



**Program Directory for  
CICS Transaction Server for z/OS Value Unit Edition V5.4  
- activation module**

V5.4.0

Program Number 5722-DFJ

FMID HCV7100

for use with  
z/OS

Document Date: June 2017

GI13-4403-00

**Note**

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 25.

A form for reader's comments appears at the back of this publication. When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© **Copyright International Business Machines Corporation 1974, 2017.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

|                                                                                                        |           |
|--------------------------------------------------------------------------------------------------------|-----------|
| <b>1.0 Introduction</b>                                                                                | <b>1</b>  |
| 1.1 CICS TS for z/OS Value Unit Edition V5.4 - activation module Description                           | 2         |
| 1.2 CICS TS for z/OS Value Unit Edition V5.4 - activation module FMIDs                                 | 2         |
| <b>2.0 Program Materials</b>                                                                           | <b>3</b>  |
| 2.1 Basic Machine-Readable Material                                                                    | 3         |
| 2.2 Optional Machine-Readable Material                                                                 | 3         |
| 2.3 Program Publications                                                                               | 3         |
| 2.4 Program Source Materials                                                                           | 3         |
| 2.5 Publications Useful During Installation                                                            | 4         |
| <b>3.0 Program Support</b>                                                                             | <b>5</b>  |
| 3.1 Program Services                                                                                   | 5         |
| 3.2 Preventive Service Planning                                                                        | 5         |
| 3.3 Statement of Support Procedures                                                                    | 6         |
| <b>4.0 Program and Service Level Information</b>                                                       | <b>7</b>  |
| 4.1 Program Level Information                                                                          | 7         |
| 4.2 Service Level Information                                                                          | 7         |
| <b>5.0 Installation Requirements and Considerations</b>                                                | <b>9</b>  |
| 5.1 Driving System Requirements                                                                        | 9         |
| 5.1.1 Machine Requirements                                                                             | 9         |
| 5.1.2 Programming Requirements                                                                         | 9         |
| 5.2 Target System Requirements                                                                         | 10        |
| 5.2.1 Machine Requirements                                                                             | 10        |
| 5.2.2 Programming Requirements                                                                         | 10        |
| 5.2.2.1 Installation Requisites                                                                        | 10        |
| 5.2.2.2 Operational Requisites                                                                         | 11        |
| 5.2.2.3 Toleration/Coexistence Requisites                                                              | 11        |
| 5.2.2.4 Incompatibility (Negative) Requisites                                                          | 12        |
| 5.2.3 DASD Storage Requirements                                                                        | 12        |
| 5.3 FMIDs Deleted                                                                                      | 14        |
| 5.4 Special Considerations                                                                             | 14        |
| 5.4.1 SMP/E Considerations                                                                             | 14        |
| <b>6.0 Installation Instructions</b>                                                                   | <b>17</b> |
| 6.1 Installing CICS TS for z/OS Value Unit Edition V5.4 - activation module                            | 17        |
| 6.1.1 SMP/E Considerations for Installing CICS TS for z/OS Value Unit Edition V5.4 - activation module | 17        |
| 6.1.2 SMP/E Options Subentry Values                                                                    | 17        |
| 6.1.3 Sample Jobs                                                                                      | 18        |

|                          |                                                  |           |
|--------------------------|--------------------------------------------------|-----------|
| 6.1.4                    | Run the installation Jobs                        | 19        |
| 6.1.5                    | Prepare the installation environment             | 20        |
| 6.1.5.1                  | Global zone                                      | 20        |
| 6.1.6                    | Allocate SMP/E Target and Distribution Libraries | 20        |
| 6.1.7                    | Create DDDEF Entries                             | 21        |
| 6.1.8                    | Perform SMP/E RECEIVE                            | 21        |
| 6.1.8.1                  | The DFHVRECV Job                                 | 21        |
| 6.1.8.2                  | The DFHVRCVE Job                                 | 21        |
| 6.1.9                    | Perform SMP/E APPLY                              | 22        |
| 6.1.10                   | Perform SMP/E ACCEPT                             | 23        |
| 6.1.11                   | Run REPORT CROSSZONE                             | 24        |
| 6.2                      | Product Customization                            | 24        |
| <b>7.0</b>               | <b>Notices</b>                                   | <b>25</b> |
| 7.1                      | Trademarks                                       | 25        |
| <b>Reader's Comments</b> |                                                  | <b>29</b> |

## Figures

|     |                                                                                                              |    |
|-----|--------------------------------------------------------------------------------------------------------------|----|
| 1.  | Publications Useful During Installation                                                                      | 4  |
| 2.  | PSP Upgrade and Subset ID                                                                                    | 5  |
| 3.  | Component IDs                                                                                                | 6  |
| 4.  | Driving System Software Requirements                                                                         | 10 |
| 5.  | Target System Mandatory Installation Requisites                                                              | 11 |
| 6.  | Target System Mandatory Operational Requisites                                                               | 11 |
| 7.  | Total DASD Space Required by CICS TS for z/OS Value Unit Edition V5.4 - activation module                    | 12 |
| 8.  | Storage Requirements for CICS TS for z/OS Value Unit Edition V5.4 - activation module Target Libraries       | 13 |
| 9.  | Storage Requirements for CICS TS for z/OS Value Unit Edition V5.4 - activation module Distribution Libraries | 14 |
| 10. | SMP/E Options Subentry Values                                                                                | 18 |
| 11. | Sample Installation Jobs                                                                                     | 18 |

---

# 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 CICS Transaction Server for z/OS Value Unit Edition V5.4 - activation module. This publication refers to CICS Transaction Server for z/OS Value Unit Edition V5.4 - activation module as CICS TS for z/OS Value Unit Edition V5.4 - activation module.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for CICS TS for z/OS Value Unit Edition V5.4 - activation module.
- 3.0, “Program Support” on page 5 describes the IBM support available for CICS TS for z/OS Value Unit Edition V5.4 - activation module.
- 4.0, “Program and Service Level Information” on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into CICS TS for z/OS Value Unit Edition V5.4 - activation module.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations that are required for installing and using CICS TS for z/OS Value Unit Edition V5.4 - activation module.
- 6.0, “Installation Instructions” on page 17 provides detailed installation instructions for CICS TS for z/OS Value Unit Edition V5.4 - activation module. It also describes the procedures for activating the functions of CICS TS for z/OS Value Unit Edition V5.4 - activation module, or refers to appropriate publications.

Before installing CICS TS for z/OS Value Unit Edition V5.4 - activation module, 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.

CICS TS for z/OS Value Unit Edition V5.4 - activation module 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module are included on the CBPDO tape.

Do not use this program directory if you install CICS TS for z/OS Value Unit Edition V5.4 - activation module 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module Description

CICS TS is IBM's leading product for transaction processing on the mainframe, and is used by a high proportion of the world's largest companies for their critical business processes. It is designed to execute mixed language application workloads, supporting both modern and traditional programming languages and models. Its extensive data communication services, and its foundations in service-oriented architecture (SOA), provide unparalleled connectivity and scalability. As a result, CICS TS fits naturally into a smart infrastructure of the kind needed for a flexible, global enterprise.

You can obtain CICS TS for z/OS V5.4 in 3 offerings:

- CICS TS for z/OS V5.4
- CICS TS for z/OS Developer Trial V5.4
- CICS TS for z/OS Value Unit Edition V5.4

Each offering consists of the CICS TS for z/OS V5.4 - base component plus an appropriate activation module.

In order to run the CICS TS for z/OS Installation Verification Program (IVP) an appropriate activation module and the base component must be installed.

### CICS TS for z/OS installation

For this release of CICS TS for z/OS you must now install two separate components, using separate Program Directories:

CICS TS for z/OS - base. This component must be installed for any of the three offerings of CICS TS for z/OS.

CICS TS for z/OS activation module. This component is specific to each offering of CICS TS for z/OS.

Information about these components and the complete installation process for CICS TS for z/OS is in "Installing" in the CICS product documentation in IBM Knowledge Center:  
<http://www.ibm.com/support/knowledgecenter/SSGMGV/welcome.html>

---

## 1.2 CICS TS for z/OS Value Unit Edition V5.4 - activation module FMIDs

CICS TS for z/OS Value Unit Edition V5.4 - activation module consists of the following FMIDs:

HCV7100

---

## 2.0 Program Materials

An IBM program is identified by a program number. The program number for CICS TS for z/OS Value Unit Edition V5.4 - activation module is 5722-DFJ.

Basic Machine-Readable Materials are materials that are supplied for the use of the product.

The program announcement material describes the features supported by CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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 17 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for CICS TS for z/OS Value Unit Edition V5.4 - activation module in the *CBPDO Memo To Users Extension*.

---

### 2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for CICS TS for z/OS Value Unit Edition V5.4 - activation module.

---

### 2.3 Program Publications

The following sections identify the basic publications for CICS TS for z/OS Value Unit Edition V5.4 - activation module.

Documentation for CICS Transaction Server for z/OS is available in IBM Knowledge Center:  
<http://www.ibm.com/support/knowledgecenter/SSGMGV/welcome.html>

---

### 2.4 Program Source Materials

No program source materials or viewable program listings are provided for CICS TS for z/OS Value Unit Edition V5.4 - activation module.

---

## 2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 1 on page 4 during the installation of CICS TS for z/OS Value Unit Edition V5.4 - activation module. In addition to the publications below, the CICS product documentation can be found in the IBM Knowledge Center:

<http://www.ibm.com/support/knowledgecenter/SSGMGV/welcome.html>

*Figure 1. Publications Useful During Installation*

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



---

## 3.0 Program Support

This section describes the IBM support available for CICS TS for z/OS Value Unit Edition V5.4 - activation module.

---

### 3.1 Program Services

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

---

### 3.2 Preventive Service Planning

Before you install CICS TS for z/OS Value Unit Edition V5.4 - activation module, 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 6.1.9, “Perform SMP/E APPLY” on page 22 for a sample APPLY command.

If you obtained CICS TS for z/OS Value Unit Edition V5.4 - activation module as part of a CBPDO, HOLDDATA is included.

If the CBPDO for CICS TS for z/OS Value Unit Edition V5.4 - activation module 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://www.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 CICS TS for z/OS Value Unit Edition V5.4 - activation module are included in Figure 2.

| <i>Figure 2. PSP Upgrade and Subset ID</i> |         |                                                              |
|--------------------------------------------|---------|--------------------------------------------------------------|
| UPGRADE                                    | SUBSET  | Description                                                  |
| CICSVU54                                   | HCV7100 | CICS TS for z/OS Value Unit Edition V5.4 - activation module |

---

### 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 3 on page 6 identifies the component IDs (COMPID) for CICS TS for z/OS Value Unit Edition V5.4 - activation module.

| <i>Figure 3. Component IDs</i> |               |                                                              |                       |
|--------------------------------|---------------|--------------------------------------------------------------|-----------------------|
| <b>FMID</b>                    | <b>COMPID</b> | <b>Component Name</b>                                        | <b>RETAIN Release</b> |
| HCV7100                        | 5722DFJ00     | CICS TS for z/OS Value Unit Edition V5.4 - activation module | 710                   |

---

## 4.0 Program and Service Level Information

This section identifies the program and relevant service levels of CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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

You can find the APARs against previous releases of CICS TS for z/OS that have been incorporated into this release by going to:

<http://www-01.ibm.com/support/docview.wss?uid=swg21223445>.

---

### 4.2 Service Level Information

Frequently check the CICS TS for z/OS Value Unit Edition V5.4 - activation module 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module.

#### 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 4. Driving System Software Requirements

| Program Number                   | Product Name       | Minimum VRM | Minimum Service Level will satisfy these APARs | Included in the shipped product? |
|----------------------------------|--------------------|-------------|------------------------------------------------|----------------------------------|
| Any <b>one</b> of the following: |                    |             |                                                |                                  |
| 5650-ZOS                         | z/OS               | V02.01.00   | N/A                                            | No                               |
| 5650-ZOS                         | z/OS               | V02.02.00   | N/A                                            | No                               |
| 5655-G44                         | IBM SMP/E for z/OS | V03.05.00   | N/A                                            | No                               |

**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 V03.05.00.

**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](http://www.ibm.com/systems/z/os/zos/support/zos_eos_dates.html).

---

## 5.2 Target System Requirements

This section describes the environment of the target system required to install and use CICS TS for z/OS Value Unit Edition V5.4 - activation module.

### 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 5. Target System Mandatory Installation Requisites |              |             |                                                |                                  |
|-----------------------------------------------------------|--------------|-------------|------------------------------------------------|----------------------------------|
| Program Number                                            | Product Name | Minimum VRM | Minimum Service Level will satisfy these APARs | Included in the shipped product? |
| Any <b>one</b> of the following:                          |              |             |                                                |                                  |
| 5650-ZOS                                                  | z/OS         | V02.01.00   | N/A                                            | No                               |
| 5650-ZOS                                                  | z/OS         | V02.02.00   | 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](http://www.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.

CICS TS for z/OS Value Unit Edition V5.4 - activation module 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. These products are specified as PREs or REQs.

| Figure 6. Target System Mandatory Operational Requisites |                                              |
|----------------------------------------------------------|----------------------------------------------|
| Program Number                                           | Product Name and Minimum VRM/Service Level   |
| 5655-Y04                                                 | CICS Transaction Server for z/OS v5.4 - base |

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.

**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.

CICS TS for z/OS Value Unit Edition V5.4 - activation module 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.

CICS TS for z/OS Value Unit Edition V5.4 - activation module has no negative requisites.

## 5.2.3 DASD Storage Requirements

CICS TS for z/OS Value Unit Edition V5.4 - activation module libraries can reside on all supported DASD types.

Figure 7 lists the total space that is required for each type of library.

| <i>Figure 7. Total DASD Space Required by CICS TS for z/OS Value Unit Edition V5.4 - activation module</i> |                                          |                                |
|------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------|
| <b>Library Type</b>                                                                                        | <b>Total Space Required in 3390 Trks</b> | <b>File System Description</b> |
| Target                                                                                                     | 30                                       |                                |
| Distribution                                                                                               | 30                                       |                                |

### 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 20.

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.

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 LNKLIST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install CICS TS for z/OS Value Unit Edition V5.4 - activation module. The storage requirements of CICS TS for z/OS Value Unit Edition V5.4 - activation module 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 8. Storage Requirements for CICS TS for z/OS Value Unit Edition V5.4 - activation module Target Libraries*

| Library<br>DDNAME | Member<br>Type | Target<br>Volume | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|----------------|------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| SDFHVINS          | SAMP           | ANY              | U                | PDS         | FB                    | 80                    | 15                        | 1                        |
| SDFHVUE           | LMOD           | ANY              | U                | PDS         | U                     | 0                     | 15                        | 1                        |

Figure 9. Storage Requirements for CICS TS for z/OS Value Unit Edition V5.4 - activation module Distribution Libraries

| Library<br>DDNAME | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| ADFHVINS          | U                | PDS         | FB                    | 80                    | 15                        | 1                        |
| ADFHVMOD          | U                | PDS         | U                     | 0                     | 15                        | 1                        |

## 5.3 FMIDs Deleted

Installing CICS TS for z/OS Value Unit Edition V5.4 - activation module 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module 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

### 5.4.1 SMP/E Considerations

CICS TS for z/OS Value Unit Edition V5.4 - activation module and one or more activation modules can be installed into the same set of SMP/E zones, including SMPCSI, target, distribution, and zFS data sets.

IBM recommends that you install CICS TS for z/OS Value Unit Edition V5.4 - activation module - base into a new set of SMP/E zones, including SMPCSI, target, distribution, and zFS data sets, to allow independent maintenance of CICS TS for z/OS Value Unit Edition V5.4 - activation module - base, z/OS, and other subsystems.

This Program Directory provides sample jobs and instructions to create such an SMP/E environment.

For users of:

- CICS REXX ( H0B5110 CICS REXX Runtime Facility,
- H0B7110 CICS REXX Development System,
- H0Z2110 CICS REXX Common for CICS/ESA),

Note. The PTF for APAR OA40674 is mandatory. This must be applied, as REXX will not work in CICS 5.3 without it.



---

## 6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of CICS TS for z/OS Value Unit Edition V5.4 - activation module.

Please note the following points:

- If you want to install CICS TS for z/OS Value Unit Edition V5.4 - activation module into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMP/CSI 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module

#### 6.1.1 SMP/E Considerations for Installing CICS TS for z/OS Value Unit Edition V5.4 - activation module

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of CICS TS for z/OS Value Unit Edition V5.4 - activation module.

All installation steps must be run from a user ID that is defined to UNIX Systems Services, and has the following attributes:

- UID(0) or READ access or higher to the BPX.SUPERUSER facility class.
- READ access or higher to the BPX.FILEATTR.PROGCTL and BPX.FILEATTR.APF and BPX.FILEATTR.SHARELIB facility classes.

#### 6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 10. 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 10. SMP/E Options Subentry Values

| Subentry              | Value          | Comment                                                         |
|-----------------------|----------------|-----------------------------------------------------------------|
| DSSPACE               | 9765,2960,1164 | The space used if SMP/E allocates the RELFILE data sets         |
| PEMAX                 | SMP/E Default  | IBM recommends using the SMP/E default for PEMAX.               |
| Binder<br>return code | 4              | IBM recommends using a minimum return code of 4 for the binder. |

### 6.1.3 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install CICS TS for z/OS Value Unit Edition V5.4 - activation module:

The sample installation jobs are sorted by name into an order in which to run them in sequence (after editing) to install CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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 11. Sample Installation Jobs

| Job Name | Job Type | Description                                                              | RELFILE        |
|----------|----------|--------------------------------------------------------------------------|----------------|
| DFHVSMPs | ZONES    | Sample job to setup SMP/E zones                                          | IBM.HCV7100.F2 |
| DFHVALOC | ALLOCATE | Sample job to allocate target and distribution libraries                 | IBM.HCV7100.F2 |
| DFHVDDEF | DDDEF    | Sample job to create DDDEF entries for Target and Distribution libraries | IBM.HCV7100.F2 |
| DFHVRECV | RECEIVE  | Sample RECEIVE job from tape                                             | IBM.HCV7100.F2 |
| DFHVRCVE | RECEIVE  | Sample RECEIVE job from DASD                                             | IBM.HCV7100.F2 |
| DFHVAPLY | APPLY    | Sample APPLY job                                                         | IBM.HCV7100.F2 |
| DFHVACPT | ACCEPT   | Sample ACCEPT job                                                        | IBM.HCV7100.F2 |

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.8, “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 11 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 statement 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.HCV7100.F2,UNIT=tunit,
//          VOL=SER=volser,LABEL=(x,SL),
//          DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.HCV7100.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,({PD_PRIMSPC},{PD_SECONDSPC},{PD_DIRSPC}))
//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.HCV7100.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.

Customize each of the sample jobs listed in Figure 11 on page 18. Each sample job contains comments with specific instructions for customization.

## 6.1.4 Run the installation Jobs

**Note:** If you wish to install into a non-SMS managed environment add the appropriate STORCLAS and VOLUME parameters accordingly to the sample JCL.

This section describes the CICS Transaction Server installation jobs, and gives considerations that may affect how you use them.

The CICS Transaction Server jobs are in the library you created as a result of copying the installation file from the distribution tape.

These jobs should be run one at a time. Before you run a job, read the information about it.

After you have run a job, check its output before proceeding to the next job. If a job terminates abnormally, find out why it failed (the job log lists the error messages produced on each run). Correct the error, and then proceed as advised in the job description. In any case, do not attempt to run the next job until the previous job has run successfully.

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

## 6.1.5 Prepare the installation environment

**6.1.5.1 Global zone:** If you are installing into an existing global zone, check that:

- The PEMAX option entry is set to 9999, or left to default.
- The DSSPACE options entry specifies at least 800 directory blocks.

If you are installing into a new global zone, edit and submit sample job DFHVSMPS to create a new SMP/E global zone for CICS TS for z/OS Value Unit Edition V5.4 - activation module. Ensure that the JOB statement is valid for your system. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** DFHVSMPS has a number of steps, all of which should complete with a return code of 0.

If any of the return codes is not 0, inspect the job output to determine what caused the problem and correct it, then rerun the job from the step that failed.

## 6.1.6 Allocate SMP/E Target and Distribution Libraries

If you need to create new target and distribution zones for CICS TS for z/OS Value Unit Edition V5.4 - activation module, edit and submit the following sample job DFHVALOC.

Ensure that the JOB statement is valid for your system. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** The jobs consist of a number of steps, all of which should complete with a return code of 0.

If any of the return codes is not 0, inspect the job output to determine what caused the problem, correct it, and then rerun the job from the step that failed.



## 6.1.7 Create DDDEF Entries

Edit and submit sample job DFHVDDEF to create DDDEF entries for the SMP/E target and distribution data sets and directories for CICS TS for z/OS Value Unit Edition V5.4 - activation module. Make sure the call library DDDEFs point to the corresponding data sets for your z/OS target system. Consult the instructions in the sample job for more information.

Check the job output to verify that all directories have been created.

### Before you run the DFHDDDEF job

- If you have a DB2 SDSNLOAD library on your system, replace @DSNLOAD@ with the dataset name.
- If you do not have DB2 on your system, replace @DSNLOAD@ with the name of the SDFHLOAD dataset for this install, which contains a DB2 stub.

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

## 6.1.8 Perform SMP/E RECEIVE

If installing from the download site, use the DFHVRCVE job instead of the DFHVRECV job.

### 6.1.8.1 The DFHVRECV Job:

It is the only installation job (apart from the initial IEBCOPY job) that requires the distribution tape to be mounted.

If the DFHVRECV job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHVRECV.

**Expected Return Codes and Messages:0**

### 6.1.8.2 The DFHVRCVE Job:

This job RECEIVES the CICS Transaction Server software from DASD into the global zone.

If the DFHVRCVE job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHVRCVE.

**Expected Return Codes and Messages:0**

If you have obtained CICS TS for z/OS Value Unit Edition V5.4 - activation module as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the CICS TS for z/OS Value Unit Edition V5.4 - activation module FMIDs, service, and HOLDDATA that are included on the CBPDO package. For more information, see the documentation that is included in the CBPDO.

## 6.1.9 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job DFHVAPLY to perform an SMP/E APPLY CHECK for CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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 HOLDDs 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.

#### Please Note

If you are using GROUPEXTEND in the APPLY any maintenance(PTFs) that include HOLDDATA may cause a return code other than 0.

## 6.1.10 Perform SMP/E ACCEPT

Edit and submit sample job DFHVACPT to perform an SMP/E ACCEPT CHECK for CICS TS for z/OS Value Unit Edition V5.4 - activation module. 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.

## 6.1.11 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 CICS TS for z/OS Value Unit Edition V5.4 - activation module, 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.

---

## 6.2 Product Customization

The publication *CICS TS for z/OS for z/OS Installation Guide* (GC34-7414-00) contains the necessary information to customize and use CICS TS for z/OS Value Unit Edition V5.4 - activation module

---

## 7.0 Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

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".

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, New York 10504-1785  
USA

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan, Ltd.  
19-21, Nihonbashi-Hakozakicho, Chuo-ku  
Tokyo 103-8510, Japan

---

## 7.1 Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

UNIX is a registered trademark of The Open Group in the United States and other countries.









---

## Reader's Comments

**Program Directory for CICS Transaction Server for z/OS Value Unit Edition V5.4 - activation module, June 2017**

We appreciate your input on this publication. Feel free to comment on the clarity, accuracy, and completeness of the information or give us any other feedback that you might have.

Use one of the following methods to send us your comments:

1. Send an email to [ibmkc@us.ibm.com](mailto:ibmkc@us.ibm.com)
2. Use the form on the Web at:

[www.ibm.com/software/data/rcf/](http://www.ibm.com/software/data/rcf/)

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

Include the following information:

- Your name and address
- Your email address
- Your telephone or fax number
- The publication title and order number
- The topic and page number related to your comment
- The text of your comment

IBM or any other organizations will only use the personal information that you supply to contact you about the issues that you submit.

Thank you for your participation.



Printed in USA

GI13-4403-00

