Questions and Answers for MQSeries for MVS/ESA V1.1.4

Background: IMS/ESA Version 5.1 (with additional APARs) has a new facility called OTMA (Open Transaction Manager Access). This provides a mechanism for MVS applications such as an MQSeries for MVS/ESA V1.1.4 IMS client to submit transactions or IMS commands, and to receive output from IMS transactions and IMS itself. OTMA solves the problem of connecting IMS Clients in a high performance manner such that the client can support interactions with the IMS for a large network, or large number of sessions. See the section on product pre-requisites for availability information on this IMS function.

The IMS Bridge in MQSeries for MVS/ESA V1.1.4 will give an efficient interface to the legacy system such that the processor will not need to be upgraded due to the change from 3270 connected terminals to MQSeries programs on distributed platforms.

The IMS Bridge is ideal for customers who want to integrate their legacy IMS/ESA applications with new applications. It is a component of MQSeries for MVS/ESA V1.1.4 that acts as an IMS/ESA OTMA Client.

Pre-requisite APARs

The MQSeries for MVS/ESA IMS Bridge is referred to as ″the IMS Bridge″ in the following. References to ″MQ″ refer to MQSeries for MVS/ESA Version 1.1.4, which contains the IMS Bridge code.

Question: What function is not available at GA for the IMS Bridge?

Answer: The resynchronization (″resync″) function needed to restart IMS and MQ applications without loss of data will not be available.

Question: Why is IBM shipping a product not yet suitable for production use?

Answer: We are responding to customers demands for the product to be shipped and supported as soon as possible. In the complex IMS world customers need to spend a great deal of time with a product prior to production roll out. The product shipped in June 1996 fulfils this need.

Question: Is the code of poor quality?

Answer: No, the code has been subjected to IBM′s normal rigorous test procedures. Only the stated function is unavailable.

Question: What effect does the lack of resync function have?

Answer: Lack of resync has the following effect on various transaction types:

1. Commands other than Fast Path or Conversational:

   These may be run using either commit mode 1 (send-then-commit) or commit mode 0 (commit-then-send). In the commit mode 1 case they are not intended to be recoverable and are thus not affected by the presence or absense of resync.

   When run using commit mode 0, OTMA allows them to be run with ″synch″ or without. MQ plans to always run them with ″synch″ (i.e. using STSN numbers to guarantee message integrity), but this will not be possible until the resync code is available. In the interim, MQ sends them all without ″synch″. This has several consequences.

   a. We cannot guarantee that output from these transactions may not be delivered more than once if the IMS/MQ connection is interrupted.

b. Non-persistant MQ messages sent to these transactions will work OK; but this will NOT be the case when resync is done. Non-persistant MQ messages sent to recoverable IMS transactions will then be rejected with IMS sense code x′0023′, MQ Report Code 335.

c. We cannot guarantee delivery of these messages to IMS.

d. No messages relating to resync problems will be seen by the operator.

e. No ′In-doubt′ URs will ever be reported due to Bridge.

f. Cases where IMS output messages are manually discarded (via the /DEQ command) will NOT be detected by MQ and reported.

2. Other non-recoverable These may be run using either commit mode 1 (send-then-commit) or commit mode 0 (commit-then-send). In the neither case are they ever intended to be recoverable. They are affected by the presence or absense of resync in only one particular:

   When run using commit mode 0, OTMA allows them to be run with ″synch″ or without. Again, MQ plans to always run them with ″synch″ (using STSN numbers of zero), but this will not be possible until the resync code is available.

   In the interim, MQ sends them all without ″synch″. This has one major consequence: Persistant MQ messages sent to these transactions will work OK, but IMS will NOT force the transaction to recoverable state as it will when resync is available.

There is no effect on the following resync-related commands:

3. Fast Path

   These must be run using commit mode 1 (send-then-commit). They are not intended to be recoverable and are thus not affected by the presence or absense of resync.

4. Conversational

   These must be run using commit mode 1 (send-then-commit). They are not intended to be recoverable and are thus not affected by the presence or absense of resync.

Question: Do we need special recovery procedures in the meantime?

Answer: The lack of resync function prevents certain error conditions from being detected. Therefore, your business processes should not assume once-and- only-once delivery of messages until the resync function is available. In terms of error recovery, lack of resync function simplifies recovery since many error cases will not be detected.

Question: When will the resync function be available?

Answer: The function will be shipped via APARs. Target date for these is the end of September, 1996.

Question: What levels of IMS/ESA and MVS/ESA do we need?

Answer: IMS level is 5.1 is needed, and so is MVS/ESA level 5.1.

Although IMS 5.1 no longer states that it needs MVS 5.1 to run OTMA, the MQSeries code is designed and tested to use MVS/ESA 5.1.

We do not see this being a problem to as customers normally upgrade MVS levels earlier than IMS levels.

APARs

The following APARs are the minimum maintenance required for OTMA.

PN64987 - PTFs UN75587 UN75588 UN75589
PN71728 - PTFs UN85888 UN85889
PN84200 - APAR fix available via DLL as of 06/05/96
PN83323 - ″ ″ ″ ″ ″ ″ ″ ″
PN84198 - ″ ″ ″ ″ ″ ″ ″ ″
PN84201 - ″ ″ ″ ″ ″ ″ ″ ″
PN84202 - ″ ″ ″ ″ ″ ″ ″ ″

The following apar referenced in your note is not required for OTMA, but is recommended:

PN80578 - control region wait/dependent region 0C4 due to storage management
failure when posting waiters
* apar fix available via DLL as of 06/18/96

The following PTFs are not required for OTMA, and would be recommended only if the problem were encountered. The customer may apply them as a normal part of HIPER and/or PE maintenance research.

UN85295 - PN77187 ABENDU0757 SUBCODE000 or SUBCODE001 after signoff
* apar is flagged HIPER

UN85865 - PN78631 ABENDU0757 SUBCODE010 on insert prefix call to queue
* PTF is flagged PE
* fast path users are the only ones affected

For MQSeries for MVS/ESA V1.1.4, APAR PN83964 will be needed for the re-sync. function. For other APAR information, refer to the PSP bucket from IBM RETAIN.

Question: Is the OTMA information in the IMS/ESA manual correct?

Answer: There are some changes in the Security section:

- The security set up required has changed from that defined in the OTMA manual. The changes are identified in IMS APAR 84201 and documented in the MQ Bridge book.
- In summary the security profiles used are in the FACILITY class (not the TIMS class) and use the following format: IMSXCF.<XCFgroupName>.<XCFmemberName>

Question: Are other APARs required?

Answer: Other functions in the IMS Bridge, and in the rest of the product have been subjected to IBM′s normal thorough testing. Some defects were found late in the test cycle, and are corrected by APARs available in July 1996. In particular, the DBCS Data Conversion function needs a corrective APAR.