



Licensed Program Specifications

z/OS Version 2 Release 4 Product number 5650-ZOS

z/OS® is an advanced-technology, enterprise-wide server operating system. For a list of z/OS base elements and optional features, see [z/OS elements and features \(www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0za100/elemfeat.htm\)](http://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0za100/elemfeat.htm).

Note: Most topics and deliverables that are referenced in this LPS document reside in [IBM Knowledge Center \(www.ibm.com/support/knowledgecenter/SSLTBW/welcome\)](http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome).

Specified Operating Environment

Machine Requirements

z/OS Version 2 Release 4 requires z/Architecture® (64-bit) and runs on the following IBM processors:

- IBM z15
- IBM z14
- IBM z13®
- IBM z13s
- IBM zEnterprise® EC12 (zEC12)
- IBM zEnterprise BC12 (zBC12)

For requirements about hardware and minimum storage, see [Identifying hardware requirements for the target system \(www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/ihrftts.htm\)](http://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/ihrftts.htm). For requirements about specific elements, see [Additional hardware requirements for running z/OS V2R4 \(www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/hdwreqs.htm\)](http://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/hdwreqs.htm).

Programming Requirements

For z/OS, most of the software requirements of a specific element are satisfied by other elements in z/OS. However, some elements have optional functions with software dependencies beyond z/OS. These features are worldwide exportable but subject to export tracking regulations.

For more requirements of specific elements and information about specific release service levels of other IBM products that run with z/OS, see [Software requirements for running z/OS V2R4 \(www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/pgmreqs.htm\)](http://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zb100/pgmreqs.htm).

Licensed Program Materials Availability

Restricted materials - Yes.

This licensed program is available with source licensed program materials for some modules that are designated as "RESTRICTED MATERIALS OF IBM." The remaining licensed programming materials are available and are not designated as "RESTRICTED MATERIALS OF IBM."

All New Function delivered through D-Type APARs is considered part of the "Program" with which it is associated. Its use is subject

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Supplemental Terms

Designated Machine Identification

Designated Machine Identification Required - Yes.

Program Features Not Used on the Designated Machine

Some of the elements and optional features in z/OS have components that are designed for use on machines other than the Designated Machine on which z/OS is used. You can make copies of a component and corresponding documentation in support of your authorized use of z/OS. Persons that use a machine outside of your enterprise can use the copy only to access your copy of z/OS licensed hereunder.

Location License

Not applicable.

A separate license is required for each machine on which the licensed program materials are used.

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Charges for this program are eligible for a pricing method referred to as Subcapacity Pricing, subject to the applicable terms. For information about Subcapacity Pricing, see *z/OS Planning for Sub-Capacity Pricing*.

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automation with IBM Health Checker for z/OS (www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zl100/aut.htm), each of which is incorporated by reference into this Licensed Program Specification and your IBM license to the Program.

The Integrated Cryptographic Service Facility (ICSF) component includes VISA Format Preserving Encryption (VFPE) technology, which forms part of Visa Inc.'s Data Secure Platform (DSP). The use of this function requires a service agreement with Visa Inc. You must maintain a valid, binding, and enforceable service agreement with Visa when you use DSP/FPE. For more information, contact your Visa Account Manager or inquire at P2PE@visa.com.

Software Cryptographic Service Providers

Portions of the IBM Weak Software Cryptographic Service Provider and the IBM Software Cryptographic Service Provider in the z/OS Security Level 3 feature contain software code that is provided by RSA Data Security, Inc.

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Before marketing, selling, or distributing applications that were developed with the RSA API, you must first obtain a license from RSA for that purpose.

Note: Other methods of creating certificates that use cryptographic service providers that are provided by IBM do not carry these restrictions.

Cryptographic Services Open Cryptographic Services Facility

Any application that you create, export, or reexport from the US with the Open Cryptographic Services Facility Cryptographic Services or System SSL Services might be subject to special export licensing requirements by the Bureau of Export Administration of the US Department of Commerce.

Integrated Cryptographic Service Facility

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You are only authorized to use VFPE that is contained in the Product for payment purposes, and Customer agrees to restrict the use of such implementation to such payment purposes. You may not use VFPE for any non-Data Secure Platform (DSP) activities.

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- Contact: Shahzad Khan (415) 805-4232
- Address: P.O. Box 8999, San Francisco, CA 94128 USA
- Website: [VISA \(www.visa.com\)](http://www.visa.com)

Type/Duration of Program Services

Program Services, including the IBM Support Center, are available until discontinued by IBM upon 12 months written notice.

Authorization for Copy and Use on Home/Portable Computer

Not Applicable for this Program.

Documentation

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This document includes information about certain callable service stub and linkage-assist (stub) routines and other routines that are contained in specific data sets and file system directories that are intended to be bound, link-edited, or otherwise included with code and run on z/OS systems. With your authorized use of z/OS, you can include these routines into your modules and distribute your modules with the included routines for the purposes of developing, using, marketing, and distributing programs that conform to the documented programming interfaces for z/OS, provided that each routine is included in its entirety, including any IBM copyright statements. These routines were not thoroughly tested under all conditions. Therefore, IBM cannot guarantee or imply the reliability, serviceability, or function of these programs.

The referenced routines are contained in the following data sets and in z/OS UNIX System Services files.

- CBC.SCCNOBJ
- CBC.SCCNM10
- CBC.SCCNM11
- CBC.SCCNM12
- CBC.SCCNN10
- CBC.SCCNN11
- CBC.SCCNN12
- CBC.SCLBCPP
- The MASS library files in the /usr/lpp/cbclib/lib directory.
- The ATLAS library files in the /usr/lpp/cbclib/lib/atlas directory.
- CEE.SAFHFORT
- CEE.SCEEBIND
- CEE.SCEEBND2
- CEE.SCEECPP
- CEE.SCEELKED
- CEE.SCEELKEX
- CEE.SCEE OBJ
- CEE.SCEESPC
- CEE.SIBMAM24
- CEE.SIBM CALL
- CEE.SIBM CAL2
- CEE.SIBM MATH
- CEE.SIBM TASK
- CSF.SCSFSTUB
- SYS1.CSSLIB
- SYS1.SCCR3BND
- SYS1.SCCR6BND
- TCPIP.SEZACMTX
- TCPIP.SEZADPIL
- TCPIP.SEZALIBN
- TCPIP.SEZAOLDX
- TCPIP.SEZARNT1
- TCPIP.SEZARNT2
- TCPIP.SEZARNT3
- TCPIP.SEZARNT4
- TCPIP.SEZARPCL
- TCPIP.SEZAXAWL
- TCPIP.SEZAXMLB
- TCPIP.SEZAXTLB
- TCPIP.SEZAX11L
- TCPIP.SEZAROE3

- TCPIP.SEZAROE1
- TCPIP.SEZAROE2
- The libzz.a file in the /usr/lpp/hzc/lib/ directory.
- The zconf.h, zlib.h, and zlibz.h files in the /usr/lpp/hzc/include/ directory.
- The aopapi.h file in the /usr/lpp/Printsrv/samples directory.
- The libaopapi.a file in the /usr/lpp/Printsrv/lib directory.

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z/OS is licensed as a multi-product package and includes the following identified Supporting Programs.

- IBM WebSphere® Application Server for z/OS

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