



**Program Directory for  
IBM Security zSecure Suite: CARLa-driven components**

V2.5.0

Program Number 5655-N16/N17/N20/N21/AD8

FMIDs HCKR250, HC4R250

for Use with  
z/OS

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**Note**

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

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## Release information

The Security zSecure Release Information topics include details on new features and enhancements, incompatibility warnings, and documentation update information for your Security zSecure product. You can review the most current version of the release information from the following links:

- What's new: New feature and enhancements in zSecure 2.5.0.  
[http://www.ibm.com/support/knowledgecenter/SS2RWS\\_2.5.0/com.ibm.zsecure.doc\\_2.5.0/about\\_this\\_release/about\\_rel\\_whats\\_new.html](http://www.ibm.com/support/knowledgecenter/SS2RWS_2.5.0/com.ibm.zsecure.doc_2.5.0/about_this_release/about_rel_whats_new.html)
- Release notes: Information you need before installing zSecure 2.5.0, such as system requirements, incompatibility warnings, and known problems.  
[http://www.ibm.com/support/knowledgecenter/SS2RWS\\_2.5.0/com.ibm.zsecure.doc\\_2.5.0/about\\_this\\_release/releaseinfo\\_relnotes.html](http://www.ibm.com/support/knowledgecenter/SS2RWS_2.5.0/com.ibm.zsecure.doc_2.5.0/about_this_release/releaseinfo_relnotes.html)



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## 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 Security zSecure Suite: CARLa driven components. This publication refers to IBM Security zSecure Suite: CARLa driven components as zSecure.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for zSecure.
- 3.0, “Program Support” on page 6 describes the IBM support available for zSecure.
- 4.0, “Program and Service Level Information” on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into zSecure.
- 5.0, “Installation Requirements and Considerations” on page 10 identifies the resources and considerations that are required for installing and using zSecure.
- 6.0, “Installation Instructions” on page 17 provides detailed installation instructions for zSecure. It also describes the procedures for activating the functions of zSecure, or refers to appropriate publications.

Before installing zSecure, 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 6 tells you how to find any updates to the information and procedures in this program directory.

zSecure is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). All service and HOLDDATA for zSecure are included on the CBPDO.

Do not use this program directory if you install zSecure 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.

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### 1.1 zSecure Description

IBM Security zSecure Admin puts a user-friendly layer in the form of an ISPF interface over RACF and extends the functionality. IBM Security zSecure Admin allows you to enter and process administrative commands quicker, generate custom reports and thoroughly clean-up databases. Additionally it provides administrative authority in a more granular fashion so people only get that specific amount of administrative authority they need for their job.

IBM Security zSecure Admin includes a component called RACF-Offline which adds the ability to issue most RACF commands against an inactive RACF database. Installation information for the RACF-Offline component can be found in publication number G113-2278, Program Directory for IBM Security zSecure

Admin RACF-Offline which is distributed with the IBM Security zSecure Suite: CARLa driven components materials.

IBM Security zSecure Audit looks across your various mainframe systems, measuring and auditing status and events. The technology provides standard and customized reports that warn of policy exceptions or violations that indicate a security breach or weakness. IBM Security zSecure Audit is available for RACF, ACF2, and Top Secret.

IBM Security zSecure Visual is a Windows-based graphical user interface for RACF administration. Visual establishes a secure connection directly with RACF to enable decentralized administration from a Windows environment.

IBM Security zSecure Alert is a real-time monitor for z/OS systems protected with RACF or ACF2 that issues alerts for important events relevant for the security of the system at the time they occur.

IBM Security zSecure Adapters for SIEM is the component that extracts relevant information from the mainframe to feed into Security Information and Event Management (SIEM) solutions. It provides a feed for IBM Security QRadar SIEM out of the box. The Adapters product also ships with the System Data Engine component.

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## 1.2 zSecure FMIDs

zSecure consists of the following FMIDs:

<b>Product/Feature</b>	<b>FMID(s)</b>
zSecure Admin	HCKR250, HC4R250, JCKR25R, HB8R25F
zSecure Audit for RACF	HCKR250, HC4R250, JCKA25R
zSecure Audit for ACF2	HCKR250, HC4R250, JC2A250, JC2A25A
zSecure Audit for Top Secret	HCKR250, HC4R250, JCKT25T
zSecure Alert for RACF	HCKR250, HC4R250, JC2P25R
zSecure Alert for ACF2	HCKR250, HC4R250, JC2A250, JC2P25A
zSecure Visual	HCKR250, HC4R250, JC2R25R
zSecure Adapters for SIEM - RACF feature	HCKR250, HC4R250, JCKQ25R
zSecure Adapters for SIEM - ACF2 feature	HCKR250, HC4R250, JC2A250, JCKQ25A
zSecure Adapters for SIEM - Top Secret feature	HCKR250, HC4R250, JCKQ25T



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## 2.0 Program Materials

An IBM program is identified by a program number.  
The program number for zSecure Admin is 5655-N16.  
The program number for zSecure Audit is 5655-N17.  
The program number for zSecure Visual is 5655-N20.  
The program number for zSecure Alert is 5655-N21.  
The program number for zSecure Adapters for SIEM is 5655-AD8.

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 zSecure. Ask your IBM representative for this information if you have not already received a copy.

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### 2.1 Basic Machine-Readable Material

The distribution medium for this program is physical media or downloadable files, or, for the Visual Client, a CD (number LCD7-6522). 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 zSecure in the *CBPDO Memo To Users Extension*.

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### 2.2 Program Publications

The following sections identify the basic publications for zSecure 2.5.0.

Figure 1 identifies the basic licensed program publications for zSecure 2.5.0, which are available to licensed clients only.

<b>Publication Title</b>	<b>Form Number</b>
IBM Security zSecure Admin and Audit for RACF User Reference Manual	LC27-5639
IBM Security zSecure Audit for ACF2 User Reference Manual	LC27-5640
IBM Security zSecure Audit for Top Secret User Reference Manual Version	LC27-5641
IBM Security zSecure CARLa Command Reference	LC27-6533

Figure 2 on page 4 identifies the basic unlicensed publications for zSecure 2.5.0. Those that are in softcopy format publications can be obtained from the IBM Publications Center website at <https://www.ibm.com/resources/publications>

<i>Figure 2. Basic Material: Unlicensed Publications</i>	
<b>Publication Title</b>	<b>Form Number</b>
IBM Security zSecure Suite: CARLa driven components, Installation and Deployment Guide Version	SC27-5638
IBM Security zSecure Visual Client Manual Version	SC27-5647
IBM Security zSecure Alert User Reference Manual Version	SC27-5642
IBM Security zSecure Audit for ACF2 Getting Started Guide Version	GI13-2325
IBM Security zSecure Suite: Admin and Audit for RACF Getting Started Guide Version	GI13-2324
IBM Security zSecure Admin and Audit for RACF line commands and primary commands summary Version	SC27-6581
IBM Security zSecure Suite: Messages Guide Version	SC27-5643

These publications are available at the IBM Knowledge Center at [https://www.ibm.com/support/knowledgecenter/SS2RWS\\_2.5.0/com.ibm.zsecure.doc\\_2.5.0/welcome.html?pos=2](https://www.ibm.com/support/knowledgecenter/SS2RWS_2.5.0/com.ibm.zsecure.doc_2.5.0/welcome.html?pos=2)

This information includes a list of all the unlicensed and licensed documentation; see About This Release, topic "zSecure Documentation".

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## 2.3 Program Source Materials

No program source materials or viewable program listings are provided for zSecure.

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## 2.4 Publications Useful During Installation

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

<i>Figure 3. Publications Useful During Installation</i>	
<b>Publication Title</b>	<b>Form Number</b>
<i>IBM SMP/E for z/OS User's Guide</i>	SA23-2277
<i>IBM SMP/E for z/OS Commands</i>	SA23-2275
<i>IBM SMP/E for z/OS Reference</i>	SA23-2276
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA32-0883

**Note:** IBM Publications Center <https://www.ibm.com/resources/publications>  
IBM Knowledge Center <https://www.ibm.com/support/knowledgecenter>

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## 3.0 Program Support

This section describes the IBM support available for zSecure.

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### 3.1 Program Services

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

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### 3.2 Preventive Service Planning

Before you install zSecure, 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-REQUIRESERVICE fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.PRODUCTINSTALL-REQUIRESERVICE)** operand on the **APPLY CHECK** command. See 6.1.9, “Perform SMP/E APPLY” on page 21 for a sample APPLY command.

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

If the CBPDO for zSecure 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://www.ibm.com/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for zSecure are included in Figure 4.

UPGRADE	SUBSET	Description
SECZSCADM250	HCKR250	Security zSecure Base
SECZSCCMD250	HC4R250	Security zSecure Command Verifier base
SECZSCAUD250	JCKA25R	Security zSecure Audit for RACF
SECZSCADM250	JCKR25R	Security zSecure Admin
SECZSCAUD250	JCKT25T	Security zSecure Audit for Top Secret

Figure 4 (Page 2 of 2). PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
SECZSCAUD250	JC2A25A	Security zSecure Audit for ACF2
SECZSCAUD250	JC2A250	Security zSecure Audit for ACF2 Base
SECZSCQRS250	JCKQ25A	IBM Security zSecure Adapters for SIEM - ACF2 feature
SECZSCQRS250	JCKQ25R	IBM Security zSecure Adapters for SIEM - RACF feature
SECZSCQRS250	JCKQ25T	IBM Security zSecure Adapters for SIEM - Top Secret feature
SECZSCALT250	JC2P25A	Security zSecure Alert for ACF2
SECZSCALT250	JC2P25R	Security zSecure Alert for RACF
SECZSCVIS250	JC2R25R	Security zSecure Visual

### 3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 5 identifies the component IDs (COMPID) for zSecure.

Figure 5 (Page 1 of 2). Component IDs

FMID	COMPID	Component Name	RETAIN Release
HCKR250	5655T0100	Security zSecure Base	250
HC4R250	5655T0700	Security zSecure Command Verifier base	250
JCKA25R	5655T0200	Security zSecure Audit for RACF	25R
JCKR25R	5655T0100	Security zSecure Admin	25R
JCKT25T	5655T0200	Security zSecure Audit for Top Secret	25T
JC2A25A	5655T0200	Security zSecure Audit for ACF2	25A
JC2A250	5655T0200	Security zSecure Audit for ACF2 Base	250
JCKQ25A	5655AD800	IBM Security zSecure Adapters for SIEM - ACF2 feature	25A
JCKQ25R	5655AD800	IBM Security zSecure Adapters for SIEM - RACF feature	25R
JCKQ25T	5655AD800	IBM Security zSecure Adapters for SIEM - Top Secret feature	25T
JC2P25A	5655T1100	Security zSecure Alert for ACF2	25A
JC2P25R	5655T1100	Security zSecure Alert for RACF	25R

*Figure 5 (Page 2 of 2). Component IDs*

<b>FMID</b>	<b>COMPID</b>	<b>Component Name</b>	<b>RETAIN Release</b>
JC2R25R	5655T0900	Security zSecure Visual	25R

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## 4.0 Program and Service Level Information

This section identifies the program and relevant service levels of zSecure. 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.

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### 4.1 Program Level Information

No APARs have been incorporated into zSecure.

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### 4.2 Service Level Information

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

Frequently check the zSecure 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-REQUIRESERVICE)** operand on your **APPLY CHECK** command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

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## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating zSecure. 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.

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### 5.1 Driving System Requirements

This section describes the environment of the driving system required to install zSecure.

#### 5.1.1 Machine Requirements

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

#### 5.1.2 Programming Requirements



Figure 6. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	V02.03.00	N/A	No

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

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

## 5.2 Target System Requirements

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

zSecure installs in the z/OS (Z038) SREL.

### 5.2.1 Machine Requirements

Target system minimum hardware level is Z196 for 31 bit version (CKR4Z196) and Z12 for 64 bit version (CKR8Z12)

### 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 7. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	02.03.00	N/A	No

**Note:** Installation might require migration to new releases to be service supported. See <https://www.ibm.com/support/lifecycle/>

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.

zSecure has no conditional installation requisites.

### 5.2.2.2 Operational Requisites

Operational requisites are products that are required and *must* be present on the system or products that are not required but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions.

Figure 8. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5650-ZOS	z/OS Version V02.03.00 or higher

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.

zSecure has no conditional operational requisites.

### 5.2.2.3 Toleration/Coexistence Requisites

Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

zSecure 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.

zSecure has no negative requisites.

## 5.2.3 DASD Storage Requirements

zSecure libraries can reside on all supported DASD types.

Figure 9 on page 13 lists the total space that is required for each type of library.

<i>Figure 9. Total DASD Space Required by zSecure</i>	
<b>Library Type</b>	<b>Total Space Required in 3390 Trks</b>
Target	4180
Distribution	4370

### 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 6.1.7, "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 not be in the LPA, with some exceptions. If the value in the "Member Type" column specifies "LPA", it is advised to place the data set in the LPA.
- Loadmodules from these data sets cannot be added to the active LPA using Dynamic LPA Services (CSVDYLPA or SETPROG LPA).
- These data sets can be in the LNKLIST.
- These data sets must be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install zSecure. The storage requirements of zSecure 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 10 (Page 1 of 2). Storage Requirements for zSecure Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SCKRCARL		ANY	U	PDS	FB	80	460	110
SCKRCLIB	EXEC	ANY	U	PDS	FB	80	62	7
SCKRLOAD	LMOD	ANY	U	PDSE	U	0	1067	n/a
SCKRMLIB	MSG	ANY	U	PDS	FB	80	18	10
SCKRPAX		ANY	U	PDS	FB	80	236	2
SCKRPLIB	PNL	ANY	U	PDSE	FB	80	2134	n/a

Figure 10 (Page 2 of 2). Storage Requirements for zSecure Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SCKRPROC	PROC	ANY	U	PDS	FB	80	5	5
SCKRSAMP	SAMP	ANY	U	PDS	FB	80	29	10
SCKRSLIB	SKEL	ANY	U	PDS	FB	80	38	12
SCKRTLIB	Table	ANY	U	PDS	FB	80	50	2
SCKRCJPN	EXEC	ANY	U	PDS	FB	80	350	5
SCKRMJPN	MSG	ANY	U	PDS	FB	80	18	10
SCKACUST		ANY	U	PDSE	FB	80	48	n/a
SCKACUSV		ANY	U	PDSE	VB	32740	48	n/a

Figure 11. Storage Requirements for zSecure Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ACKRCARL	U	PDS	FB	80	460	110
ACKRCLIB	U	PDS	FB	80	62	7
ACKRLOAD	U	PDSE	U	0	1267	n/a
ACKRMLIB	U	PDS	FB	80	18	10
ACKRPAX	U	PDS	FB	80	236	2
ACKRPLIB	U	PDSE	FB	80	2134	n/a
ACKRPROC	U	PDS	FB	80	5	5
ACKRSAMP	U	PDS	FB	80	29	10
ACKRSLIB	U	PDS	FB	80	38	12
ACKRTLIB	U	PDS	FB	80	50	2
ACKRCJPN	U	PDS	FB	80	350	5
ACKRMJPN	U	PDS	FB	80	18	10
AC4RLNK	S	PDSE	U	0	11	n/a
ACKACUST	U	PDSE	FB	80	48	n/a
ACKACUSV	U	PDSE	VB	32740	48	n/a

The following figures list data sets that are not used by SMP/E, but are required for zSecure to run.

*Figure 12. Storage Requirements for zSecure Non-SMP/E Data Sets*

<b>Data Set Name</b>	<b>T Y P E</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>No. of 3390 Trks</b>	<b>No. of DIR Blks</b>
your.hlq.CKRJOBS	U	PDS	FB	80	15	10
your.hlq.CKRPARM	U	PDS	FB	80	15	10
your.hlq.CKRPROF	U	PDS	FB	80	15	10
your.hlq.CKACUST	U	PDSE	FB	80	48	n/a
your.hlq.CKACUSV	U	PDSE	VB	32740	48	n/a

### 5.3 FMIDs Deleted

Installing zSecure 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 zSecure 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

zSecure 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 zSecure.

Please note the following points:

- If you want to install zSecure 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. Additionally, to assist you in doing this, IBM has provided samples to help you create an SMP/E environment at the following url:  
<http://www.ibm.com/support/docview.wss?uid=swg21066230>  
Alternatively, you may want to use the *Fast install process*, as described in the Installation and Deployment Guide. Fast install will create its own SMP/E environment.
- 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 SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

---

### 6.1 Installing zSecure

#### 6.1.1 SMP/E Considerations for Installing zSecure

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

#### 6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 13. 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.

Subentry	Value	Comment
DSSPACE	(30,135,810)	Space Allocation for SMPTLIB data sets
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

### 6.1.3 Sample Jobs

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

*Figure 14. Sample Installation Jobs*

Job Name	Job Type	Description	RELFILE
CKRZUPDZ	UPDATE	Sample job to update installation library	IBM.HCKR250.F1
CKRZUPDI	-	Input data for job CKRZUPDZ. It is also used during post-install job CKRZPOST.	IBM.HCKR250.F1
C2RIISPF	-	JCL-include for job CKRZUPDZ. It is also used during post-install job CKRZPOST, and as part of the installed product (the Change Tracking function)	IBM.HCKR250.F1
CKRZSMPA	DEFINE	Sample job to create a Global CSI	IBM.HCKR250.F1
CKRZSMPB	DEFINE	Sample job to create a Target/Dlib CSI	IBM.HCKR250.F1
CKRZSMPC	DEFINE	Sample job to define an SMP/E OPTIONS entry	IBM.HCKR250.F1
CKRZREC	RECEIVE	Sample RECEIVE job	IBM.HCKR250.F1
CKRZALL	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HCKR250.F1
CKRZDDD	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HCKR250.F1
CKRZAPP	APPLY	Sample APPLY job	IBM.HCKR250.F1
CKRZACC	ACCEPT	Sample ACCEPT job	IBM.HCKR250.F1

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.6, “Perform SMP/E RECEIVE” on page 20) then copy the jobs from the RELFILEs to a work data set for editing and submission. See Figure 14 to find the appropriate RELFILE data set.

You can also copy the sample installation jobs from the directory where your Shopz order is stored by submitting the following job.



```

//STEP1 EXEC PGM=GIMUNZIP,REGION=0M,PARM='HASH=NO'
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(10,10))
//SYSUT4 DD UNIT=SYSALLDA,SPACE=(CYL,(15,5))
//SMPJHOME DD PATH='/usr/lpp/java/J7.0/' <===NOTE 1
//SMPCPATH DD PATH='/usr/lpp/smp/classes/' <===NOTE 1
//SMPOUT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SMPDIR DD PATHDISP=KEEP,
// PATH='/<ntmdir>/<orderid>/SMPRELF/' <===NOTE 2
//SYSIN DD *
<GIMUNZIP>
<ARCHDEF
name="CBCACHE.IBM.HCKR250.F1.pax.Z"
volume="<volser>" <===NOTE 3
newname="<your-prefix>.CKRINST" <===NOTE 4
</ARCHDEF>
</GIMUNZIP>
/*

```

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

Add a job card that is specific to your installation requirements.

Note 1: Change these directories to your installations java and smp classes directories.

Note 2: Change ntsdir to the directory that holds your Shopz orders. Change orderid to your order ID, for example 2008567304\_000010\_PROD.

Note 3: Change volser to a volser that you want the output dataset to reside on.

Note 4: Change your-prefix to the high-level qualifier(s) for the output dataset.

Refer to *CBPDO Internet Delivery User's Guide*.

## 6.1.4 Batch-mode Updating the jobs (optional)

In order to apply your naming convention, you can manually edit the install jobs. All zSecure-supplied jobs contain instructions on changing jobcards, data set names, high level qualifiers, etc.

A more convenient way to apply your naming convention is using update parameter member CKRZUPDI, JCL-include C2RIISPF, and global update job CKRZUPDZ. These are described in the Installation and Deployment Guide. In addition, job CKRZUPDZ uncomments the required FMIDs, according to the products you selected, in the RECEIVE, APPLY and ACCEPT jobs. Updating CKRZUPDI and C2RIISPF is optional for the Formal install process. However, we recommend that you do these updates, not only for convenience, but also because post-install job CKRZPOST makes use of these members. Member C2RIISPF, in its customized form, is also used as part of the installed product (the Change Tracking function).

## 6.1.5 Setup SMP/E CSI and Zones (optional)

For setting up the SMP/E environment, see the notes at the beginning of this chapter, or use the sample jobs mentioned above.

### 6.1.5.1 Allocate SMP/E GLOBAL CSI (Optional)

If you choose to install this product in its own SMP/E environment, edit and submit sample job CKRZSMPA to allocate a new SMP/E GLOBAL CSI. You will receive a return code of 0 if this job runs correctly.

### 6.1.5.2 Allocate SMP/E Target/DLIB CSI (Optional)

If you choose to install this product in its own SMP/E environment, edit and submit sample job CKRZSMPB to allocate a new SMP/E TARGET/DLIB CSI. You will receive a return code of 0 if this job runs correctly.

### 6.1.5.3 Define OPTIONS entry to SMP/E GLOBAL/Target/DLIB CSI (Optional)

If you choose to install this product in its own SMP/E environment, edit and submit sample job CKRZSMPD to create and specify an OPTIONS entry for use during installation of the product. You will receive a return code of 0 if this job runs correctly.

## 6.1.6 Perform SMP/E RECEIVE

If you install zSecure as a Web download package, the SMP/E RECEIVE is performed during the execution of the README file. In this case, you can skip this section and continue with the next section of the program directory.

If you have obtained zSecure as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the zSecure 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 (if you did not use CKRZUPDZ) and submit sample job CKRZREC to perform the SMP/E RECEIVE for zSecure. Consult the instructions in the sample job for more information.

You should always RECEIVE FMIDs HCKR250 and HC4R250, and other FMIDs, according to table 1.2, “zSecure FMIDs” on page 2, or according to your choices in member CKRZUPDI. If you run job CKRZUPDZ, as described in section 6.1.4, “Batch-mode Updating the jobs (optional)” on page 19, the FMIDs that you need will already be uncommented. If you did not run CKRZUPDI, you need to uncomment the FMIDs yourself.

If you are installing multiple products of the zSecure suite from separate install media (as opposed to a single CBPDO electronic download), you should at this point run job CKRZREC against all zSecure

product download files before proceeding to the next job. If any messages "already received" arise, ignore them. Installing in this way gives you a single set of libraries with all the required capabilities.

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

### 6.1.7 Allocate SMP/E Target and Distribution Libraries

Edit (if you did not use CKRZUPDZ) and submit sample job CKRZALL to allocate the SMP/E target and distribution libraries for zSecure. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** This job will complete with a return code 4 if the AC4RLNK does not exist or return code 0 if it does. You must check allocation messages to verify the data sets are allocated and cataloged as expected.

### 6.1.8 Create DDDEF Entries

Edit (if you did not use CKRZUPDZ) and submit sample job CKRZDDD to create DDDEF entries for the SMP/E target and distribution libraries for zSecure. Consult the instructions in the sample job for more information. You will receive a return code of 0 if this job runs correctly.

### 6.1.9 Perform SMP/E APPLY

1. Ensure you have the latest Enhanced HOLDDATA, then edit (if you did not use CKRZUPDZ) and submit sample job CKRZAPP to perform an SMP/E APPLY CHECK for zSecure. 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/holddata/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 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-REQUIRESERVICE 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.

You should always APPLY FMIDs HCKR250 and HC4R250, and other FMIDs, according to table 1.2, “zSecure FMIDs” on page 2, or according to your choices in member CKRZUPDI. If you run job CKRZUPDZ, as described in section 6.1.4, “Batch-mode Updating the jobs (optional)” on page 19, the FMIDs that you need will already be uncommented. If you did not run CKRZUPDI, you need to uncomment the FMIDs yourself.

**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.

## 6.1.10 Perform SMP/E ACCEPT

Edit (if you did not use CKRZUPDZ) and submit sample job CKRZACC to perform an SMP/E ACCEPT CHECK for zSecure. Consult the instructions in the sample job for more information.

You should always ACCEPT FMIDs HCKR250 and HC4R250, and other FMIDs, according to table 1.2, “zSecure FMIDs” on page 2, or according to your choices in member CKRZUPDI. If you run job CKRZUPDZ, as described in section 6.1.4, “Batch-mode Updating the jobs (optional)” on page 19, the FMIDs that you need will already be uncommented. If you did not run CKRZUPDI, you need to uncomment the FMIDs yourself.

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 zSecure, 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 Activating zSecure

### 6.2.1 Post install

The publication *IBM Security zSecure Suite: CARLa driven components, Installation and Deployment Guide Version 2.5.0, SC27-5638* contains the step-by-step procedures to fully activate the functions of zSecure. These steps include

- Copying to or connecting from your images
- Making the software APF authorized
- Check product enablement via IFAPRDxx in PARMLIB
- Making the software available to TSO/ISPF users
- Making the software available for batch processes
- Making configurations available
- Configuration
- Installation verification

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## Reader's Comments

**Program Directory for IBM Security zSecure Suite: CARLa driven components, April 2021** 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.

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