IBM

Program Directory for

IBM MQ Advanced for z/OS

Value Unit Edition

Continuous Delivery

V9.0.4

Program Number 5655-AV1

HAV9010

for use with
z/OS

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GI13-3397-03

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1.0 Introduction

IBM MQ Advanced for z/OS VUE Version V9.0 has two types of release; a Long Term Support Release (LTSR) and a Continuous Delivery (CD) release. The differences between these two are documented in detail at
http://www.ibm.com/support/knowledgecenter/en/SSFKSJ_9.0.0/com.ibm.mq.pla.doc/q004715_.htm. This program directory describes installation of the FMIDs associated with the Continuous Delivery release.

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of IBM MQ Advanced for z/OS VUE. This publication refers to IBM MQ Advanced for z/OS VUE as IBM MQ Advanced VUE.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic program materials and documentation for IBM MQ Advanced VUE.

- 3.0, "Program Support" on page 5 describes the IBM support available for IBM MQ Advanced VUE.

- 4.0, "Program and Service Level Information" on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into IBM MQ Advanced VUE.

- 5.0, "Installation Requirements and Considerations" on page 9 identifies the resources and considerations that are required for installing and using IBM MQ Advanced VUE.

- 6.0, "Installation Instructions" on page 15 provides detailed installation instructions for IBM MQ Advanced VUE. It also describes the procedures for activating the functions of IBM MQ Advanced VUE, or refers to appropriate publications.

Before installing IBM MQ Advanced VUE, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, "Preventive Service Planning" on page 5 tells you how to find any updates to the information and procedures in this Program Directory.

IBM MQ Advanced VUE is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for IBM MQ Advanced VUE are included on the CBPDO tape.

Do not use this Program Directory if you install IBM MQ Advanced VUE with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this Program Directory as needed.

1.1 IBM MQ Advanced VUE Description

IBM MQ Advanced for z/OS VUE is a single offering enabling existing IBM MQ Advanced VUE customers to acquire entitlement to IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition in a single transaction.

IBM MQ Advanced for z/OS VUE enables z/OS applications to use message queuing to participate in message-driven processing with other IBM MQ enabled applications either on the z/OS platform or other platforms running IBM MQ.

IBM MQ Managed File Transfer for z/OS extends the use of IBM MQ to enable files to be packaged as messages and sent over the IBM MQ network, again originating on z/OS, or on other platforms or across a combination of both.

IBM MQ Advanced Message Security for z/OS extends IBM MQ by enabling messages flowing over IBM MQ to be encrypted so that the message contents remain secure between sending and receiving applications. These applications can be running on z/OS or other supported platforms and the applications do not require changing to make use of IBM MQ Advanced Message Security for z/OS capabilities.

IBM MQ Advanced for z/OS VUE contains all the function of IBM MQ Advanced for z/OS, but only licensed to run in zNALC (the AMS and MFT function will only run in the same LPAR as the VUE, so they too, are effectively tied to running in zNALC LPAR).

Introduced in V9.0.3 is a new Connector Pack component for IBM MQ Advanced for z/OS VUE bringing

- IBM MQ for z/OS connectivity to the IBM Product Insights service on Bluemix

- IBM MQ for z/OS connectivity to the IBM Blockchain service on Bluemix

- MFT Agent running on z/OS connectivity to IBM MQ that runs on a remote z/OS system

1.2 IBM MQ Advanced VUE FMIDs

IBM MQ Advanced VUE consists of the following FMIDs:

```
HAMS900
HMF9901
HUE9000
HAV9010
```

2.0 Program Materials

An IBM program is identified by a program number. The program number for IBM MQ Advanced VUE is 5655-AV1.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product.

The program announcement material describes the features supported by IBM MQ Advanced VUE. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 15 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for IBM MQ Advanced VUE in the *CBPDO Memo To Users Extension*.

Figure 1. Basic Material: Program Tape				
Medium	**Feature Number**	**Physical Volume**	**External Label**	**VOLSER**
3590 Tape	HAV9010	1	MQ Connector Pack	HAV901

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IBM MQ Advanced VUE.

2.3 Program Publications

The following sections identify the basic publications for IBM MQ Advanced VUE.

Figure 2 identifies the basic unlicensed publications for IBM MQ Advanced VUE. Publications can be accessed at the IBM Publications Center website at http://www.ibm.com/shop/publications/order/

Figure 2. Basic Material: Unlicensed		
Publication Title	**Form Number**	**Media Format**
IBM MQ Advanced for z/OS VUE V9.0.4 License Information DVD	GC34-7476	DVD-ROM
IBM MQ Advanced for z/OS VUE V9.0.4 Program Directory	GI13-3397	IBM Publications Center

No optional publications are provided for IBM MQ Advanced VUE.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IBM MQ Advanced VUE.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 3 during the installation of IBM MQ Advanced VUE.

Additionally, IBM MQ Advanced for z/OS VUE V9.0.4 documentation is published in IBM Knowledge Center, which can be viewed from a web browser with Internet access at http://www.ibm.com/support/knowledgecenter/SSFKSJ_9.0.0/com.ibm.mq.helphome.v90.doc/WelcomePagev9r0.htm.

Figure 3. Publications Useful During Installation		
Publication Title	**Form Number**	**Media Format**
IBM SMP/E for z/OS User's Guide	SA23-2277	Softcopy
IBM SMP/E for z/OS Commands	SA23-2275	Softcopy
IBM SMP/E for z/OS Reference	SA23-2276	Softcopy
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA32-0883	Softcopy

3.0 Program Support

This section describes the IBM support available for IBM MQ Advanced VUE.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

Before you install IBM MQ Advanced VUE, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed.

If you obtained IBM MQ Advanced VUE as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IBM MQ Advanced VUE is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following website:

http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp

You can also use S/390 SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support Website at http://www.ibm.com/software/support/.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for IBM MQ Advanced VUE are included in Figure 4.

UPGRADE	SUBSET	Description
MQMAMS	HAMS900	IBM MQ Advanced Message Security for z/OS
MQMMFT	HMF9901	MQ FTE
MQMESA	HUE9000	IBM MQ for z/OS Value Unit Edition
MQMESA	HAV9010	IBM MQ Connector Pack for z/OS

Figure 4. PSP Upgrade and Subset ID

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 5 on page 6 identifies the component IDs (COMPID) for IBM MQ Advanced VUE.

Figure 5. Component IDs			
FMID	**COMPID**	**Component Name**	**RETAIN Release**
HAMS900	5655AM900	IBM MQ Advanced Message Security	900
HMF9901	5655MF900	MQ FILE TRANS EDN	901
HUE9000	5655VU900	IBM MQ for z/OS Value Unit Edition	000
HAV9010	5655AV100	IBM MQ Connector Pack for z/OS	010

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IBM MQ Advanced VUE. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been incorporated into the program.

4.1 Program Level Information

No APARs have been incorporated into IBM MQ Advanced VUE.

4.2 Service Level Information

No PTFs against this release of IBM MQ Advanced VUE have been incorporated into the product package.

Frequently check the IBM MQ Advanced VUE PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.PRODUCTINSTALL-REQUIREDSERVICE)** operand on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IBM MQ Advanced VUE. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.

  The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.

- *Target system*: the system on which the program is configured and run.

  The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.

- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install IBM MQ Advanced VUE.

5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' driving system requirements.

5.1.2 Programming Requirements

Figure 6. Driving System Software Requirements				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	V2.1.0	N/A	No

Note: Installation might require migration to new z/OS releases to be service supported.

See http://www.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

IBM MQ Advanced VUE is installed into a file system (zFS). Before installing IBM MQ Advanced VUE, you must ensure that the target system file system data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system file system data sets must be mounted on the driving system.

If you plan to install IBM MQ Advanced VUE in a zFS file system, this requires that zFS be active on the driving system. Information on activating and using zFS can be found in z/OS Distributed File Service zSeries File System Administration, SC24-5989.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' programming requirements.

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use IBM MQ Advanced VUE.

IBM MQ Advanced VUE installs in the z/OS (Z038) SREL.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' target system requirements.

5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' machine requirements.

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Figure 7. Target System Mandatory Installation Requisites				
5650-ZOS	z/OS	V2.1.0 or higher	N/A	No
5655-MQ9	IBM MQ for z/OS with FMID JMS9018	V9.0.4	N/A	Yes

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

IBM MQ Advanced VUE has no conditional installation requisites.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' installation Requisites.

5.2.2.2 Operational Requisites: Operational requisites are products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Program Number	Product Name and Minimum VRM/Service Level
Figure 8. Target System Mandatory Operational Requisites	
5650-ZOS	z/OS V2.1.0
5655-MQ9	IBM MQ for z/OS V9.0.4 or higher

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' mandatory operational requisites.

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions. These products are specified as IF REQs.

Please refer to the following web page for the latest operational requisite product information for IBM MQ Advanced VUE. **http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.jsp.**

Figure 9. Target System Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5650-ZOS	z/OS V2.1.0 at PUT1509/RSU1512 (which satisfies APAR OA46622) or higher	Connector to IBM Product Insights service

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' conditional operational requisites.

5.2.2.3 Toleration/Coexistence Requisites: Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

IBM MQ Advanced VUE has no toleration/coexistence requisites.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites: Negative requisites identify products that must *not* be installed on the same system as this product.

Figure 10. Target System Negative Requisites	
Program Number	**Product Name and Minimum VRM/Service Level**
5655-MQ9	IBM MQ for z/OS V9.0.0

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' incompatibility (negative) requisites.

5.2.3 DASD Storage Requirements

IBM MQ Advanced VUE libraries can reside on all supported DASD types.

IBM MQ Advanced VUE installs into the Global, target and distribution zones previous created through the installation of IBM MQ for z/OS. There are no additional space requirements for IBM MQ Advanced VUE

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' DASD storage requirements.

5.3 FMIDs Deleted

Installing IBM MQ Advanced VUE might result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install IBM MQ Advanced VUE into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E manuals for instructions.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the FMIDs deleted by the individual products.

5.4 Special Considerations

IBM MQ Advanced VUE has no special considerations for the target system.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' special considerations for the target system.

5.4.1 SMP/E Considerations

IBM MQ Advanced VUE must be installed into the same SMP/E zones, including SMPCSI, target, distribution, and zFS data sets as IBM MQ for z/OS. This Program Directory provides sample jobs and instructions to do this.

See the Program Directories for IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition for details of the individual products' SMP/E Considerations.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of IBM MQ Advanced VUE.

Please note the following points:

- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.

- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IBM MQ Advanced VUE

The installation of IBM MQ Advanced VUE is effected by installing the IBM MQ Advanced Message Security for z/OS, IBM MQ Managed File Transfer for z/OS and IBM MQ for z/OS Value Unit Edition packages included in this offering, and by following the instructions below to install FMID HAV9010.

FMID HAV9010 must be installed into the same SMP/E zones containing the HMS9010 and JMS9018 FMIDs. The zones are created when you follow the installation instructions for IBM MQ for z/OS Value Unit Edition. You must complete the installation of IBM MQ for z/OS Value Unit Edition before proceeding with the installation of IBM MQ Advanced VUE by following the instructions below.

Follow the installation instructions in the relevant Program Directory to install each package. Included Program Directories are listed in Figure 11.

Figure 11. Program Directories included for component packages	
Included Component	**Program Directory Number**
IBM MQ Managed File Transfer for z/OS	GI13-3392
IBM MQ Advanced Message Security for z/OS	GI13-3398
IBM MQ for z/OS Value Unit Edition	GI13-3395

6.1.1 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IBM MQ Advanced VUE:

The sample installation jobs are sorted by name into an order in which to run them in sequence (after editing) to install IBM MQ Advanced VUE. The exact order in which to run the jobs is not absolutely

critical. Running the jobs in either the sequence they are listed in the list below or in the text of this chapter is acceptable.

Figure 12. Sample Installation Jobs			
Job Name	**Job Type**	**Description**	**RELFILE**
CSQ8A1RC	RECEIVE	Sample RECEIVE job	IBM.HAV9010.F2
CSQ8A2AP	APPLY	Sample APPLY job	IBM.HAV9010.F2
CSQ8A3AC	ACCEPT	Sample ACCEPT job	IBM.HAV9010.F2

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.4, "Perform SMP/E RECEIVE" on page 17) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 12 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN   DD DSN=IBM.HAV9010.F2,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.HAV9010.F2,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(11,41,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxIN,OUTDD=OUT
/*
```

See the following information to update the statements in the previous sample:

> TAPEIN:
>> **tunit** is the unit value that matches the product tape.
>> **volser** is the volume serial that matches the product tape.
>> **x** is the tape file number that indicates the location of the data set name on the tape.
>> See the documentation that is provided by CBPDO for the location of IBM.HAV9010.F2 on the tape.
> FILEIN:
>> **filevol** is the volume serial of the DASD device where the downloaded files reside.
> OUT:
>> **jcl-library-name** is the name of the output data set where the sample jobs are stored.
>> **dasdvol** is the volume serial of the DASD device where the output data set resides.

SYSIN:
    xxxxIN is either TAPEIN or FILEIN depending on your input DD statement.

6.1.2 Allocate SMP/E Target and Distribution Libraries

All data sets used by IBM MQ Advanced VUE are allocated by other products, so no new allocations are required.

6.1.3 Define DDDEF Entries

All DDDEFs used by IBM MQ Advanced VUE are created by other products, so no new DDDEFs are required.

6.1.4 Perform SMP/E RECEIVE

If you have obtained IBM MQ Advanced VUE as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IBM MQ Advanced VUE FMIDs, service, and HOLDDATA that are included on the CBPDO package. For more information, see the documentation that is included in the CBPDO.

Otherwise edit and submit sample job CSQ8A1RC to perform the SMP/E RECEIVE for IBM MQ Advanced VUE. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.5 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job CSQ8A2AP to perform an SMP/E APPLY CHECK for IBM MQ Advanced VUE. Consult the instructions in the sample job for more information.

    Perform an SMP/E APPLY CHECK for IBM MQ Advanced VUE.

    HOLDDATA introduces ERROR HOLDs against FMIDs for HIPER APARs. Before the installation, ensure that you have the latest HOLDDATA, which is available through several different portals, including http://service.software.ibm.com/holdata/390holddata.html. Install the FMIDs regardless of the status of unresolved HIPERs. However, do not deploy the software until the unresolved HIPERs are analyzed to determine applicability.

    To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. The SMP/E root cause analysis identifies the cause only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

    Here is a sample to install FMIDs when ++HOLDs for HIPERs exist for the FMIDs that you install:

    a. To ensure that all recommended and critical service is installed with the FMIDs, if you have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below.

```
APPLY S(fmid,fmid,...)
     FORFMID(fmid,fmid,...)
     SOURCEID(RSU*)
     FIXCAT(IBM.ProductInstall-RequiredService)
     GROUPEXTEND .
```

Some HIPER APARs might not have PTFs available yet. You have to analyze the symptom flags to determine if you want to bypass the specific ERROR HOLDs and continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixes available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

b. To install the FMIDs without regard for the HIPERs, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. In this way, you can install FMIDs even though HIPER ERROR HOLDs against them still exist. Only the HIPER ERROR HOLDs are bypassed. After the FMIDs are installed, run the SMP/E REPORT ERRSYSMODS command to identify missing HIPER maintenance.

```
APPLY S(fmid,fmid,...)
     FORFMID(fmid,fmid,...)
     SOURCEID(RSU*)
     GROUPEXTEND
     BYPASS(HOLDCLASS(HIPER)) .
      ..any other parameters documented in the Program Directory
```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs. If you have received the latest HOLDDATA, you can also choose to run REPORT MISSINGFIX for Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDs during the installation of the FMIDs because PTFs are not yet available, you can be notified when the PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

Note: The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from APPLY CHECK: You will receive a return code of 0 if this job runs correctly.

Expected Return Codes and Messages from APPLY: You will receive a return code of 0 if this job runs correctly.

6.1.6 Perform SMP/E ACCEPT

Edit and submit sample job CSQ8A3AC to perform an SMP/E ACCEPT CHECK for IBM MQ Advanced VUE. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. The SMP/E root cause analysis identifies the cause of only *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the *SMP/E Commands* book for details.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

Note: The GROUPEXTEND operand indicates that SMP/E accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from ACCEPT CHECK: You will receive a return code of 0 if this job runs correctly.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

Expected Return Codes and Messages from ACCEPT: You will receive a return code of 0 if this job runs correctly.

6.2 Activating IBM MQ Advanced VUE

Publications can be accessed at the IBM Publications Center website at http://www.ibm.com/shop/publications/order/. Additionally IBM MQ V9.0.4 documentation is published in IBM Knowledge Center, which can be viewed from a web browser with Internet access at http://www.ibm.com/support/knowledgecenter/SSFKSJ_9.0.0/com.ibm.mq.ins.doc/q119080_.htm

6.2.1 Updating the IBM MQ JCL Procedure

After installing IBM MQ Advanced VUE, the SCUEAUTH target library must be APF authorized and added to the started task JCL procedure for eligible queue managers running in the zNALC LPAR.

SCUEAUTH must be added to the STEPLIB DD concatenation above the existing SCSQAUTH library.

7.0 Notices

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Reader's Comments

Program Directory for IBM MQ Advanced for z/OS VUE, November 2017

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