OS VUE** Queue Managers products with a central, IBM cloud hosted repository

Keeps track in a single place which queue managers you have, what levels they are running at, when they were last running etc.

High level usage information is collected (e.g. how many messages have gone through a QM). Giving a very high level overview of the system usage.

Mirrors V902 Distributed Registration + Usage Information
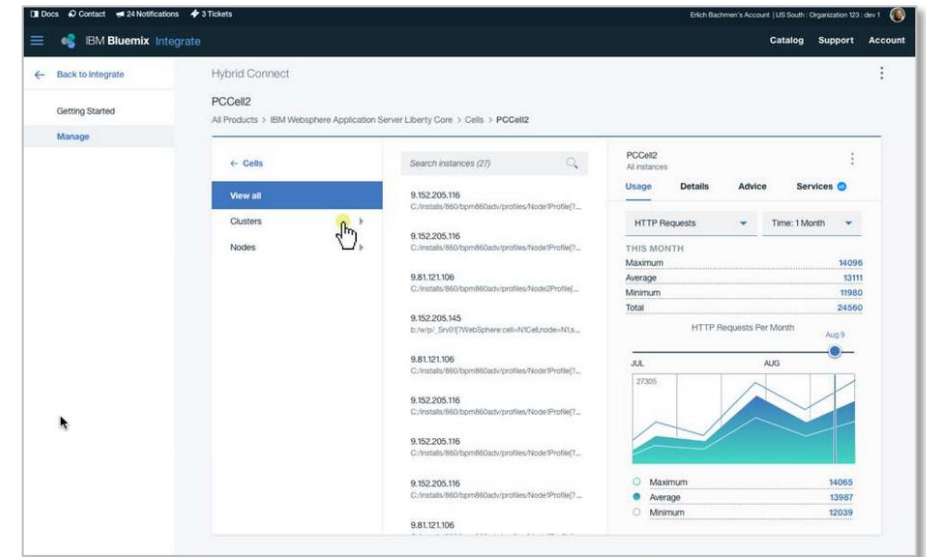
Blockchain Connector

MQ ➔ Blockchain

Request reply MQ message flow for applications to request information from Blockchain ("who currently owns the car with the registration number of IBM 2017 ") over MQ queues

Access to IBM Bluemix Blockchain Service

- Message driven query into the Blockchain using name/value pairs (JSON).
- Classic MQ "gateway" function. Send the query to the configured queue; reply to the MQ reply_queue.
- Only connects to IBM Blockchain in Bluemix today.
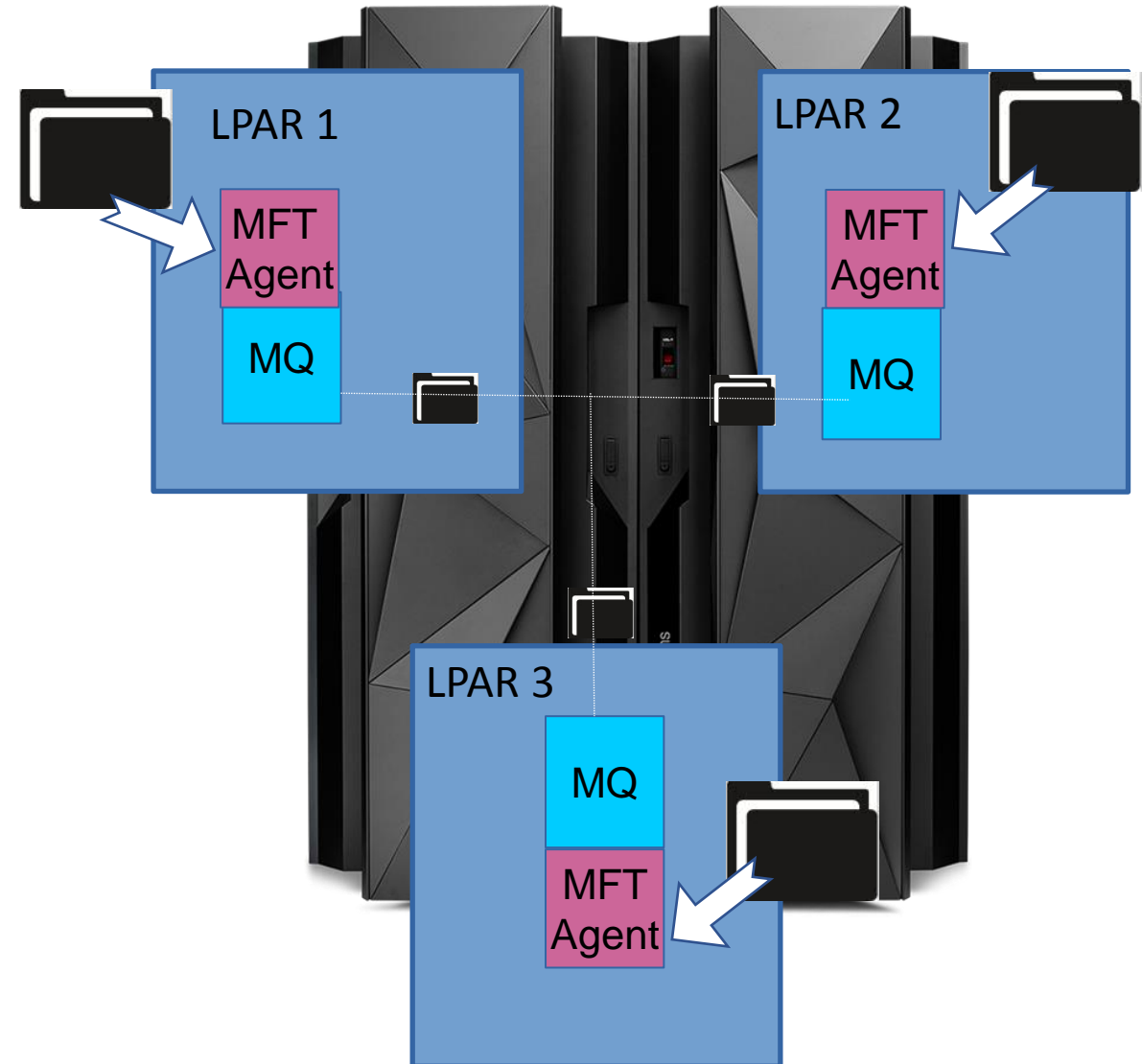- For more info, see the MQ v9 KC at "q130150 "

Bluemix

IBM MQ Bridge for Blockchain

Linux x86

MQ VUE

z/OS
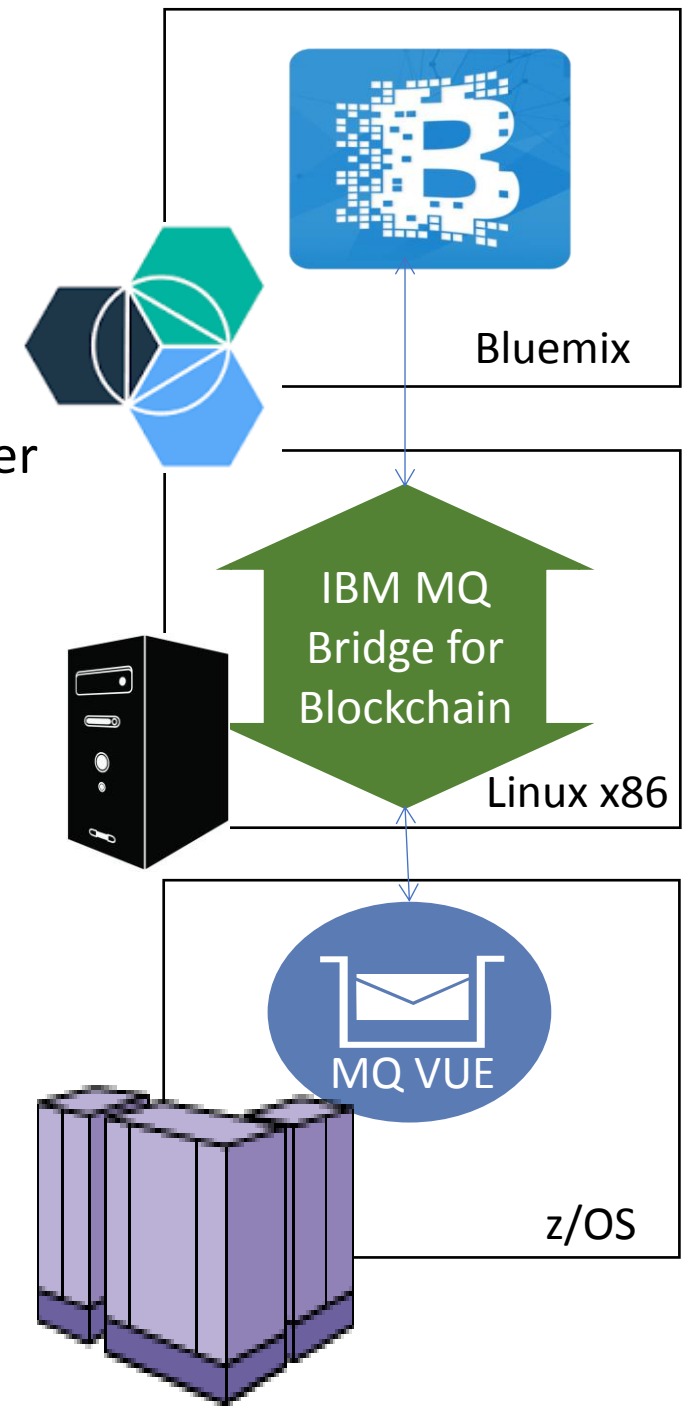
Managed File Transfer (MFT) Agent Connectivity – Before

Each LPAR

MFT Agent

- Only bindings mode connections to queue managers. All connections are local.

- Transfer files to and from other Managed File Transfer agents.

Managed File Transfer (MFT) Agent Connectivity - Simplified

Each LPAR

MFT Agent

- Client (LPAR1 + LPAR2) mode connection to Advanced VUE z/OS queue manager in remote LPAR (LPAR3)
- Make bindings (LPAR3) mode connection to Advanced VUE queue manager (LPAR3)
- Transfer files to and from other Managed File Transfer agents.
- **Reduces the number of Queue Managers required on z/OS**
  - **Simplified topology**
  - **Reduced/Easier Administration**
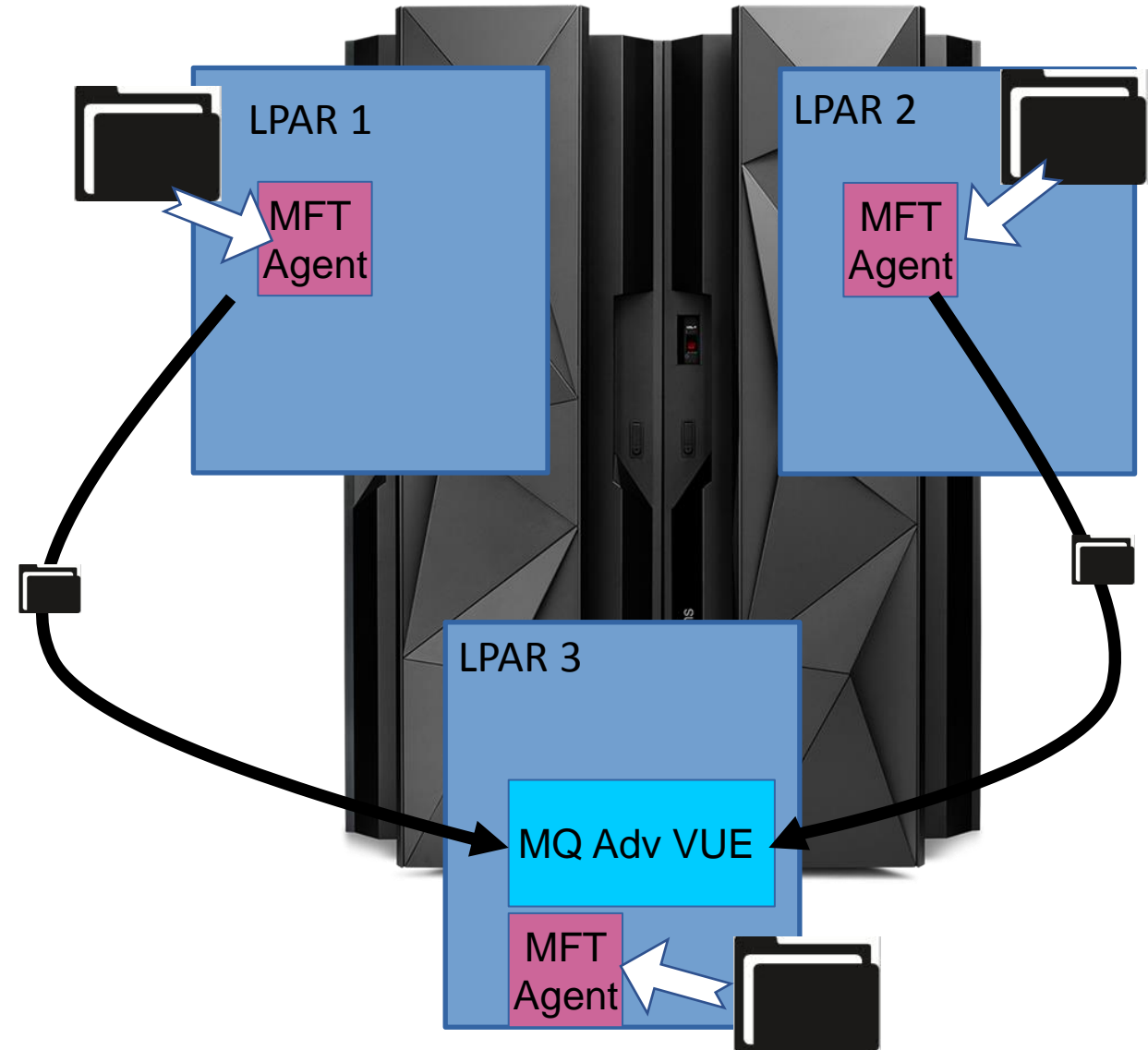
Want more info on MQv9.0.3?

See the "MQdev blog" entry or...
the Knowledge Center at "q129620 " or ...
the IBM Middleware User Community web
presentation