



IBM Software Group

CICS Transaction Server for z/OS V4.1

Installing Version 4.1



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This presentation provides information about CICS® Transaction Server for z/OS® Version 4.1 installation procedures.

Agenda

- Elements
- Software prerequisites
- Installing the product
- Documentation
- Summary



This module discusses what you receive when you order the product, the installation prerequisites, the components that are installed, and the changes to the installation procedures from previous releases.

CICS Transaction Server V4.1 elements

- CICS Transaction Server V4.1
- CICSplex® SM V4.1
- Service Flow Runtime
- CICS Explorer™
 - ▶ Available from a download site. See <http://www.ibm.com/cics/explorer/> for details
- REXX
 - ▶ Development System
 - ▶ Runtime Facility
 - ▶ REXX Common for z/OS
- CICS information center
- Rational® Developer for System z® promotion
 - ▶ One unrestricted entitlement, no service entitlement
 - ▶ Integrated development environment for CICS and WebSphere®

- CICS Application Migration Aid V1.1 is no longer provided



CICS Transaction Server for z/OS Version 4.1 has several elements that you receive along with the base CICS Transaction Server Version 4.1 and CICSplex SM Version 4.1, when you order the product. CICS Transaction Server Version 4.1 includes CICS Service Flow Runtime, previously only available as a separately orderable feature. You can use CICS Service Flow Runtime to deploy CICS business services, or service flows, that are created by the Service Flow Modeler component of IBM Rational Developer for System z. The service flow runtime capability of CICS Transaction Server Version 4.1 is fully compatible with IBM CICS Service Flow Feature Version 3.2.

Now that CICS Transaction Server Version 4.1 is generally available, you can download and use a fully featured and supported version of the IBM CICS Explorer for CICS Transaction Server Version 4.1. A version of the CICS Explorer for CICS Transaction Server Version 3 customers also available as a no-charge optional feature. Further information about the CICS Explorer and how to download it can be found on the CICS Explorer Web site.

Other elements of CICS Transaction Server Version 4.1, that were previously available as separate IBM products, are CICS REXX Runtime Facility, CICS REXX Development System, and CICS REXX Common for z/OS.

CICS Transaction Server V4.1 also includes a media pack with a trial license for IBM Rational Developer for System z. Rational Developer for System z is not part of CICS and is not required to use CICS. However, it does provide several productivity enhancing tools for developers and system programmers, including complete integration with the CICS Explorer. Rational Developer for System z is a workstation based integrated development environment that helps developers create dynamic Web, Web 2.0, and traditional CICS applications. It includes support for Java™ Enterprise Edition (also known as JEE), XML, and Web services technologies that can integrate Rational and WebSphere software, in addition to traditional transactional environments, including CICS, IMS, and batch systems.

CICS Application Migration Aid V1.1 is no longer provided as an element of CICS.

Software prerequisites

- z/OS V1.9, or later
 - ▶ The product will not initialize with a lower level of the operating system
 - ▶ You must apply APARs to z/OS 1.9 and WebSphere MQ for z/OS 6.0
- IBM XML Toolkit V1.10 for z/OS is not required for installation
 - ▶ Required at runtime when using WS-Security
 - ▶ Receive DFHPI0119 if not present at runtime
- IBM SDK for z/OS, Java Technology Edition, V6, Service Refresh 4
 - ▶ No support for 64-bit SDK
 - ▶ Available from <http://www.ibm.com/servers/eserver/zseries/software/java/>
- IBM XML Toolkit and SDK NOT shipped with CICS

You must use IBM z/OS Version 1.9, or later. CICS Transaction Server Version 4.1 will not initialize in an environment where a lower level of the operating system is installed. If you are running IBM z/OS Version 1.9, you must have the PTF for APAR OA19565 installed. In addition, ensure that the OA20352, PK45354, OA20343, and OA19958 APARs are applied. If you plan to use CICS Transaction Server Version 4.1 with WebSphere MQ for z/OS V6.0, you must install APARs PK38772 and PK42616.

The IBM XML Toolkit is no longer required to install CICS. You must install Version 1.10 of the toolkit if you plan to use Web services security. If you try to use Web services security and the toolkit is not present, you will receive message DFHPI0119.

The IBM SDK for z/OS, Java Technology Edition, Version 6, Service Refresh 4 is required if you want to use Java application programs, enterprise beans, or the CICS XML and Web services assistants. The IBM SDK for z/OS is available, without charge, on tape or by download from the IBM Web site.

The IBM 64-bit SDK for z/OS, Java 2 Technology Edition Version 1.4 is not supported. Also, IBM 31-bit SDK for z/OS, Java 2 Technology Edition, Version 5 is not supported. The IBM XML Toolkit and the SDK are not shipped with CICS Transaction Server.

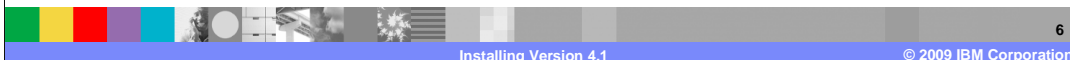
Interoperating with other products

- CICS Tools
 - ▶ CICS Performance Analyzer Version 3.1
 - ▶ CICS Interdependency Analyzer Version 2.2 + PTF
 - ▶ CICS Configuration Manager Version 1.2 + PTF or Version 2.1
- IMS database Manager Version 9 or later
- DB2® Version 8 or later
- WebSphere MQ Version 6 or later
- WebSphere Application Server Version 6.0 or later
- WebSphere Business Events Version 6.1.01 or later
- WebSphere Business Monitor Version 6.1 or later
- Tivoli® Federated Identify Manager Version 6.1 or later
- CICS Transaction Gateway for z/OS Version 6.0 or later
- CICS Transaction Gateway for Multiplatforms Version 6.0 or later
- CICS Universal Client Version 6.0 or later

This lists the tools that interoperate with CICS Transaction Server V4.1. If you are using one of the CICS tools, you might need to apply a PTF to the tool for it to work with CICS Transaction Server Version 4.1. Check the details system requirements for CICS Transaction Server Version 4.1 for details.

Installation methods

- ServerPac installation
 - ▶ Series of tapes containing a complete generated CICS system.
 - ▶ A CustomPac dialog that produces jobs that unload tape to storage
 - ▶ Sample jobs to help you install CICS and service
- CBPDO, using SMP/E commands
 - ▶ One logically stacked SMP/E RELFILE tape that contains all base elements
 - ▶ Sample jobs to help you install CICS and service
- CBPDO, using the DFHISTAR process



You can select from three entitled offerings to install CICS Transaction Server Version V4.1. You can use a system replacement method called ServerPac or you can use the Custom-Build Product Delivery Option (also known as CBPDO).

If you order the ServerPac, you receive a series of tapes that contain a complete generated CICS system. You also receive a CustomPac dialog that creates jobs to unload the product from the tapes to disk. The ServerPac provides a tape with related-installation material files (also known as RIM files) to help you plan and complete the installation process. You should download and print these RIM files to guide you through the installation process. The ServerPac also includes sample jobs to help you install CICS and apply any service.

If you order the CBPDO, you receive one logically stacked SMP/E RELFILE tape that contains all the base elements of CICS Transaction Server. You also receive some sample jobs to help you install the product and apply service. You can either use the standard SMP/E RECEIVE, APPLY, and ACCEPT commands or you can use the DFHISTAR process to install the product.

The DFHISTAR process provides default qualifiers for the data sets into which you install CICS. You can customize the DFHISTAR job to assign values to the installation parameters of your environment.

Before you begin to install the product using CBPDO, you are recommended to read certain documentation to plan the installation. The CBPDO *Memo to Users Extension* contains information about the CBPDO you ordered and the features and service it includes. It also contains CBPDO installation information. Read the *Memo to Users Extension* thoroughly before starting any of the installation tasks. If you are a new user of CBPDO, you must also read the IBM publication, *MVS Custom-Built Offerings Planning and Installation*, SC23-0352. For details on these installation methods, see the Installing -> Planning for Installation section of the CICS Transaction Server Version 4.1 information center.

Installing CICSplex SM

- CICSplex SM integrated into the standard installation process
 - ▶ No separate installation job stream
 - SEYUINST integrated with SDFHINST
 - SEYUJCL starter set library removed
 - EYUINST integrated with DFHINST
 - EYUISTAR integrated with DFHISTAR
 - ▶ EYUCMSDS and EYU9XDUT
 - Enhanced CICSplex SM Data repository setup
 - ▶ Checklist and worksheets to plan CICSplex SM installation

The installation of CICSplex SM was integrated with the installation of CICS in CICS Transaction Server Version 3.2. The FMID has a prefix of 'J' which, in SMP/E terms, means that it requires a product FMID, or FMID prefixed by an 'H' in order to install it. For the CICSplex SM Version 4.1 element, the base CICS Transaction Server 4.1 FMID is required.

There is no separate installation job stream. The SEYUINST job has merged into SDFHINST and the SEYUJCL data set has been removed. Job EYUINST has merged into DFHINST and job EYUISTAR has merged into DFHISTAR. This integration makes the installation and configuration of CICSplex SM easier. You can now edit the DFHISTAR job to modify the CICS and CICSplex SM installation parameters for your environment. DFHISTAR creates JCL for both CICS and CICSplex SM elements. For example, DFHISTAR generates the EYUCMSDS and EYU9XDUT jobs. Run EYUCMSDS to create the data repository data set and run EYU9XDUT to upgrade the data repository to the current release of CICSplex SM. A set of worksheets and a checklist are available in the information center that you can print and fill out to help plan your CICSplex SM installation.

DFHISTAR minimum parameters for CICSplex SM

- Lib: Specifies library name. Default is CICSTS41.XDFHINST
- SCOPE: POST
- TCPIPHST: Address of host server
- TCPIPPRT: Port used by WUI server
- TIMEZONE: Time zone used for data repository

You can use DFHISTAR to specify your CICSplex SM installation parameters. EYUISTAR is no longer available as a job to modify CICSplex SM installation parameters. DFHISTAR includes some parameters specific to CICSplex SM, some parameters specific to CICS, and some parameters that are common to CICS and CICSplex SM. The parameters listed here are the minimum set that you must specify for CICSplex SM. For details of what values to specify for these parameters, see the “Specifying attributes specific to CICSplex SM” topic in the CICS Transaction Server Version 4.1 information center.

Setting up the MVS environment

- Full set of tasks documented in the information center
- CICS uses z/OS conversion services. You must enable this conversion facility
 - Documented in “z/OS Support for Unicode Using Conversion Services”
- For 64-bit exploitation, set MEMLIMIT to 2 GB or higher

When you have completed the installation from ServerPac or CBPDO, you must complete the postinstallation tasks. These tasks are fully documented in the Installing > Setting up the MVS environment section of the CICS Transaction Server Version 4.1 information center.

For Unicode conversion support, you must enable the z/OS conversion services and install a conversion image that specifies the conversions that you want CICS to perform. Refer to the instructions in the *z/OS Support for Unicode: Using Conversion Services* manual to find out the steps needed to set up and configure conversions supported through the operating system services.

To use storage above the 2 GB boundary (that is, above the bar) when upgrading to CICS Transaction Server for z/OS Version 4.1, you must set your MEMLIMIT value equal to or greater than 2 GB.

The MEMLIMIT value can be set using any of several methods. You can set the MEMLIMIT parameter to either a specific value in JCL or as NOLIMIT if REGION=0M is specified. Alternatively, you can set a MEMLIMIT value in the SYS1.PARMLIB library SMFPRMxx or you can use the IEFUSI z/OS global user exit.

System usage and workload remain the same as before you altered the MEMLIMIT value. You cannot alter the MEMLIMIT value on a running system. If the MEMLIMIT value is lower than 2 GB, but higher than EDSALIM, a warning message displays. If the MEMLIMIT value is lower than the EDSALIM value, an error message displays and CICS does not start.

Getting ready to run CICS

- Full set of tasks documented in the information center
- Create the CICS data sets
- Add support for programming languages
- Verify Java components installed correctly
- Set up a CMAS, MAS, and WUI server



After you have installed CICS and set up the MVS environment, you can perform the final set of tasks before starting up a CICS region. A full set of tasks are documented in the Installing > Getting ready to run CICS section of the CICS Transaction Server Version 4.1 information center.

You can run several jobs to create the CICS data sets. These data sets are required to run the installation verification procedures. You can also perform additional tasks such as adding support for programming languages, verifying the Java components installation, and setting up a CMAS, MAS, or WUI server. When you have performed all the tasks that are appropriate for your environment, you can run the installation verification procedures to check that the product is correctly installed.

Installation verification procedures

- CICS has two installation verification procedures
 - ▶ DFHIVPBT, verify by batch
 - ▶ DFHIVPOL, verify online
- Procedures for interoperability tests with other products
- CICSplex SM uses samples customized by DFHISTAR
 - ▶ Create a simple configuration of one CMAS, one WUI server, and one MAS



CICS has two installation verification procedures, DFHIVPBT and DFHIVPOL. Both procedures start CICS. DFHIVPOL requires more configuration to test by running transactions and creating resources in the running CICS region. Procedures to test interoperability with other products, such as IMS and DB2, are described in detail in the Installing > Verifying the CICS installation section of the CICS Transaction Server Version 4.1 information center.

The CICSplex SM installation verification procedure is generated by DFHISTAR. DFHISTAR customizes post-installation members, so that you can create a simple CICSplex System Manager configuration. The post-installation members are listed according to area. There are members for a CICSplex SM address space (CMAS), a Web User Interface (WUI), and a CICS managed application system (MAS). When you run DFHISTAR, the post-installation members are customized and saved in the XDFHINST library.

Documentation

- CBPDO and ServerPac manuals
- Program Directory
- Installation Guide
- Upgrading guides
- Installing CICSplex SM WUI scenario – learning path

<https://publib.boulder.ibm.com/infocenter/cicsts/v4r1/index.jsp>



All entitled offerings provide specific documentation to help you install CICS Transaction Server successfully. It is important that you read this documentation before you begin to install the product. The *Program Directory* is included as a hard copy publication with the product and details of the hardware requirements, the contents of the distribution tapes, and steps to get started with the SMP/E installation. The *CICS Installation Guide* follows on from the *Program Directory*, providing additional planning and installing tasks, in particular using DFHISTAR and running the installation verification procedures. The installing information is available in the information center in both HTML and PDF format. The Upgrading guides provide a summary of all the changes to the external interfaces between the release you are moving from and CICS Transaction Server Version 4.1. The section on “Changes to installation procedures” is of particular interest.

The information center also contains a learning path that starts where the installation verification procedure finishes and shows how to configure a more complex system using the EYU9XDBT utility.

Summary

- Read documentation before installation
- Previously created installation jobs might not work as expected, if at all
- Use the IVPs to check your installation



Before you install CICS Transaction Server, read all the documentation that is provided. If you created your own installation jobs for installing previous releases of CICS, these jobs might not work as expected, if at all. Use the CICS and CICSplex SM installation verification procedures to check that your installation is working correctly.

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