IBM

Program Directory for

IBM Sterling

Connect:Direct

for z/OS

V05.01.00

Program Number 5655-X01

FMID HDGA510

for Use with
z/OS V1.10.00 and higher

Document Date: April 2011

GI13-1828-00

> **Note**
>
> Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 24.

Contents

Figures

1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of IBM Sterling Connect:Direct for z/OS. This publication refers to IBM Sterling Connect:Direct for z/OS as Sterling Connect:Direct.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for Sterling Connect:Direct.

- 3.0, "Program Support" on page 6 describes the IBM support available for Sterling Connect:Direct.

- 4.0, "Program and Service Level Information" on page 8 lists the APARs (program level) and PTFs (service level) that have been incorporated into Sterling Connect:Direct.

- 5.0, "Installation Requirements and Considerations" on page 9 identifies the resources and considerations that are required for installing and using Sterling Connect:Direct.

- 6.0, "Installation Instructions" on page 17 provides detailed installation instructions for Sterling Connect:Direct. It also describes the procedures for activating the functions of Sterling Connect:Direct, or refers to appropriate publications.

Before installing Sterling Connect:Direct, 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 6 tells you how to find any updates to the information and procedures in this Program Directory.

Sterling Connect:Direct 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 that is provided with your order. All service and HOLDDATA for Sterling Connect:Direct are included on the CBPDO tape.

Do not use this program directory if you install Sterling Connect:Direct with a SystemPac or ServerPac. When you use these offerings, use the jobs and documentation supplied with the offering. This program directory can point you to specific sections of it as required.

1.1 Sterling Connect:Direct Description

IBM Sterling Connect:Direct for z/OS is peer-to-peer file-based integration middleware optimized for assured delivery, high-volume and secure data exchange within and between enterprises. It is optimized for high performance and moves files containing any type of data across multiple platforms, disparate file systems, and disparate media.

Sterling Connect:Direct enables business to:

- Move large amounts of data internally and externally

- Share information with business partners

- Schedule business information-related application activities

- Automate data distribution

- Control and audit network activities

- Maintain network security

- Use one common command structure for information management with platform-specific interfaces

1.2 Sterling Connect:Direct FMIDs

Sterling Connect:Direct consists of the following FMID:

HDGA510

2.0 Program Materials

An IBM program is identified by a program number. The program number for Sterling Connect:Direct is 5655-X01.

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 Sterling Connect:Direct. 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 magnetic tape 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 tape for the basic machine-readable materials for Sterling Connect:Direct in the *CBPDO Memo To Users Extension.*

Figure 1 describes the program file content for Sterling Connect:Direct. You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

Notes:

1. The data set attributes in this table must be used in the JCL of jobs that read the data sets. However, because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.

2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1 (Page 1 of 2). Program File Content				
Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	8800
IBM.HDGA510.F1	PDS	FB	80	8800
IBM.HDGA510.F2	PDSE	U	0	6144
IBM.HDGA510.F3	PDSE	U	0	6144
IBM.HDGA510.F4	PDS	VB	2048	23476
IBM.HDGA510.F5	PDS	FB	80	8800

Figure 1 (Page 2 of 2). Program File Content				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
IBM.HDGA510.F6	PDS	FB	80	8800
IBM.HDGA510.F7	PDS	FB	80	8800
IBM.HDGA510.F8	PDS	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for Sterling Connect:Direct.

The distribution medium for this program is magnetic tape or downloadable files.

2.3 Program Publications

The following sections identify the basic and optional publications for Sterling Connect:Direct.

2.3.1 Basic Program Publications

Figure 2 identifies the basic unlicensed program publications for Sterling Connect:Direct. One copy of each of these publications is included when you order the basic materials for Sterling Connect:Direct. Additional copies can be obtained from the IBM Publications Web Site at URL: http://www.ibm.com/shop/publications/order/. For additional information contact your IBM representative.

Figure 2 (Page 1 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Where Found**
IBM Sterling Connect:Direct for z/OS Administration Guide	CD
IBM Sterling Connect:Direct for z/OS User's Guide	CD
IBM Sterling Connect:Direct for z/OS Configuration Guide	CD
IBM Sterling Connect:Direct for z/OS Quick Reference Guide	CD
IBM Sterling Connect:Direct for z/OS CICS Administration and User's Guide	CD
IBM Sterling Connect:Direct for z/OS Facilities Guide	CD
IBM Sterling Connect:Direct Secure Plus for z/OS Implementation Guide	CD
IBM Sterling Connect:Direct Processes Language Reference Guide	CD

Figure 2 (Page 2 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Where Found**
IBM Sterling Connect:Direct Overview	CD
IBM Sterling Connect:Direct Compatibility and Connectivity Chart	CD

There are no licensed publications for Sterling Connect:Direct.

2.3.2 Optional Program Publications

No optional publications are provided for Sterling Connect:Direct.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for Sterling Connect:Direct.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 3 during the installation of Sterling Connect:Direct. To order copies, contact your IBM represensative or visit the IBM Publications Center at http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.wss

Figure 3. Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS User's Guide	SA22-7773
IBM SMP/E for z/OS Commands	SA22-7771
IBM SMP/E for z/OS Reference	SA22-7772
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA22-7770

3.0 Program Support

This section describes the IBM support available for Sterling Connect:Direct.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install Sterling Connect:Direct, make sure that you have reviewed the current Preventive Service Planning (PSP) information. The PSP Buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for the installation of this package. This service includes software PSP information for Sterling Connect:Direct for z/OS that contains HIPER and required PTFs against the base release.

If you obtained Sterling Connect:Direct as part of a CBPDO, HOLDDATA is included.

If the CBPDO for Sterling Connect:Direct is older than two weeks old by the time you install the product materials, you should obtain the latest PSP Bucket information by going to the following Web site:

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 Web site at http://www-01.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 Sterling Connect:Direct are shown as follows:

Figure 4. PSP Upgrade and Subset ID		
UPGRADE	**SUBSET**	**Description**
STRCD510	HDGA510	Sterling Connect:Direct for z/OS

3.3 Statement of Support Procedures

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

Figure 5 on page 7 identifies the component IDs (COMPID) for Sterling Connect:Direct.

Figure 5. Component IDs			
FMID	**COMPID**	**Component Name**	**RETAIN Release**
HDGA510	5655X0100	Sterling Connect:Direct	510

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of Sterling Connect:Direct. 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

No APARs have been incorporated into Sterling Connect:Direct.

4.2 Service Level Information

No PTFs against this release of Sterling Connect:Direct have been incorporated into the product tape.

It is highly recommended that you frequently check the Sterling Connect:Direct PSP Bucket for HIPER and SPECIAL Attention PTFs against all FMIDs that you must install.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating Sterling Connect:Direct. The following terminology is used:

- *Driving system*: the system used to install the program; where SMP/E executes.

  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 that is required to install Sterling Connect:Direct.

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 this product's shipment?**
Any **one** of the following:				
5694-A01	z/OS	V01.10.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

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

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use Sterling Connect:Direct.

Sterling Connect:Direct installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites

Installation requisites identify products that are required by and *must* be present on the system or products that are not required by 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 this product's shipment?**
5694-A01	z/OS	01.10.00 or higher	N/A	No

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

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

Sterling Connect:Direct has no conditional installation requisites.

5.2.2.2 Operational Requisites

Operational requisites are products that are required by 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.

Program Number	Product Name and Minimum VRM/Service Level
Figure 8. Target System Mandatory Operational Requisites	
5694-A01	z/OS V01.10.00 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.

Program Number	Product Name and Minimum VRM/Service Level	Function
Figure 9. Target System Conditional Operational Requisites		
5655-M15	CICS Transaction Server for z/OS V3.1 or higher	CICS Interface

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.

Sterling Connect:Direct 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.

Sterling Connect:Direct has no negative requisites.

5.2.3 DASD Storage Requirements

Sterling Connect:Direct libraries can reside on all supported DASD types.

Figure 10 lists the total space that is required for each type of library.

Figure 10. Total DASD Space Required by Sterling Connect:Direct	
Library Type	**Total Space Required in 3390 Trks**
Target	3600
Distribution	3600
File System	N/A

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 6.1.5, "Allocate SMP/E Target and Distribution Libraries" on page 19.

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 may 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 may be changed.
- The default block size of the data set may be changed.
- The data set may be merged with another data set that has equivalent characteristics.
- The data set may 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 LNKLST.
- These data sets are not required to be APF-authorized.

The following table provides an estimate of the storage needed in the SMP/E data sets for Sterling Connect:Direct. You must add the estimates to those of any other programs and service that you install to determine the total additional storage requirements.

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

Figure 11 (Page 1 of 2). Storage Requirements for SMP/E Data Sets						
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**
SMPLTS	E	PDSE	U	0	150	-
SMPMTS	E	PDS	FB	80	150	100
SMPPTS	E	PDSE	FB	80	900	-
SMPSCDS	E	PDS	FB	80	150	100

Figure 11 (Page 2 of 2). Storage Requirements for SMP/E Data Sets						
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
SMPSTS	E	PDS	FB	80	150	100

The following figures describe the target and distribution libraries and file system paths required to install Sterling Connect:Direct. The storage requirements of Sterling Connect:Direct must be added to the storage required by other programs having data in the same library or path.

Note: The data in these tables should be used when determining 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 12 (Page 1 of 2). Storage Requirements for Sterling Connect:Direct 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
SDGACICS	LMOD	ANY	U	PDSE	U	0	268	-
SDGACNTL	Sample	ANY	U	PDS	FB	80	7	10
SDGADATA	Data	ANY	U	PDS	VB	2048	151	20
SDGAISPC	Clist	ANY	U	PDS	FB	80	81	20
SDGAJCL	Sample	ANY	U	PDS	FB	80	9	20
SDGALINK	LMOD	ANY	U	PDSE	U	0	2334	-
SDGAMAC	MACRO	ANY	U	PDS	FB	80	135	40
SDGAMAP	Data	ANY	U	PDS	FB	80	51	40
SDGAMENU	PNL	ANY	U	PDS	FB	80	12	50
SDGAMIB	Sample	ANY	U	PDS	VB	256	15	10
SDGAMSGS	MSGS	ANY	U	PDS	FB	80	30	50
SDGAOPLS	Sample	ANY	U	PDS	FB	80	4	20
SDGAPARM	Sample	ANY	U	PDS	FB	80	6	20
SDGAPENU	PNL	ANY	U	PDS	FB	80	117	125
SDGAPROC	PROC	ANY	U	PDS	FB	80	15	50
SDGAPROF	Sample	ANY	U	PDS	FB	80	2	7
SDGASAMP	Sample	ANY	U	PDS	FB	80	302	50

Figure 12 (Page 2 of 2). Storage Requirements for Sterling Connect:Direct Target Libraries								
Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SDGASENU	PNL	ANY	U	PDS	FB	80	5	15
SDGATRP	Sample	ANY	U	PDS	VB	256	15	10

Figure 13. Sterling Connect:Direct File System Paths		
DDNAME	TYPE	Path Name
n/a		

Figure 14 (Page 1 of 2). Storage Requirements for Sterling Connect:Direct Distribution Libraries							
Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
ADGACICS	U	PDSE	U	0	268	-
ADGACNTL	U	PDS	FB	80	7	10
ADGADATA	U	PDS	VB	2048	151	20
ADGAISPC	U	PDS	FB	80	81	20
ADGAJCL	U	PDS	FB	80	9	20
ADGALINK	U	PDSE	U	0	2334	-
ADGAMAC	U	PDS	FB	80	135	40
ADGAMAP	U	PDS	FB	80	51	40
ADGAMENU	U	PDS	FB	80	12	50
ADGAMIB	U	PDS	VB	256	15	10
ADGAMSGS	U	PDS	FB	80	30	50
ADGAOPLS	U	PDS	FB	80	4	20
ADGAPARM	U	PDS	FB	80	6	20
ADGAPENU	U	PDS	FB	80	117	125
ADGAPROC	U	PDS	FB	80	15	50
ADGAPROF	U	PDS	FB	80	2	7

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
Figure 14 (Page 2 of 2). Storage Requirements for Sterling Connect:Direct Distribution Libraries						
ADGASAMP	U	PDS	FB	80	302	50
ADGASENU	U	PDS	FB	80	5	15
ADGATRP	U	PDS	VB	256	15	10

5.3 FMIDs Deleted

Installing Sterling Connect:Direct 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 Sterling Connect:Direct 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, see the SMP/E manuals for instructions.

5.4 Special Considerations

Even though you can install Sterling Connect:Direct into any SMP/E environment, it is HIGHLY recommended to install into a separate environment. This is to avoid any possible collsions with other products.

Before you start using Sterling Connect:Direct, check the Release Notes for the latest information on implementing this version, and refer to the *IBM Sterling Connect:Direct for z/OS Configuration Guide* for step-by-step instructions on how to customize the product for your environment.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of Sterling Connect:Direct.

Please note the following:

- If you want to install Sterling Connect:Direct into its own SMP/E environment (HIGHLY RECOMMENDED to avoid any possible collisions), 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 a sample (DGASMPE found in relfile F1) to help you create an 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.

- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing Sterling Connect:Direct

6.1.1 SMP/E Considerations for Installing Sterling Connect:Direct

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of Sterling Connect:Direct.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 15. 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 15. SMP/E Options Subentry Values		
Subentry	**Value**	**Comment**
DSSPACE	2500,100,300	This is the minimum. Any larger value is acceptable.
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 Sterling Connect:Direct:

Job Name	Job Type	Description	RELFILE
DGASMPE	DEFINE	Sample job to create SMP/E environment	IBM.HDGA510.F1
DGARECVE	RECEIVE	Sample RECEIVE job	IBM.HDGA510.F1
DGAALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HDGA510.F1
DGADDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HDGA510.F1
DGAAPPLY	APPLY	Sample APPLY job	IBM.HDGA510.F1
DGAACCPT	ACCEPT	Sample ACCEPT job	IBM.HDGA510.F1

Figure 16. Sample Installation Jobs

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 16 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN   DD DSN=IBM.HDGA510.F1,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.HDGA510.F1,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(5,5,5))
//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 tape.
  volser is the volume serial that matches the product tape.

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.fmid.Fy 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.

6.1.4 Perform SMP/E RECEIVE

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

You can also choose to edit and submit sample job DGARECVE to perform the SMP/E RECEIVE for Sterling Connect:Direct. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should end with RC=0.

6.1.5 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job DGAALLOC to allocate the SMP/E target and distribution libraries for Sterling Connect:Direct. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should end with RC=0.

6.1.6 Create DDDEF Entries

Edit and submit sample job DGADDDEF to create DDDEF entries for the SMP/E target and distribution libraries for Sterling Connect:Direct. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should end with RC=0.

6.1.7 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job DGAAPPLY to perform an SMP/E APPLY CHECK for Sterling Connect:Direct. Consult the instructions in the sample job for more information.

   HOLDDATA introduces ERROR HOLDs against FMIDs for HIPER APARs. Before the installation, ensure that you have the latest HOLDDATA, which is available through several different portals, including http://service.software.ibm.com/holdata/390holddata.html. Install the FMIDs regardless of the status of unresolved HIPERs. However, do not deploy the software until the unresolved HIPERs are analyzed to determine applicability.

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. This is because 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 is a sample to install FMIDs when ++HOLDs for HIPERs exist for the FMIDs that you install:

a. To ensure that all recommended and critical service is installed with the FMIDs, if you have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below.

b. SMP/E V3.5 or higher:

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND .
```

Some HIPER APARs might not have PTFs available yet. You have to analyze the symptom flags to determine if you want to bypass the specific ERROR HOLDs and continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixes available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

c. To install the FMIDs without regard for the HIPERs, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. In this way, you can install FMIDs even though HIPER ERROR HOLDs against them still exist. Only the HIPER ERROR HOLDs are bypassed. After the FMIDs are installed, run the SMP/E REPORT ERRSYSMODS command to identify missing HIPER maintenance.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
  ..any other parameters documented in the program directory
```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs. If you have received the latest HOLDDATA, you can also choose to run REPORT MISSINGFIX for Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDs during the installation of the FMIDs because PTFs are not yet available, you can be notified when the PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

Note: The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

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

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

6.1.8 Perform SMP/E ACCEPT

Edit and submit sample job DGAACCPT to perform an SMP/E ACCEPT CHECK for Sterling Connect:Direct. 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. This is because the SMP/E root cause analysis identifies the cause of only *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 manuals.

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-edits or binds 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.

6.1.9 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 Sterling Connect:Direct, 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 Sterling Connect:Direct

The publication *IBM Sterling Connect:Direct for z/OS Configuration Guide* contains the necessary information to customize and use Sterling Connect:Direct.

Before you start using Sterling Connect:Direct, check the Release Notes for the latest information on implementing this version, and then refer to the *IBM Sterling Connect:Direct for z/OS Configuration Guide* for step-by-step instructions on how to customize the product for your environment.

Figure 17 identifies other supporting products available via Shopz for 5655-X01 and form number below that provide further functionality for Sterling Connect:Direct.

Figure 17 (Page 1 of 2). Other 5655-X01 Supporting Products available via Shopz	
Product	**Form Number**
IBM Sterling Connect:Direct Browser User Interface for AIX	LCD7479000
IBM Sterling Connect:Direct Browser User Interface for HPUX	LCD7479100
IBM Sterling Connect:Direct Browser User Interface for HPUX Itanium	LCD7479200
IBM Sterling Connect:Direct Browser User Interface for Java	LCD7479300
IBM Sterling Connect:Direct Browser User Interface for Linux	LCD7479400
IBM Sterling Connect:Direct Browser User Interface for SolarisINTEL	LCD7479500
IBM Sterling Connect:Direct Browser User Interface for SolarisSPARC	LCD7479600
IBM Sterling Connect:Direct Browser User Interface for Windows	LCD7479700
IBM Sterling Certificate Wizard for Windows	LCD7479800
IBM Sterling Certificate Wizard for UNIX	LCD7479900
IBM Sterling Connect:Direct Application Interface for Java	LCD7480000

Figure 17 (Page 2 of 2). Other 5655-X01 Supporting Products available via Shopz	
Product	**Form Number**
IBM Sterling Connect:Direct File Agent (Java)	LCD7520400
IBM Sterling External Authentication Server for AIX	LCD7521000
IBM Sterling External Authentication Server for HPUX	LCD7521100
IBM Sterling External Authentication Server for Solaris Sparc	LCD7521200
IBM Sterling External Authentication Server for Linux	LCD7521300
IBM Sterling External Authentication Server for Windows	LCD7521400

Figure 18 identifies other supporting products available via physical media (CD or DVD) for 5655-X01 and form number below that provide further functionality for Sterling Connect:Direct. The physical media in the following table includes all the products listed in Figure 17 that specifically provide futher functionality for Sterling Connect:Direct for z/OS as well as for other other platforms of Sterling Connect:Direct.

Figure 18. Other 5655-X01 Supporting Products available via physical media (CD or DVD)	
Product	**Form Number**
IBM Sterling Connect:Direct Application Interface for Java	LCD7477900
IBM Sterling Connect:Direct Browser User Interface	LCD7477700
IBM Sterling Connect:Direct File Agent	LCD7478000
IBM Sterling Certificate Wizard	LCD7477800
IBM Sterling External Authentication Server	LCD7478100

7.0 Notices

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

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Program Directory for IBM Sterling Connect:Direct for z/OS, April 2011

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```
┌─ RATING SCALE ──────────────────────────────────────────────
│   very                          very        not
│  satisfied  <====================>  dissatisfied  applicable
│     1       2      3      4      5            N
└──────────────────────────────────────────────────────────────
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of Program Directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of Program Directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Ease of getting the system into production after installation	1	2	3	4	5	N

How did you order this product?

___   CBPDO
___   CustomPac
___   ServerPac
___   Independent
___   Other

Is this the first time your organization has installed this product?

___   Yes
___   No

Were the people who did the installation experienced with the installation of z/OS products?

___   Yes

___ No

If yes, how many years? ___

If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

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