Program Directory for

IBM Content Manager OnDemand

Servers

for z/OS

V10.5.0

Program Number 5697-CM1

FMID H272A50

for Use with
z/OS

Document Date: March 2020

GI13-4556-01

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 28.

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 Content Manager OnDemand Servers for z/OS. This publication refers to IBM Content Manager OnDemand Servers for z/OS as IBM Content Manager OnDemand Servers V10.5.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for IBM Content Manager OnDemand Servers V10.5.
- 3.0, “Program Support” on page 7 describes the IBM support available for IBM Content Manager OnDemand Servers V10.5.
- 4.0, “Program and Service Level Information” on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into IBM Content Manager OnDemand Servers V10.5.
- 5.0, “Installation Requirements and Considerations” on page 10 identifies the resources and considerations that are required for installing and using IBM Content Manager OnDemand Servers V10.5.
- 6.0, “Installation Instructions” on page 18 provides detailed installation instructions for IBM Content Manager OnDemand Servers V10.5. It also describes the procedures for activating the functions of IBM Content Manager OnDemand Servers V10.5, or refers to appropriate publications.

Before installing IBM Content Manager OnDemand Servers V10.5, 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 7 tells you how to find any updates to the information and procedures in this program directory.

IBM Content Manager OnDemand Servers V10.5 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 Content Manager OnDemand Servers V10.5 are included on the CBPDO tape.

Do not use this program directory if you install IBM Content Manager OnDemand Servers V10.5 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 Content Manager OnDemand Servers V10.5 Description

IBM Content Manager OnDemand for z/OS provides fast access to information. It processes the print output of application programs, extracts index fields from the data, stores the index information in a DB2 database, and stores one or more copies of the data. The IBM Content Manager OnDemand system provides capability to archive newly created and frequently accessed reports, automatically migrating them to other types of storage as they age. IBM Content Manager OnDemand fully integrates the capabilities of Advanced Function Presentation (AFP(®)), including management of resources, indexes, and annotations, and supports full fidelity reprinting of documents to devices attached to a workstation, IBM Content Manager OnDemand server, or other servers on the network.

1.2 IBM Content Manager OnDemand Servers V10.5 FMID

IBM Content Manager OnDemand Servers V10.5 consists of the following FMID:

H272A50

2.0 Program Materials

An IBM program is identified by a program number. The program number for IBM Content Manager OnDemand Servers V10.5 is 5697-CM1.

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 Content Manager OnDemand Servers V10.5. 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 18 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 Content Manager OnDemand Servers V10.5 in the *CBPDO Memo To Users Extension*.

Figure 1 describes the program file content for IBM Content Manager OnDemand Servers V10.5. You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

Notes:

1. The data set attributes in this table must be used in the JCL of jobs that read the data sets. However, because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1 (Page 1 of 2). Program File Content

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.H272A50.F1	PDSE	FB	80	8800
IBM.H272A50.F2	PDSE	VB	255	27998
IBM.H272A50.F3	PDSE	VB	255	27998
IBM.H272A50.F4	PDSE	VB	255	27998
IBM.H272A50.F5	PDSE	VB	255	27998

Figure 1 (Page 2 of 2). Program File Content

Name	ORG	RECFM	LRECL	BLK SIZE
IBM.H272A50.F6	PDSE	VB	255	27998
IBM.H272A50.F7	PDSE	FB	80	8800
IBM.H272A50.F8	PDSE	U	0	6144
IBM.H272A50.F9	PDSE	FB	80	8800
IBM.H272A50.F10	PDSE	FB	80	8800
IBM.H272A50.F11	PDSE	FB	80	8800

2.2 Optional Machine-Readable Material

The distribution medium for this program is physical media or downloadable files.

Figure 2 describes the physical media.

Figure 2. Optional Material

Medium	Physical Volume	External Label	Unload Utility	VOLSER
3480	1	OND OS390 ACIF	SMP/E	QN4470

Note:

All customers that order the IBM Content Manager OnDemand Servers V10.5 should receive the tape containing FMID HQN4470 and the Program Directory GI13-3009-03 for the Enhanced ACIF.

2.3 Program Publications

The following sections identify the basic publications for IBM Content Manager OnDemand Servers V10.5.

Figure 3 identifies the basic unlicensed publications for IBM Content Manager OnDemand Servers V10.5. Those that are in softcopy format publications can be obtained from the IBM Content Manager OnDemand Knowledge Center https://www.ibm.com/support/knowledgecenter/SSQHWE_10.5.0

Figure 3. Basic Material: Unlicensed Publications

Publication Title	Form Number	Media Format
IBM Content Manager OnDemand for z/OS Program Directory	GI13-4556-01	Web
IBM Content Manager OnDemand for z/OS Licensed Program Spec	LC27-9023-01	Web
IBM Content Manager OnDemand for z/OS Introduction and Planning Guide		Web
IBM Content Manager OnDemand for z/OS Configuration Guide		Web
IBM Content Manager OnDemand for z/OS Administration Guide		Web
IBM Content Manager OnDemand for z/OS Messages and Codes		Web
Content Manager OnDemand Web Enablement Kit (ODWEK) Implementation Guide		Web
IBM Content Manager OnDemand for z/OS Indexing Reference		Web
IBM Content Manager OnDemand for z/OS Client Installation Guide		Web
IBM Content Manager OnDemand for z/OS Windows Client Customizaton Guide		Web

Note:

To view any of these documents, go to the following website:

- The IBM Content Manager OnDemand Knowledge Center at: http://www.ibm.com/support/knowledgecenter/SSQHWE_10.5.0

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IBM Content Manager OnDemand Servers V10.5.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 4 during the installation of IBM Content Manager OnDemand Servers V10.5.

Figure 4. Publications Useful During Installation

Publication Title	Form Number	Media Format
IBM SMP/E for z/OS User's Guide	SA23-2277	http://www.ibm.com/shop/publications/order/
IBM SMP/E for z/OS Commands	SA23-2275	http://www.ibm.com/shop/publications/order/
IBM SMP/E for z/OS Reference	SA23-2276	http://www.ibm.com/shop/publications/order/
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA32-0883	http://www.ibm.com/shop/publications/order/

Note:

The *IBM Content Manager OnDemand for z/OS Introduction and Planning Guide* and the *IBM Content Manager OnDemand for z/OS Configuration Guide* are useful during installation. See Figure 3 on page 4 for information about these publications,

3.0 Program Support

This section describes the IBM support available for IBM Content Manager OnDemand Servers V10.5.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install IBM Content Manager OnDemand Servers V10.5, 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 6.1.10, “Perform SMP/E APPLY” on page 24 for a sample APPLY command

If you obtained IBM Content Manager OnDemand Servers V10.5 as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IBM Content Manager OnDemand Servers V10.5 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://wwww.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 Content Manager OnDemand Servers V10.5 are included in Figure 5.

Figure 5. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
ODMP1050	H272A50	IBM Content Manager OnDemand for z/OS

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 6 on page 8 identifies the component IDs (COMPID) for IBM Content Manager OnDemand Servers V10.5.

Figure 6. Component IDs

FMID	COMPID	Component Name	RETAIN Release
H272A50	5655H3900	ODMPBASE z/OS	A50
HQN4470	564806201	ACIF	470

Note:

All customers that order IBM Content Manager Demand Servers V10.5 should also receive the tape containing FMID HQN4470 and the Program Directory GI13-3009-03 for the Enhanced ACIF.

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IBM Content Manager OnDemand Servers V10.5. 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

The following APAR fixes against previous releases of IBM Content Manager OnDemand Servers V10.5 have been incorporated into this release. They are listed by FMID.

- FMID H272A50

PI81196	PI99025	PH10168
PI81337	PI98845	PH10620
PI85484	PI85507	PH12417
PI86566	PH01064	PH12893
PI86710	PH03101	PH11803
PI89173	PH05015	PH04933
PI89445	PH05553	PH11246
PI95416	PH07363	PH15827
PI93876	PH09919	PH14289
PI97450	PH09636	PH17680
PI97909	PH06952	

4.2 Service Level Information

No PTFs against this release of IBM Content Manager OnDemand Servers V10.5 have been incorporated into the product package.

Frequently check the IBM Content Manager OnDemand Servers V10.5 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 Content Manager OnDemand Servers V10.5. 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 Content Manager OnDemand Servers V10.5.

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 7. 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	V02.03.00	N/A	No

Note:

- Unix System Services tailored and operational
- TCP/IP tailored and operational
- Language Environment tailored and operational
- Linkage Editor/Program Binder tailored and operational
- The XL C/C++ libraries available

Note: SMP/E is a requirement for Installation and is an element of z/OS but can also be ordered as a separate product, 5655-G44, minimally V03.06.00.

Note: Installation might require migration to new z/OS releases to be service supported. See https://www-01.ibm.com/software/support/lifecycle/index_z.html.

IBM Content Manager OnDemand Servers V10.5 is installed into a file system, either HFS or zFS. Before installing IBM Content Manager OnDemand Servers V10.5, 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 data sets must be mounted on the driving system.

If you plan to install IBM Content Manager OnDemand Servers V10.5 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.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use IBM Content Manager OnDemand Servers V10.5.

IBM Content Manager OnDemand Servers V10.5 installs in the DBS (P115) 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.

Figure 8. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-DB2	DB2 12 for z/OS	12.01.00 or later	N/A	No

Note: Installation might require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

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.

Figure 9. Target System Conditional Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Svc Lvl to satisfy these APARs	Function for which this is a Req't	Included in the shipped product?
5650-zOS	DFSMS for z/OS	02.03.00 or higher	N/A	OAM and VSAM	No

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.

IBM Content Manager OnDemand Servers V10.5 has no 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.

Figure 10. Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
Any **one** of the following:		
5655-EC6	Enterprise COBOL for z/OS V6.2.0	Cobol
5650-ZOS	z/OS V1.6 or later	High Level Assembly
5650-ZOS	z/OS V2.3.0 or later	InfoPrint Services for z/OS
5650-DB2	V12.0	DB2 for z/OS V12.0 with ODBC
5655-DGG	08.01.00 or later	IBM 31-bit SDK for z/OS Java Technology
5655-DGH	08.01.00 or later	IBM 64-bit SDK for z/OS Java Technology

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 Content Manager OnDemand Servers V10.5 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 Content Manager OnDemand Servers V10.5 has no negative requisites.

5.2.3 DASD Storage Requirements

IBM Content Manager OnDemand Servers V10.5 libraries can reside on all supported DASD types.

Figure 11 lists the total space that is required for each type of library.

Figure 11. Total DASD Space Required by IBM Content Manager OnDemand Servers V10.5

Library Type	Total Space Required in 3390 Trks	File System Description
Target	12,000	
Distribution	13,000	
File System(s)	18,000	zFS or HFS

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 21.
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 be in the LPA, but they are not required to be in the LPA.
   - These data sets can be in the LNKLST.
   - These data sets are not required to be APF-authorized with the exception of SARSLOAD which must be APF-authorized.

If the table indicates that the SMPLTS data set must be a PDSE and your existing SMPLTS is a PDS, you must allocate a new PDSE and copy your SMPLTS into it; then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

Figure 12. Storage Requirements for SMP/E Data Sets

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SMPLTS	E	PDSE	U	0	1500	6144

The following figures describe the target and distribution libraries and file system paths required to install IBM Content Manager OnDemand Servers V10.5. The storage requirements of IBM Content Manager OnDemand Servers V10.5 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 13 (Page 1 of 2). Storage Requirements for IBM Content Manager OnDemand Servers V10.5 Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SARSDBR1	DATA2	ANY	U	PDS	FB	80	2	5
SARSDFSD		ANY	S	PDSE	FB	80	8	N/A
SARSFTIA	DATA4	ANY	U	PDS	FB	80	330	15
SARSICUA	DATA4	ANY	U	PDS	FB	80	2400	150
SARSINST	DATA1 DATA3	ANY	U	PDS	FB	80	135	25
SARSLOAD	LOAD	ANY	S	PDSE	U	0	10000	N/A

Figure 14. IBM Content Manager OnDemand Servers V10.5 File System Paths

DDNAME	TYPE	Path Name
SARSAPI	N	/usr/lpp/ars/V10R5M0/www/api/IBM/
SARSAPPL	N	/usr/lpp/ars/V10R5M0/www/applets/IBM/
SARSBIN	N	/usr/lpp/ars/V10R5M0/bin/IBM/
SARSEBIN	N	/usr/lpp/ars/V10R5M0/bin/exits/IBM/
SARSHFNA	N	/usr/lpp/ars/V10R5M0/bin/font1/afm/IBM/
SARSHFNM	N	/usr/lpp/ars/V10R5M0/bin/font1/maps/IBM/
SARSHFNT	N	/usr/lpp/ars/V10R5M0/bin/font1/IBM/
SARSHMID	N	/usr/lpp/ars/V10R5M0/midserver/IBM/
SARSHMSC	N	/usr/lpp/ars/V10R5M0/locale/IBM/
SARSHSAM	N	/usr/lpp/ars/V10R5M0/samples/IBM/
SARSJARS	N	/usr/lpp/ars/V10R5M0/jars/IBM/
SARSMBIN	N	/usr/lpp/ars/V10R5M0/bin/xml/IBM/
SARSPLGI	N	/usr/lpp/ars/V10R5M0/www/plugins/IBM/
SARSWSIN	N	/usr/lpp/ars/V10R5M0/www/IBM/
SARSXBIN	N	/usr/lpp/ars/V10R5M0/bin/xml/samples/IBM/

Figure 15. Storage Requirements for IBM Content Manager OnDemand Servers V10.5 Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
AARSDBR1	U	PDS	FB	80	4	5
AARSFTIA	U	PDS	FB	80	240	15
AARSHAS1	U	PDS	VB	255	6300	15
AARSHCP1	U	PDS	VB	255	35	15
AARSHFN1	U	PDS	VB	255	25	5
AARSHMS1	U	PDS	VB	255	390	10
AARSHSM1	U	PDS	VB	255	100	5
AARSICUA	U	PDS	FB	80	2170	150
AARSINST	U	PDS	FB	80	140	25
AARSOBJ1	S	PDSE	U	0	3800	N/A

5.3 FMIDs Deleted

Installing IBM Content Manager OnDemand Servers V10.5 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 Content Manager OnDemand Servers V10.5 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 Commands book for details.

5.4 Special Considerations

IBM Content Manager OnDemand Servers V10.5 has no special considerations for the target system.

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 Content Manager OnDemand Servers V10.5.

Please note the following points:

- If you want to install IBM Content Manager OnDemand Servers V10.5 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.
- The ARSALLOC, ARSDDDEF amd ARSISMKD sample jobs perform the file allocations and definitions required for the base FMID and all the dependent FMIDs.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IBM Content Manager OnDemand Servers V10.5

6.1.1 SMP/E Considerations for Installing IBM Content Manager OnDemand Servers V10.5

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IBM Content Manager OnDemand Servers V10.5.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 16. 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 16. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	Default	Standard SMP/E Default
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 SMP/E CALLLIBS and SIDE DECK PROCESSING

IBM Content Manager OnDemand Servers V10.5 uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When IBM Content Manager OnDemand Servers V10.5 is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEEBND2
- SCEECPP
- SCEELIB
- SCEELKED
- SCEELKEX
- SCEEOBJ
- SDSNLOAD
- SDSNMACS
- SEZACMTX
- SEZARNT1
- SGLDEXPC
- SIEASID

IBM Content Manager OnDemand Servers V10.5 also uses Side Deck processing during link-edits. When IBM Content Manager OnDemand Servers V10.5 is installed,
ensure that the DDDEFs exist for the following libraries:

- SARSDFSD
- SARSFTIA
- SARSICUA
- SARSLOAD

Note: The preceding DDDEFs are used only to resolve the link-edit for IBM Content Manager OnDemand Servers V10.5 using CALLLIBS and SIDE DECK processing. These data sets are not updated during the installation of IBM Content Manager OnDemand Servers V10.5.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IBM Content Manager OnDemand Servers V10.5:

Figure 17 (Page 1 of 2). Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
ARSREC	RECEIVE	Sample RECEIVE job	IBM.H272A50.F7
ARSALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.H272A50.F7
ARSISMKD	MKDIR	Sample job to invoke the supplied ARSMKDIR EXEC to allocate zFS paths	IBM.H272A50.F7

Figure 17 (Page 2 of 2). Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
ARSMKDIR	MKDIR	REXX exec to create the directories	IBM.H272A50.F7
ARSDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.H272A50.F7
ARSAPP	APPLY	Sample APPLY job	IBM.H272A50.F7
ARSACC	ACCEPT	Sample ACCEPT job	IBM.H272A50.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 21) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 17 on page 19 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.H272A50.F7,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.H272A50.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,(100,10,45))
//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 package.

volser is the volume serial that matches the product package.

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.H272A50.F7

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.

6.1.5 Perform SMP/E RECEIVE

If you have obtained IBM Content Manager OnDemand Servers V10.5 as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IBM Content Manager OnDemand Servers V10.5 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 ARSREC to perform the SMP/E RECEIVE for IBM Content Manager OnDemand Servers V10.5. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:RC=00

6.1.6 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job ARSALLOC to allocate the SMP/E target and distribution libraries for IBM Content Manager OnDemand Servers V10.5. Consult the instructions in the sample job for more information.

Note: It is not a requirement to allocate a new target zFS to install IBM Content Manager OnDemand Servers V10.5. Should you decide to allocate one, a step has been added to the allocate job ARSALLOC. Consult the instructions in the sample job for more information. **This is optional.**

Expected Return Codes and Messages:RC=00

6.1.7 zFS Processing

If you chose the option of installing into a new zFS file system, execute the following steps:

1. 6.1.7.1, “Create Mountpoint and Mount File System (Optional Step)” to create the mountpoint directory and mount the file system.
2. Continue with section 6.1.8, “Allocate File System Paths” on page 23.

If you are installing into an existing file system, skip the next section and go directly to 6.1.8, “Allocate File System Paths” on page 23.

Note: The installation procedures and JCL samples assume that the TSO user ID installing IBM Content Manager OnDemand Servers V10.5 has the proper **authority** to create data sets and zFS directories.

6.1.7.1 Create Mountpoint and Mount File System (Optional Step)

To create the mountpoint directory and mount the new file system created in the ARSALLOC job, execute the following steps:

1. To create the mountpoint execute the following TSO commands:
   - mkdir '-pathprefix-/usr/lpp/ars' MODE (7,5,5)

- mkdir '-pathprefix-/usr/lpp/ars/V10R5M0' MODE (7,5,5)

Required Updates: Change "-pathprefix-" to the appropriate high level directory name. The high level directory may be something like /SERVICE or a more meaningful name. For users installing in the root, remove this variable. Please note the replacement string is case sensitive.

2. To mount the new file system at the mountpoint directory created above, issue the following TSO MOUNT command:

```
MOUNT FILESYSTEM('?ARS?.V10R5M0.ZFS')    UPDATE #1
      MOUNTPOINT('-pathprefix-/usr/lpp/ars/V10R5M0') UPDATE #2
      TYPE(ZFS) MODE(RDWR)
```

UPDATE #1 = specifies the zFS data set name you allocated in job ARSALLOC.

UPDATE #2 = Change "-pathprefix-" to the value used for this variable when creating the mountpoint directory in the above step.

You should consider updating the BPXPRMxx PARMLIB member to mount the new zFS at IPL time. This may be helpful if an IPL occurs before the installation is complete. Once you have completed the steps in the Program Directory, you should re-mount the target zFS data set in read only mode to protect the data installed.

6.1.8 Allocate File System Paths

The target system HFS or zFS data set must be mounted on the driving system when running the sample ARSISMKD job since the job will create paths in the HFS or zFS.

Before running the sample job to create the paths in the file system, you must ensure that OMVS is active on the driving system and that the target system's HFS or zFS file system is mounted to the driving system. zFS must be active on the driving system if you are installing IBM Content Manager OnDemand Servers V10.5 into a file system that is zFS.

If you plan to install IBM Content Manager OnDemand Servers V10.5 into a new HFS or zFS file system, you must create the mountpoint and mount the new file system to the driving system for IBM Content Manager OnDemand Servers V10.5.

The recommended mountpoint is */usr/lpp/ars/V10R5M0*.

Edit and submit sample job ARSISMKD to allocate the HFS or zFS paths for IBM Content Manager OnDemand Servers V10.5. Consult the instructions in the sample job for more information.

If you create a new file system for this product, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

Expected Return Codes and Messages:RC=00

6.1.9 Create DDDEF Entries

Edit and submit sample job ARSDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IBM Content Manager OnDemand Servers V10.5. Consult the instructions in the sample job for more information.

- **If none of the DDDEFS have been defined before and the job is run with ADD**

  Expected Return Code and Messages from ARSDDDEF: RC=00

- **If you change from ADD to REP and some definitions were not present they will be added**

  Expected Return Code and Messages from ARSDDDEF: RC=04

- **If you get return code 08, check the output to verify which definitions have been defined. Edit the job and remove those definitions previously defined, verifying that the existing DDDEF's are appropriate to install this program, or you may change the ADD to REP. If you have verified the existing definitons are correct, than resubmit the job**

  Expected Return Codes and Messages from ARSDDDEF: RC=00

6.1.10 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job ARSAPP to perform an SMP/E APPLY CHECK for IBM Content Manager OnDemand Servers V10.5. 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, 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.

6.1.11 Perform SMP/E ACCEPT

Edit and submit sample job ARSACC to perform an SMP/E ACCEPT CHECK for IBM Content Manager OnDemand Servers V10.5. 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, 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.

6.1.12 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command identifies requisites for products that are installed in separate zones. This command also creates APPLY and ACCEPT commands in the SMPPUNCH data set. You can use the APPLY and ACCEPT commands to install those cross-zone requisites that the SMP/E REPORT CROSSZONE command identifies.

After you install IBM Content Manager OnDemand Servers V10.5, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries that describe all the target and distribution libraries to be reported on.

For more information about REPORT CROSSZONE, see the SMP/E manuals.

6.1.13 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

The following data sets, which were allocated and used by previous releases of this product, are no longer used in this release. You can delete these obsolete data sets after you delete the previous release from your system.

- AARSEXEC
- AARSHIM1
- AARSMENU
- AARSPENU
- AARSTENU
- SARSEXEC
- SARSMENU
- SARSPENU
- SARSTENU

The following file system paths, which were created and used by previous releases of this product, are no longer used in this release. You can delete these obsolete file system paths after you delete the previous release from your system.

- /usr/lpp/ars/VRM/www/images/IBM/
- /usr/lpp/ars/VRM/www/samples/IBM/
- /usr/lpp/ars/VRM/www/servlets/IBM/

Note: Where VRM = all prior releases to IBM Content Manager OnDemand Servers V10.5

The following DDDEF entries, which were created and used by previous releases of this product, are no longer used in this release. You can delete these obsolete DDDEF entries after you delete the previous release from your system.

- AARSEXEC
- AARSHIM1
- AARSMENU
- AARSPENU
- AARSTENU
- SARSEXEC
- SARSMENU
- SARSPENU
- SARSSERV
- SARSTENU
- SARSWIMG
- SARSWSAM

6.2 Activating IBM Content Manager OnDemand Servers V10.5

6.3 Product Customization

If you mount the file system in which you have installed IBM Content Manager OnDemand Servers V10.5 in read-only mode during execution, then complete the following tasks to activate IBM Content Manager OnDemand Servers V10.5:

The publication *IBM Content Manager OnDemand for z/OS Configuration Guide Version 10 Release 5* contains the necessary information to customize and use IBM Content Manager OnDemand Servers V10.5.

7.0 Notices

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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Program Directory for IBM Content Manager OnDemand Servers for z/OS, March 2020

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