Program Directory for

IBM z/OS DFSMS Cloud Data Manager

English and Japanese

V1.1.0

Program Number 5698-CDM

FMID HGBQ110

for Use with
z/OS

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GI13-5574-00

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 20.

Contents

Figures

1.0 Introduction

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 z/OS DFSMS Cloud Data Manager. This publication refers to IBM z/OS DFSMS Cloud Data Manager as IBM DFSMScdm.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for IBM DFSMScdm.
- 3.0, “Program Support” on page 5 describes the IBM support available for IBM DFSMScdm.
- 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 DFSMScdm.
- 5.0, “Installation Requirements and Considerations” on page 8 identifies the resources and considerations that are required for installing and using IBM DFSMScdm.
- 6.0, “Installation Instructions” on page 14 provides detailed installation instructions for IBM DFSMScdm. It also describes the procedures for activating the functions of IBM DFSMScdm, or refers to appropriate publications.

Before installing IBM DFSMScdm, 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; after which, keep the documents for your 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 DFSMScdm is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The program directory that is provided in softcopy format on the CBPDO is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for IBM DFSMScdm are included on the CBPDO.

Do not use this program directory if you install IBM DFSMScdm 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 DFSMScdm Description

The IBM z/OS DFSMS Cloud Data Manager provides support for z/OS clients interested in using cloud storage for z/OS data. Version 1.1 of DFSMScdm enables clients to migrate large amounts of aging DFSMS Hierarchical Storage Manager (DFSMShsm) data from physical or virtual tape to cloud objects, including object storage in the IBM TS7700 virtual tape library. By moving inactive DFSMShsm data to cloud objects:

- MSU consumption can be reduced by avoiding recycle processing

- Data can be accessed directly rather than serially, avoiding contention when multiple applications need access to different data sets on the same virtual tape

Clients can further reduce MSU consumption by using IBM Transparent Cloud Tiering to move data between disk and cloud with minimal z/OS host processing.

1.2 IBM DFSMScdm FMID

IBM DFSMScdm consists of the following FMID:

HGBQ110

2.0 Program Materials

An IBM program is identified by a program number. The program number for IBM DFSMScdm is 5698-CDM.

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

The program announcement material describes the features supported by IBM DFSMScdm. 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 14 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 DFSMScdm in the *CBPDO Memo To Users Extension*.

2.2 Program Publications

The following sections identify the basic publications for IBM DFSMScdm.

Figure 1 identifies the basic licensed program publications for IBM DFSMScdm.

Figure 1. Basic Material: Licensed Publications

Publication Title	Form Number	Media Format
IBM z/OS DFSMS Cloud Data Manager License Information CD	LC28-3287	CD
IBM z/OS DFSMS Cloud Data Manager License Information	GI13-5575	electronic

Figure 2 identifies the basic unlicensed publications for IBM DFSMScdm.

Figure 2. Basic Material: Unlicensed Publications

Publication Title	Form Number	Media Format
IBM z/OS DFSMS Cloud Data Manager 1.1.0 Guide and Reference	GC28-3275	electronic
IBM z/OS DFSMS Cloud Data Manager 1.1.0 Japanese Guide and Reference	GC28-3446	electronic

Note: Publications can be found in the IBM Documentation center:
English: https://www.ibm.com/docs/en/zdcdm
Japanese: https://www.ibm.com/docs/ja/zdcdm

2.3 Program Source Materials

No program source materials or viewable program listings are provided for IBM DFSMScdm.

2.4 Publications Useful During Installation

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

Figure 3. Publications Useful During Installation

Publication Title	Form Number
IBM z/OS SMP/E User's Guide	SA23-2277
IBM z/OS SMP/E Commands	SA23-2275
IBM z/OS SMP/E Reference	SA23-2276
IBM z/OS SMP/E Messages, Codes, and Diagnosis	GA32-0883

Note: These publications can be found in IBM Documentation. Use a web browser with internet access to refer to: https://www.ibm.com/docs/en/zos/2.5.0?topic=zos-smpe

3.0 Program Support

This section describes the IBM support available for IBM DFSMScdm.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install IBM DFSMScdm, 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. Use the **FIXCAT(IBM.PRODUCTINSTALL-REQUIREDSERVICE)** operand on the **APPLY CHECK**command. See 6.1.8, “Perform SMP/E APPLY CHECK and APPLY” on page 17 for a sample APPLY command

If you obtained IBM DFSMScdm as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IBM DFSMScdm 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:

https://www.ibm.com/support/pages/ibmsearch

For program support, access the Software Support Website at http://www.ibm.com/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 DFSMScdm are included in Figure 4.

Figure 4. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
5698CDM	HGBQ110	IBM DFSMScdm 1.1

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 DFSMScdm.

Figure 5. Component IDs

FMID	COMPID	Component Name	RETAIN Release
HGBQ110	5698CDM00	Cloud Data Manager	110

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IBM DFSMScdm. 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 DFSMScdm.

4.2 Service Level Information

No PTFs against this release of IBM DFSMScdm have been incorporated into the product package.

Frequently check the IBM DFSMScdm 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 DFSMScdm. 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 DFSMScdm.

5.1.1 Machine Requirements

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

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	V02.04.00 or higher	N/A	No

Note: SMP/E is a requirement for installation and is an element of z/OS.

Note: Installation might require migration to new z/OS releases to be service supported. See https://www.ibm.com/support/pages/lifecycle

5.2 Target System Requirements

This section describes the environment of the target system required to install and use IBM DFSMScdm.

IBM DFSMScdm installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites

Installation requisites identify products that are required and *must* be present on the system or products that are not required 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.

IBM DFSMScdm has no mandatory installation requisites.

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 DFSMScdm has no conditional installation requisites.

5.2.2.2 Operational Requisites

Operational requisites are products that are required and *must* be present on the system or products that are not required 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.

Figure 7. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5650-ZOS	z/OS V2.4 or higher
5650-ZOS	The z/OS DFSMS Hierarchical Storage Manager component of a supported release of z/OS. For DFSMShsm on z/OS 2.4, APAR OA59904 (PTF UJ04709) is required.

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.

IBM DFSMScdm has no 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 DFSMScdm has no 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.

IBM DFSMScdm has no negative requisites.

5.2.3 DASD Storage Requirements

IBM DFSMScdm libraries can reside on all supported DASD types.

Figure 8 lists the total space that is required for each type of library.

Figure 8. Total DASD Space Required by IBM DFSMScdm

Library Type	Total Space Required in 3390 Trks	Description
Target	90	MVS data sets
Distribution	90	MVS data sets

Notes:

1. For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.
2. Abbreviations used for data set types are shown as follows.

   U Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.

   S Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   E Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

   For more information about the names and sizes of the required data sets, see 6.1.6, “Allocate SMP/E Target and Distribution Libraries” on page 16.

3. Abbreviations used for the file system path type are as follows.

   N New path, created by this product.
   X Path created by this product, but might already exist from a previous release.
   P Previously existing path, created by another product.

4. All target and distribution libraries listed have the following attributes:

   - The default name of the data set can be changed.
   - The default block size of the data set can be changed.
   - The data set can be merged with another data set that has equivalent characteristics.

- The data set can be either a PDS or a PDSE, with some exceptions. If the value in the "ORG" column specifies "PDS", the data set must be a PDS. If the value in "DIR Blks" column specifies "N/A", the data set must be a PDSE.

5. All target libraries listed have the following attributes:
   - These data sets can be SMS-managed, but they are not required to be SMS-managed.
   - These data sets are not required to reside on the IPL volume.
   - The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.
6. All target libraries that are listed and contain load modules have the following attributes:
   - These data sets can not be in the LPA, with some exceptions. If the value in the "Member Type" column specifies "LPA", it is advised to place the data set in the LPA.
   - These data sets can be in the LNKLST.
   - These data sets are not required to be APF-authorized, with some exceptions. If the value in the "Member Type" column specifies "APF", the data set must be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install IBM DFSMScdm. The storage requirements of IBM DFSMScdm must be added to the storage required by other programs that have data in the same library or path.

Note: Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 9. Storage Requirements for IBM DFSMScdm Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SGBQELIB	REXX	ANY	U	PDS	FB	80	10	5
SGBQLLIB	Program	ANY	U	PDSE	U	0	15	N/A
SGBQMENU	Message	ANY	U	PDS	FB	80	5	5
SGBQMJPN	Message	ANY	U	PDS	FB	80	5	5
SGBQPENU	Panel	ANY	U	PDS	FB	160	15	10
SGBQPJPN	Panel	ANY	U	PDS	FB	160	15	10
SGBQSAMP	Sample	ANY	U	PDS	FB	80	10	10
SGBQSLIB	Skeleton	ANY	U	PDS	FB	80	5	5
SGBQTLIB	Table	ANY	U	PDS	FB	80	5	5

Figure 10. Storage Requirements for IBM DFSMScdm Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
AGBQELIB	U	PDS	FB	80	10	5
AGBQLLIB	U	PDSE	U	0	15	N/A
AGBQMENU	U	PDS	FB	80	5	5
AGBQMJPN	U	PDS	FB	80	5	5
AGBQPENU	U	PDS	FB	160	15	10
AGBQPJPN	U	PDS	FB	160	15	10
AGBQSAMP	U	PDS	FB	80	10	10
AGBQSLIB	U	PDS	FB	80	5	5
AGBQTLIB	U	PDS	FB	80	5	5

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 DFSMScdm.

Please note the following points:

- If you want to install IBM DFSMScdm into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- 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 DFSMScdm

6.1.1 SMP/E Considerations for Installing IBM DFSMScdm

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IBM DFSMScdm.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 11. Using values lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

Figure 11. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	Existing target CSi value	IBM suggests using your existing target system CSI's DSSPACE value.
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 Sample Jobs

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

Figure 12. Sample Installation Jobs

Job Name	Job Type	Description	SMPTLIB Data Set
GBQCSMP	ALLOCATE SMP/E and CSI data sets	Sample job to create SMP/E data sets, CSI data set and initialize	IBM.HGBQ110.F7
GBQEREC	RECEIVE	Sample job to SMP/E RECEIVE the FMID	IBM.HGBQ110.F7
GBQALTGT	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HGBQ110.F7
GBQDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HGBQ110.F7
GBQEAPK	APPLY Check	Sample APPLY Check job	IBM.HGBQ110.F7
GBQEAPP	APPLY	Sample APPLY job	IBM.HGBQ110.F7
GBQEACK	ACCEPT Check	Sample ACCEPT Check job	IBM.HGBQ110.F7
GBQEACC	ACCEPT	Sample ACCEPT job	IBM.HGBQ110.F7

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.5, “Perform SMP/E RECEIVE” on page 16) then copy the jobs from the SMPTLIB data sets to a work data set for editing and submission. See Figure 12 on page 14 to find the appropriate data set.

You can also copy the sample installation jobs from the product files by submitting the following job. 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=*
//FILEIN   DD DSN=IBM.HGBQ110.F7,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(20,15,10))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=FILEIN,OUTDD=OUT
    SELECT MEMBER=(GBQCSMP,GBQALTGT,GBQDDDEF,GBQEACC,GBQEACK)
    SELECT MEMBER=(GBQEAPK,GBQEAPP,GBQEREC)
/*
```

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

IN:

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.

6.1.4 Allocate SMP/E DS's and CSI

You can install IBM DFSMScdm by using one of the following methods:

- Use an existing Consolidate Software Inventory (CSI) environment
- Create a separate set of distribution and target zones in an existing CSI (OPTIONAL)
- Allocate a new set of SMP/E and CSI data sets (OPTIONAL)

If you're choosing to create a new SMP/E environment, you can edit and submit sample job **GBQCSMP** to create the SMP/E environment. 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 RECEIVE

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

You can also choose to edit and submit sample job **GBQEREC** to perform the SMP/E RECEIVE for IBM DFSMScdm. 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.

6.1.6 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job **GBQALTGT** to allocate the SMP/E target and distribution libraries for IBM DFSMScdm. 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.

6.1.7 Create DDDEF Entries

Edit and submit sample job **GBQDDDEF** to create DDDEF entries for the SMP/E target and distribution libraries for IBM DFSMScdm. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: If the UCLIN REP command is used instead of ADD, a return code of 0 or 4 is acceptable.

6.1.8 Perform SMP/E APPLY CHECK and APPLY

Perform an SMP/E APPLY CHECK for IBM DFSMScdm.

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

   The latest HOLDDATA is available through several different portals, including http://service.software.ibm.com/holdata/390holddata.html. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

   You should install the FMIDs regardless of the status of unresolved HIPER or FIXCAT APARs. However, do not deploy the software until the unresolved HIPER and FIXCAT APARs have been analyzed to determine their applicability. That is, before deploying the software either ensure fixing PTFs are applied to resolve all HIPER or FIXCAT APARs, or ensure the problems reported by all HIPER or FIXCAT APARs are not applicable to your environment.

   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 are sample APPLY commands:

   a. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

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

      Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDs in order to continue the installation of the FMIDs.

      This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs 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 unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

```
APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
 ..any other parameters documented in the program directory
```

This method is quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX command and specify Fix Category IBM.PRODUCTINSTALL-REQUIREDSERVICE to investigate missing recommended service.

If you bypass HOLDs during the installation of the FMIDs because fixing PTFs are not yet available, you can be notified when the fixing 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, select and edit JCL Job **GBQEAPP** and 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.

6.1.9 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for IBM DFSMScdm.

Edit and submit sample job **GBQEACK** to perform an SMP/E ACCEPT CHECK for IBM DFSMScdm. 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 *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, edit and submit JCL Job **GBQEACC** 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 CHECK: You will receive a return code of 0 if this job runs correctly.

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

6.2 Activating IBM DFSMScdm

The publication *IBM z/OS DFSMS Cloud Data Manager Version 1.1 Guide and Reference* (GC28-3275) or *IBM z/OS DFSMS Cloud Data Manager 1.1.0 Japanese Guide and Reference* (GC28-3446) contains the necessary information to customize and use IBM DFSMScdm.

- Define storage groups and classes, for use by IBM DFSMScdm
- Modify SMS ACS routines
- Define a PDSE to be used as the IBM DFSMScdm control data set
- Start the IBM DFSMScdm ISPF dialog and provide configuration parameters

6.3 Product Customization

For information on customizing IBM DFSMScdm, refer to Figure 2 on page 3.

7.0 Notices

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