Sterling Commerce
Product Documentation

Connect:Direct® for z/OS Version 4.8.00
Release Notes

Sterling Commerce
An IBM Company

Connect:Direct for z/OS Version 4.8.00 Release Notes

Third Edition

Contents

Connect:Direct for z/OS Version 4.8.00 Release Notes

The *Connect:Direct for z/OS Version 4.8.00 Release Notes* document supplements Connect:Direct version 4.8 documentation. Release notes are updated with each release of the product and contain last-minute changes and product requirements, as well as other information pertinent to installing and implementing Connect:Direct. Read the document in its entirety before installation.

The Connect:Direct for z/OS package consists of the distribution media, a license key, and product publications. Connect:Direct for z/OS is distributed as follows:

✦ File downloaded from the Sterling Commerce Electronic Software Distribution Portal

See *Installing Connect:Direct from the ESD Portal* on page 22 for instructions.

✦ CD-ROM, DVD, or tape format when Sterling Commerce ships the physical distribution media

Requirements

Your use of Connect:Direct for z/OS version 4.8.00 has the following requirements:

Hardware and Software

The hardware and software requirements for the Connect:Direct for z/OS version 4.8.00 release are listed in Chapter 2, *Planning the Installation*, of *Connect:Direct for z/OS Installation Guide*. You must have IBM z/OS version 1.8 or later. The Connect:Direct Secure+ Option component requires the same hardware and software as Connect:Direct and the additional software listed in the following table.

The File Agent component must be installed in the UNIX System Services component of z/OS and configured to communicate with the Connect:Direct server. Use a PC for terminal emulation when you are ready to create a configuration file when executing File Agent. File Agent uses mount points, which are HFS files requiring at least 20 cylinders of available space. See the following table for additional File Agent requirements.

> **Note:** Sterling Commerce does not provide assistance for versions of third-party products not supported by their vendors. To ensure optimal performance, you must be running the current version of all third-party software that interfaces with Connect:Direct.
>
> In addition, all third-party software must be supported for IBM z/OS version 1.8 or later.

Component or Functionality	Software
Connect:Direct Secure+ Option for z/OS	TCP/IP connection if you plan to use the SSL or TLS protocol for secure communications
	IBM SystemSSL toolkit
	IBM Language Environment
	License management key with SECURE-PLUS and SECURE-SSL enabled
File Agent version 1.0.07	Hummingbird Exceed® PC X server for WIN32, version 7.0 or later for terminal emulation
	Java 2 Platform, Standard Edition (J2SE). Download the J2SE from the IBM web site.

Customer Center Portal User Name and Password

The new Customer Center portal offers you a single location to administer everything associated with your Sterling Commerce products and services. It provides quick access to online tools, on-demand applications, community forums, product information, industry news, support updates, and support case management. We've combined the current content experience of our customer-facing portals–Innovation Gateway, STUN (Sterling Commerce Technical Users Network), and Support on Demand–and extended it across all of our products and applications within Customer Center.

To log into the Customer Center, go to http://customer.sterlingcommerce.com. If you do not have a Support On Demand user name and password, click the **Join now** link and follow the instructions for new users. If you have a Support on Demand acount, define a new password the first time you log on.

Additional Requirements

Connect:Direct for z/OS version 4.8.00 has the following additional requirements.

POSIX Environment and System Libraries

The UNIX System Services (or POSIX) environment must be installed and set up prior to installing Connect:Direct. The POSIX requirement and the use of C/C++ and LE mean that the following data sets must be available to Connect:Direct through the STEPLIB of LINKLST. In addition to C/C++

and LE, XPLINK is now a requirement to support the File Accelerator and alters the data set list from previous releases.

✦ CEE.SCEERUN   (IBM Language Environment)

✦ CEE.SCEERUN2 (XPLINK Requirement)

✦ CBC.SCLBDLL   (C/C++ Run-time)

✦ SYS1.SIEALNKE (System SSL Environment)

If RACF program control is implemented, these data sets above and the Connect:Direct LINKLIB will need to be defined to the program class.

MBCS Transfers

To perform MBCS transfers, you must verify that the Natural Language Resources component of Language Environment is installed on your operating system.

License Key File

The license key file identifies the product features that are available on authorized CPUs. When you purchase Connect:Direct, a temporary key file is sent to you that enables operation of Connect:Direct for a limited time. You must replace the temporary key with a permanent key to continue running Connect:Direct. For instructions on applying the temporary and permanent key file, see *Connect:Direct for z/OS Installation Guide*.

UDT requires a new APKey file with the UDT keyword specified. If you do not update the license key file, the initialization will fail and you will see the message, *SITA359I Asset Protection failure, UDT is not supported*.

What's New in This Release

For the latest information on updates to the product and documentation, see *Features and Enhancements* on page 7 and *Improvements to Documentation* on page 8.

Features and Enhancements

Connect:Direct for z/OS version 4.8.00 and its related software have the following features and enhancements:

Product/Component	Feature or Enhancement
Connect:Direct	Sterling File Accelerator—supporting UDT (UDP-based Data Transport) for higher throughput rates for file transfers on high-speed networks with latency.
	Provides three new variables,%JOBID, %JOBNM, and %JUSER, which can be used to pass the JES Job Name, Number, and User to a Process.

Improvements to Documentation

Sterling Commerce welcomes your comments and suggestions for improvements to our product documentation. You can submit suggestions for improvements to **ConnectDoc@stercomm.com**.

✦ The Process Guide web site has the following changes:

◆ A new value, UDT33NAM, added to the SNODE parameter of the PROCESS statement to specify UDT connections that are not defined in the Connect:Direct network map.

◆ Three new intrinsic variables, %JOBID, %JOBNM, and %JUSER, which can be used to pass the JES job name, number or user to a Process, including a new example for illustration purposes.

To review the Process Guide updates, use the following link:

http://www.sterlingcommerce.com/Documentation/Processes/WhatsNew.html.

Obtaining Product Updates

Product updates and update summaries, including issues resolved for previous versions of Connect:Direct for z/OS, are available on the Support On Demand Web site.

To obtain product updates:

1. Log on to your Customer Center Web site.

2. Following the links to Support on Demand.

3. From the **Product Support** menu on the left navigation bar, click **Connect>Product Updates & Downloads**.

4. Follow the links for your product until you locate the updates for your product and platform.

Description of Support Requests Resolved for This Release

To review the list of Support Requests resolved for Connect:Direct for z/OS version 4.8.00 since the last cumulative fix release, refer to *Support Requests Resolved for Connect:Direct for z/OS Version 4.8.00,* which is available in PDF format from the Support On Demand Documentation Library. For the history of issues resolved prior to this release, navigate to the Product Updates/Downloads site for your product and platform using the instructions in *Obtaining Product Updates* on page 8 and review the Maintenance documentation for the previous release.

Special Considerations

This section contains considerations in addition to the procedures contained in this document and the other Connect:Direct documents. Refer to the following notes before installing the product.

Connect:Direct for z/OS

Review the following considerations before installing the product:

✦ Prior to Connect:Direct for z/OS version 4.7.01, Intelligent Session Retry put tasks into the HO HC queue pending a connection to the specified SNODE. This automatic processing was the equivalent of manually specifying the HOLD=CALL parameter in the SUBMIT or CHANGE PROCESS command. In Version 4.7.01 and later, Connect:Direct puts the tasks into HO RH (held for retry) when it is awaiting a connection as part of the Intelligent Session Retry logic. When you manually specify HOLD=CALL in the SUBMIT or CHANGE PROCESS command, Connect:Direct will continue to put the Process in HC status in the Hold Queue.

✦ The FIPS initialization parameter is obsolete in Connect:Direct for z/OS version 4.8.00 and is ignored if it is in the initialization parameters file.

✦ UNIX System Service (BPX) calls are executed in the Connect:Direct IUI under the TSO or Batch User ID. BPX calls require that a user ID has an OMVS segment defined to it within the external security product, such as RACF, ACF2 or TOP SECRET. The BPX calls are used to resolve the TCP/IP name or address for reporting purpose in Select Statistics. If a user ID does not have an OMVS segment defined to it, an SEC6 ABEND or Trace Resolver messages under the TSO or batch user can occur when requesting Select Statistics.

Information about adding an OMVS segment to a user ID using an external security product, either individually or as a group assignment, can be found in the manuals produced for the particular external security product you are using, such as IBM's RACF or CA's ACF2 or TOP SECRET.

✦ The following initialization parameters are used in prior releases to define a single TCP/IP port for Connect:Direct to listen for and accept incoming connection requests:

- TCP.ADDR
- TCP.NAME
- TCP.PORTNUM
- TCP.API.PORTNUM
- CDPLEX.TCPIP
- CDPLEX.TCPNAME

Although these parameters are supported in Connect:Direct for z/OS version 4.8, they will become obsolete in a future release. If you use these old TCP initialization parameters, informational messages are issued to NDMLOG. These messages indicate which parameters to replace with new parameters, and Connect:Direct continues to initialize. To avoid these messages, migrate to the new TCP.LISTEN and TCP.API.LISTEN parameters as indicated in the message.

In addition, if you include any combination of TCP.LISTEN and TCP.API.LISTEN with the old parameters in the initialization parameters file, initialization fails. You receive an error message describing the combination of parameters that caused the error. Once you eliminate the incorrect combination of parameters, Connect:Direct initializes successfully.

In a Connect:Direct/Plex environment, if you specify ANYADDR or ANYADDR6 for the TCP.LISTEN local initialization parameter associated with a Connect:Direct Server but do not specify the CDPLEX.REDIRECT parameter, a default address is created as the Connect:Direct/Plex redirection address. For the IPv6 protocol, the default is generated by

adding a ::FFFF: prefix to the IPv4 default. If you do not want this to be your default address, specify the value you do want using the CDPLEX.REDIRECT parameter.

If you are using the dynamic VIPA resources, you may need to specify the SOURCEIP parameter in the network map if the remote node is not able to perform network map checking. The SOURCEIP address will be used to bind the socket and will be used by the remote node to perform netmap checking.

> **Note:** By default, Connect:Direct binds to the address specified in the initialization parameter file as the source IP address. If multiple addresses are specified, the first IPv4 and first IPv6 address is used as the default. If the first address in the list is ANYADDR or ANYADDR6, the default is obtained from TCP/IP itself. If an address other than the default is required, you must define the SOURCEIP parameter in the network map.

The TCP.NAME and CDPLEX.TCPNAME local initialization parameters are no longer used by Connect:Direct. To direct a TCP/IP connection through a specific IP stack, you must use the SOURCEIP network map parameter.

✦ For the Connect:Direct/Plex Manager to be able to select a server to bind to the SOURCEIP address in a network map, specify one of the following:

 ◆ For SOURCEIP, an address used by at least one of the servers to establish a listen task

 ◆ For the PNODE PLEXCLASS keyword in a PROCESS statement, a server to which to direct the Process

✦ If no IPv6 addresses are defined in the network map, you can still use a network map generated using Connect:Direct for z/OS version 4.8 with previous releases. If you need to back out of a version 4.8 install and have defined IPv6 addresses in the network map, you can still use it with previous releases. However, beware that the IPv6 addresses in the netmap will be blanked out and ignored when used with previous releases making communication with IPv6 nodes impossible. If the network map includes IPv6 addresses and the SOURCEIP parameter, previous releases of Connect:Direct for z/OS will be able to use the netmap but will not be able to generate it appropriately unless you edit the data itself. Also, note that IPv6 addresses defined in ALT.ADDR addresses included in the ALT.COMM parameter will not be blanked out when a network map generated under Connect:Direct for z/OS version 4.8 is used with a previous release.

✦ To support the IPv6 protocol which allows for much larger IP addresses, the following panels were changed:

Panel ID	Title of Panel
DMI@INQ	Inquire CD Internal Status
DMI@SGDF	Signon Defaults
DMI@SIGN	Multi-Session Signon
DMI@WHO	WHO Panel
DMISGNON	Main Signon Panel
DMISUBMT	Submit Process (SB)

Panel ID	Title of Panel
DMI#DSTP	Resolved TCP Name/Address panel
DMI#SP02	Select Process Detail Panel
DMI#SS01	Select Stats – Copy Step Detail
DMI#SN01	Swap/Display Panel
DMISLNET	Select NETMAP panel

> **Note:** The layout of any batch report, including field offsets, produced by using one of these panels will change, as well.

✦ Because of internal code changes in the base Connect:Direct product, which promote a more efficient process flow and increase the number of concurrent I/O sessions, review the following factors that affect BSAM sequential data set transfer rates:

◆ MAXSTGIO initialization parameter which limits the maximum I/O buffer storage for BSAM sequential data set transfers. The larger the value, the more concurrent I/O operations Connect:Direct can process. The default has changed from 61,440 to 1 MB. An additional positional parameter has been added to allow you to limit the maximum I/O buffer storage used when you specify the Number of Channel Programs (NCP) in the DCB parameter of the COPY statement. If you specify an NCP value greater than 0, Connect:Direct limits that value using the second positional parameter. For more information on how Connect:Direct processes sequential data sets using BSAM and how to take advantage of this enhancement, review the following documentation:

• *Performance Tuning* in the *Connect:Direct for z/OS Administration Guide* for general guidelines

• *Appendix A* in the *Administration Guide* for more specific information on the MAXSTGIO initialization parameter

> **Note:** If MAXSTGIO is currently defined in the initialization parameter file, you do not have to modify it to include the second positional parameter but you may have it set too low to take advantage of this new enhancement.

◆ Region parameter on the DTF job or step card. Whether or not you adjust the MAXSTGIO initialization parameter, you may need to review what is specified for the region to ensure that you have adequate DTF storage for data transfers and to support the maximum number of concurrent Processes that can be run. For more information on virtual storage requirements, see *Planning the Installation* in *Connect:Direct for z/OS Installation Guide*.

◆ The DCB parameter in your COPY statements. You can specify the NCP value in the DCB parameter to fine-tune the maximum storage used or not specify it to let the system determine the NCP value. To review sample benchmark figures to see the results of changing the NCP value, see Improving Performance in the *Connect:Direct for z/OS Administration Guide.*

♦ The usage of striped extended-format data sets for files that have large amounts of data or in which the time is of essence. A striped extended-format data set is spread over multiple volumes allowing parallel data access. Connect:Direct can take advantage of this attribute and users could see 100% or more increase in I/O rate, depending on the number of stripes. In prior releases of Connect:Direct, striped data sets were transferred using an NCP=1. Starting with Version 4.8, that restriction has been eliminated.

> **Note:** If the receiving side is still limited to NCP=1, the transfer speed will not be improved, since it is limited to the speed at the worst bottleneck.

With this release, Connect:Direct will no longer use the BUFNO parameter in the COPY statement to specify the number of BSAM buffers for reading data from or writing data to a data set. Although Connect:Direct will continue to accept a value of 0–255 for the BUFNO parameter, it will set the actual value to 0. Use the NCP parameter if you wish to specify the number of I/O buffers and the MAXSTGIO initialization parameter to limit it.

✦ Due to an issue with the security toolkit on the i5/OS hardware, an SSL/TLS cipher suite can be negotiated during the SSL/TLS handshake that is not defined in the cipher suite list. IBM PMR, 35692, has been opened to address the i5/OS toolkit issue. When the PTF becomes available for i5/OS, apply it to ensure cipher suite negotiation occurs as expected.

✦ To maximize the available storage below the 16-MB line, define sufficient storage above the 16-MB line, and maximize concurrent processing, define a region size of 0 MB for Connect:Direct.

> **Note:** Depending on your system-specific storage requirements, the MAXTHREADTASK and the MAXASSIZE parameters in SYS1.PARMLIB member BPXPRMxx may also have to be altered to ensure maximum storage and maximum concurrent processing within Connect:Direct.

✦ Do not specify ESTAE=NO unless directed by Connect:Direct Customer Support. If you specify ESTAE=NO and a subtask ABEND occurs, error recovery cannot be invoked, and one of the nodes may go into a WAIT state. For information about properly implementing the ESTAE initialization parameter, refer to Appendix A, *Global Initialization Parameters*, of the *Connect:Direct for z/OS Administration Guide*.

✦ Because the standby extended recovery job and the active Connect:Direct node use the same VTAM APPLID, TCP/IP address, and port, the standby extended recovery job must run in the same z/OS image as the active Connect:Direct node unless you use the Dynamic VIPA and Dynamic SNA information described in *Preparing TCP/IP Configuration* of Chapter 2, *Planning the Installation*, of the *Connect:Direct for z/OS Installation Guide* and in Chapter 8, *Configuring Extended Recovery,* of the *Connect:Direct for z/OS Administration Guide.*

✦ If you copy a file that is in IBM-proprietary compressed format to a new file that is not in IBM-proprietary compressed format, it is possible Connect:Direct will not allocate enough space for the new file.

✦ The Connect:Direct startup JCL has a user-definable DD statement (USRINFO) for displaying user-defined information from User Exits. If the USRINFO DD is allocated, then Connect:Direct opens it during product initialization and initializes it with the string SITA523I USRINFO INITIALIZED.

◆ All messages that begin with the prefix APSM will display in ESTAE output instead of SCESTAE as in earlier releases.

◆ The Batch Compression Utility (CDSACOMP) does not support data sets with a block size greater than 32,760 bytes which includes all LBI transfers.

◆ Because of the changes in the Transmission Control Queue (TCQ) to support Processes containing up to 1 MB, review all SUBMIT exits. Modify any SUBMIT exit that:

   ◆ Alters the size of the TCQE (change TQRECLN)

   ◆ Uses TQCSPRD (pointer to first, that is, current step)

   ◆ Uses TSHFTCQE (forward pointer to next step)

   ◆ Uses TSHBTCQE (backward pointer to previous step)

   ◆ Adds or changes PACCT or SACCT information

   The TQCSPRD, TSHFTCQE, and TSHBTCQE fields contain offsets relative to the start of the TCQE for Processes that do not exceed 64 KB. For larger Processes, these fields must be multiplied by 16 before being used as an offset. In the TCQE, a flag indicates whether or not this processing should take place (the flag byte is TQFLAGA and the bit equate is TQGT64K).

   SUBMIT exits are no longer allowed to change the size of the TCQE (modify TQRECLN). The sample SUBMIT exit SUBXACCT previously showed how to add the PACCT and SACCT fields to the end of the TCQE and extended the length. Because this is no longer allowed, fields have been reserved for the PACCT and SACCT information to allow the SUBMIT exit to add or modify accounting information as required. The sample SUBMIT exit SUBXACCT has been modified to show you how to manipulate this account information.

◆ When copying variable block format data sets greater than 32,760 bytes to a Connect:Direct for UNIX or Windows system, specify the DCB attribute, BLKSIZE, for the TO destination file to ensure that adequate buffer space is allocated. If you do not, one of the following messages is displayed:

   ◆ LCPR001I - Rec len in Comm buffer bigger than IO buffer size (on a Connect:Direct for Windows system).

   ◆ XCPR001I - Rec len in Comm buffer bigger than IO buffer size (on a Connect:Direct for UNIX system).

◆ Connect:Direct for z/OS version 4.8.00 does not support a LU1 printer dedicated to collecting Connect:Direct log data. Remove the LOG.PRINTER initialization parameter if it is still in the initialization parameters file.

◆ Use of IGGCSI00 to access files requires that Connect:Direct for z/OS have READ access to the master catalog.

◆ Only Version 2 Flows, which are used for the TCP/IP and SNA LU6.2 protocols, support the ability to checkpoint files larger than 4 GB. Version 1 Flows, which were used for VTAM SNA LU0, do not support this ability.

◆ To honor the permission setting for HFS files using the PERMISS keyword, you must set the UNIX System Services UMASK to 000 either by default or by using the runtime environment variable, _EDC_UMASK_DFLT. To set the environment variable, define the _EDC_UMASK_DFLT=000 variable in a RECFM=VB type file and allocate the ENVIRON DD in the Connect:Direct startup JCL.
Example: //ENVIRON DD DISP=SHR,DSN=$CD.ENVIRON(TZ)

✦ If you use the InterConnect Option feature to transfer data between Connect:Enterprise and Connect:Direct, you may receive the following warning message in the SYSPRINT report (known as the CONFIRM file in the Connect:Direct Process) if you have not updated your ICO Process member to allocate the report file:

```
CMA180W – OPEN FAILED FOR REPORTS FILE, ICO REPORTS WILL NOT BE GENERATED
```

A Connect:Enterprise fix introduced in August 2006 adds a new parameter which generates a report detailing the operation of the requested offline utility function including information about whether or not the utility ran successfully. In addition, new sample Process members have been added to the Process library which contain examples of how to pass the new parameters and allocate the report file. For information on Fix 35600, see the Readme file for the Cumulative Fix 1206 package for Connect:Enterprise Release 1.2.00 available on the Product Support web site. See *Obtaining Product Updates* on page 8 for instructions on how to navigate to this web site.

✦ When a COPY statement has both the DSNTYPE and LIKE parameters specified for the TO data set, the DSNTYPE should override the LIKE data set's DSNTYPE attribute. However, if you specify DSNTYPE=EXTREQ or EXTPREF, the resulting data set is always non-extended, even if the LIKE data set is extended. To avoid this problem, apply IBM APAR OA21866.

Special Considerations for Using UDT

If you plan to use UDT for file transfers on high-speed networks with latency, refer to the following table which summarizes performance differences between TCP and UDT:

Bandwidth	Latency	Results
45 Mbps	All latencies	TCP is equal to UDT
155 Mbps	Less than 20 ms	TCP outperforms UDT
	Greater than 20 ms	UDT outperforms TCP
1 Gbps	Less than 10 ms	TCP outperforms UDT
	Greater than 10 ms	UDT outperforms TCP

UDT uses significantly more CPU than TCP/IP.

For more information on how to implement firewalls for UDT, see *Configuring Firewall Navigation* in the *Connect:Direct for z/OS Administration Guide*.

Note: You must update the APKey file in order to implement UDT. For more information, see *License Key File* on page 7.

Installation Considerations

Due to requirements for UDT, the Connect:Direct LINKLIB data set must be defined as a PDSE. The Installation procedures have been updated so that JCL member, CDALLOC, will define the LINKLIB as a PDSE with the following attributes and space allocation requirements:

✦ RECFM = U
✦ LRECL = 0
✦ BLKSIZE = 32760
✦ DSNTYPE = LIBRARY

New Initialization Parameters

To implement UDT connections, you must specify the UDT=YES global initialization parameter to load the UDT connection modules during initialization. If UDT= NO is specified, no Connect:Direct Processes can run using the UDT protocol. If the PNODE is defined to use UDT with a remote node, the remote node must also be set up to accept UDT connections from that node.

To specify the UDT listen ports and related parameters, include the following parameters in the initialization parameter file suitable for your environment:

✦ UDP.SRC.PORTS
✦ UDP.SRC.PORTS.LIST.ITERATIONS
✦ UDT=YES
✦ UDT33.LISTEN
✦ UDT.MAXPROCESS

Caution: You cannot use the same port for both TCP and UDT listens.

Note: The UDT, UDT33.LISTEN and UDT.MAXPROCESS parameters can be specified as a global or local initialization parameter where in a Connect:Direct Plex server environment, the local parameter will override the global setting.

If you have a Connect:Direct Plex environment, you may also want to include the CDPLEX.REDIRECT parameter to specify a redirection address to be used by the Connect:Direct Plex Manager based on a UDT33 session type.

For more information on all parameters except UDT.MAXPROCESS, see the global and local initialization parameter appendices in the *Connect:Direct for z/OS Administration Guide.*

Information for UDT.MAXPROCESS Parameter

UDT.MAXPROCESS = 2 | number of executing UDT Processes

This parameter specifies the maximum number of UDT Processes that are allowed to execute at one time. The value allowed is between 1 and 512, inclusive. The default value is 2.

> *Caution:* Although 512 is the maximum valid value for this parameter, you should set UDT.MAXPROCESS to a value much lower than the MAXPROCESS initialization parameter setting. The higher you set the UDT.MAXPROCESS parameter, the greater the negative impact on UDT performance.

Modifiable through MODIFY INITPARMS command: NO

This parameter can be specified as a global or local initialization parameter within a Connect:Direct Plex configuration.

New Network Map Parameters

To specify UDT as the protocol to use for a particular adjacent node, specify UDT33 as the session type positional parameter. To specify UDT as the protocol used for an alternate address, specify UDT33 as the ALTernate.TYPE in the ALTernate.COMMinfo keyword parameter definition.

New PROCESS Statement Parameter

To specify a UDT connection not defined in the Connect:Direct network map, you can add the new value, UDT33NAM, to the SNODE parameter of the PROCESS statement.

In the example below, The CSDPERF.TESTFILE data set is being copied to the SNODE via a UDT connection, which specifies to use the IPv4 address of 10.20.129.20 along with a port value of 1363.

```
UDTNAM   PROC    SNODE=UDT33NAM=10.20.129.20;1363
STEP01   COPY    FROM( PNODE                            -
                   DSN=CSDPERF.TESTFILE                 -
                   DISP=SHR )                           -
                TO( SNODE                               -
                   DSN=CSDPERF.TESTFILE.OUTPUT          -
                   DISP=(NEW,CATLG,DELETE))
```

Panel Changes

To support UDT, the following panels were changed:

✦ DMI@CF01

✦ DMJ@C010

✦ DMISUBMT

Connect:Direct Secure+ Option

Review the following considerations before installing the product:

✦ Connect:Direct administrators need access to UNIX system services in order to update SSL and TLS parameters.

✦ Connect:Direct needs UNIX read/write permissions to the key database. Use the UNIX CHMOD command to change permissions, if necessary.

✦ A default certificate must exist for the SSL or TLS protocol to successfully communicate with a trading partner. Use the IBM GSKKYMAN utility to set a trading partner certificate as the default. For information about creating and managing certificates, refer to the IBM documentation. To locate documentation, go the IBM web site and perform a search on GSKSSL10.

Known Restrictions

Connect:Direct for z/OS version 4.8 and its related software have the following restrictions related to the use of third-party hardware or software with Connect:Direct.

Connect:Direct

Connect:Direct for z/OS version 4.8.00 has the following restrictions:

✦ UDT requires three threads for each executing Process which may impact your storage and concurrent processing capabilities. If the number of available threads becomes critically low, you may need to increase the MAXTHREADS limit per PROCESS in the OMVS environment for Connect:Direct.

✦ Checkpointing is ignored when transferring HFS files.

✦ **Using scheduling or automated operations packages can result in attempts to process incomplete or empty files**
Scheduling packages, such as CA-7, ZEKE, or CONTROL-M and certain automated operations packages, such as CONTROL-O, are often set to start jobs upon a file's closure and an SMF record being cut or based upon specific messages appearing on the system console. When using Connect:Direct for z/OS, this method of starting jobs can result in attempts to process incomplete or empty files. This situation can occur when an active transfer is interrupted and must be restarted. The receiving file will be closed, but upon Process restart it will be written to by Connect:Direct for z/OS.

The recommended way to prevent erroneous processing by such packages is to set up Processes with conditional logic to verify that the copy successfully completes, and then use the scheduling or automation package's provided program (U7SVC, ZEKENDM, CTM@IF10) in a Connect:Direct RUN TASK.

✦ **Restarting a Checkpointed Process using Different Versions of Connect:Direct**
You cannot restart a Process that has been checkpointed using Connect:Direct for z/OS Version 4.6 or later with an earlier release of Connect:Direct (Version 4.5 or earlier). The reverse is true as well, that is, you cannot restart a Process that has been checkpointed using Connect:Direct for z/OS Version 4.5 or earlier, and then restart it with a later version of Connect:Direct. Because of changes to support the LARGE format sequential data sets in IBM z/OS version 1.6 or later, Connect:Direct for z/OS versions before 4.6 produce restart positioning information in the CKPT record that is different and incompatible with that produced in version 4.6 or later.

Do not attempt to restart a checkpointed Process in a different version of Connect:Direct. Delete the checkpointed Process and resubmit it using the appropriate version of Connect:Direct for z/OS.

✦ **Session Management of Adjacent Nodes**
Use the SESS.SNODE.MAX network map parameter only with the TCP/IP and LU6.2 protocols.

✦ **IBM C Program Containing MAIN() or Enclave**
You cannot execute any IBM C program that contains a MAIN() section or enclave as a Run Task or Exit. FTP is an example of this type of program.

✦ **LU6.2 Does not Support Redirection of Processes in Connect:Direct/Plex Environment**
The LU6.2 connection protocol does not support the feature, which allows the Connect:Direct Manager to redirect work to one of its servers. The remote node must address the server on which you want to run an LU6.2 Process. To do this, specify the node name and VTAM address of the Connect:Direct Server on which the Process is to run in the remote server's network map. Use the same CDPLEX.SERVER.NODE and CDPLEX.VTAM specified for the local initialization parameters for the Connect:Direct Server you are trying to address.

✦ **LU0 Does not Support LBI Files**
Connect:Direct cannot transfer LBI files using LU0 connections.

✦ **LBI Block Size Limitations by Record Format and Device Type**
With Connect:Direct for z/OS version 4.8, all LBI BLKSIZEs are supported for all RECFM values. However, when connected to a previous version of Connect:Direct for z/OS, its BLKSIZE limits are still in effect. The following table shows the maximum block sizes for those record formats for which Connect:Direct for z/OS version 4.6 does not support the LBI maximum block size length of 262,144 bytes:

RECFM	BLKSIZE DASD	BLKSIZE TAPEIO=BSAM to tape
F	32760	65535
V	32760	65535
VS/VBS	32760	65535
U	32760	65535

Note: Using TAPEIO=EXCP, Connect:Direct cannot write an LBI format tape and cannot read an LBI format tape with a block size greater than 65535. Consider using TAPEIO=BSAM.

✦ **Copying between Connect:Direct for z/OS and Connect:Direct Windows or UNIX**
When a copy operation is performed between Connect:Direct for z/OS version 4.8 and Connect:Direct Windows version 4.2 or later or Connect:Direct for UNIX version 3.6.01 or later and all of the following conditions are in effect, the Connect:Direct Process can terminate with an SVTO0011 error:

- Connect:Direct for z/OS is sending the file.

- SSL/TLS is enabled for the remote Windows node.

- The SSL/TLS cipher is SSL_RSA_WITH_NULL_MD5.

- Negotiated Comm buffer size is 64K.

To prevent this situation, take one of the following actions:

- Select a different SSL/TLS cipher.

- Reduce the Windows Comm buffer size to 16K.

- Have Connect:Direct Windows initiate the Process.

Connect:Direct Secure+ Option

Connect:Direct Secure+ Option has the following restriction:

✦ Secure connections cannot be established using the following protocols:

- LU0

- PNODE=SNODE

Nonsecure connections operate normally using these protocols.

File Agent

The File Agent component of Connect:Direct has the following known restrictions:

✦ File Agent can detect when VSAM files are created, but not when they are updated.

✦ When watching for a VSAM file, File Agent triggers a Process three times because it detects the creation of the cluster, data, and index portions of the VSAM dataset. To prevent the Process from being triggered unnecessarily when the VSAM cluster, data, and index components are created, append .DATA to the data set name. To see an example involving a VSAM data file, see the *Managing Files with Connect:Direct File Agent* chapter in the *Connect:Direct for z/OS Administration Guide*.

✦ File Agent ignores PDSE data sets in a watch directory.

✦ Do not use the Search tab on the Connect:Direct configuration GUI Help when running the GUI as a z/OS batch job. Using the Search tab on z/OS systems can terminate the configuration GUI session.

✦ To avoid a parsing error when a substitution for a variable would include an open or closing parenthesis, enclose the variable in double quotes.

For example, if **%FA_FILE_FOUND.** is to be passed as the Process Argument &DSN, specify the variable as:

&DSN="%FA_FILE_FOUND."

✦ Some Hummingbird Exceed releases earlier than 9.0 are incompatible with the Help facilities and do not allow you to close the Help windows.

Installation Notes

Before you install Connect:Direct, read all the information in this section and follow the guidelines.

✦ Review the *Connect:Direct for z/OS Installation Guide*, and complete the worksheets prior to installing Connect:Direct for z/OS and its related software.

✦ Review your security configuration to ensure compatibility with Connect:Direct. Refer to the *Connect:Direct for z/OS Installation Guide* for security options.

✦ Verify that you have the current updates for Connect:Direct. Access current update information, including instructions for applying updates containing product fixes and enhancements, from the Customer Center Web site at http://customer.sterlingcommerce.com. See *Obtaining Product Updates* on page 8 for instructions.

✦ For installation instructions for the Sterling External Authentication Server, application refer to the *Sterling External Authentication Server Version 2.0.00 Release Notes*.

Upgrading to Connect:Direct Version 4.8

Review the upgrading considerations for Connect:Direct and its related software before you begin the procedure.

Connect:Direct

Review the following items before upgrading your existing Connect:Direct system:

✦ You must re-assemble and re-link all user exits.

✦ Reassemble and link-edit your security module that uses the DMGSECUR macro to ensure that all enhancements are implemented. To put the new exit into effect, stop and restart Connect:Direct.

✦ After Connect:Direct files have been migrated to version 4.8, using these files with a previous release of Connect:Direct results in the inability to view user comment fields in the network map. If you update the network map using an older version of Connect:Direct, any information stored in the comment fields may be lost.

✦ To ensure above-the-line storage, calculate the difference between the maximum storage values used for BSAM data transfers (as specified by the MAXSTGIO initialization parameter) and change the JOBSTEP region accordingly. For additional information, see *Improving Performance* in the *Connect:Direct for z/OS Administration Guide*.

✦ Performing an upgrade is similar to performing an initial installation. For an upgrade, you can choose to retain some or all of the data files that were created by the initial installation or as a result of the last upgrade.

To retain existing Connect:Direct files when you migrate to version 4.8, use the information in the following table. These files will be required if you need to fall back to the version from which you are upgrading.

Data Set	Migration Considerations
NETMAP file	If you are migrating a network map from Connect:Direct OS/390 Version 4.3 or earlier, unload, delete, reallocate, and reload the network map. For more information, see *Migrating an Existing Network Map* on page 21.

Data Set	Migration Considerations
AUTH, CKPT, and TYPE files	Use IDCAMS REPRO to migrate the data from the old files to the new files.
	For the AUTH file, use this DCB information: DCB=(DSORG=PS,RECFM=VB,LRECL=2052,BLKSIZE=24624)
	For the TYPE file, use this DCB information: DCB=(DSORG=PS,RECFM=VB,LRECL=1934,BLKSIZE=29010)
STATS files	Use IDCAMS REPRO to migrate the data from the old ESDS statistics file to the new ESDS statistics file with this DCB information: DCB=(DSORG=PS,RECFM=VB,LRECL=1604, BLKSIZE=28332). Then use the DMSTBKEY JCL member in $CD.JCL to build the new KSDS from each new ESDS.
MSG file	Because new messages have been added to the MSG file, you must use the version 4.8.00 message file. Any user-defined messages can be loaded using the MSGLOAD JCL in the $CD.JCL installation data set.
Connect:Direct initialization parameters file	After migrating data from a previous release, specify the Connect:Direct initialization parameters TCQ=WARM and STAT.INIT=WARM and attempt the initialization.
	Note: Make sure that all obsolete initialization parameters have been removed before you start up Connect:Direct. See the list of initialization parameters that are obsolete in Connect:Direct for z/OS version 4.8 in *Special Considerations* on page 8.

Migrating an Existing Network Map

To use an existing network map when you migrate to Connect:Direct version 4.8.00, follow this general procedure:

1. Run the JNETUNLD job stream to unload the network map file of your current release by having your UNLOAD DD statement point to your upgrade release CNTL library.

2. Make changes to the initialization parameters, if necessary. Edit your network map source, if necessary, then run JNETDEF to redefine your network map, and JNETLOAD to reload it. For more information on generating and loading the network map, see *Installing Connect:Direct for z/OS* in *Connect:Direct for z/OS Installation Guide*.

3. If you change the name of your network map, make the following changes:

   a. Update your NETDSN initialization parameter, DMBATCH JCL, and ISPF main menu panel (usually ISR@PRIM).

   b. Change the network map name in the MCS.SIGNON initialization parameter.

Connect:Direct Secure+ Option

If you are upgrading from an existing version of the Connect:Direct application, remove references to Connect:Direct Secure+ Option in the ISPLLIB, ISPPLIB, and STEPLIB libraries.

File Agent

To take advantage of the new command line in the latest version of File Agent, you must modify the Java command line parameters after you install the latest version. See *Managing Files with Connect:Direct File Agent* in *Connect:Direct for z/OS Administration Guide* for details on how File Agent works and sample configuration scenarios.

If you are upgrading from an existing version of File Agent, follow this general procedure.

Note: Files recorded in the checkpoint file are treated as if the command line parameters had been active when the files were first discovered. You should not have to delete the checkpoint file.

---

1. Install File Agent into an empty directory.
2. Copy the .ser files from the old to the new File Agent installation directory.
3. Rename the old installation directory to an archive name.
4. Rename the new installation directory to the primary name.

Installing Connect:Direct from the ESD Portal

These instructions contain procedures for downloading and installing the Connect:Direct version 4.8.00 release. The file you download from the Electronic Software Distribution (ESD) Portal is named ESD file. This file is a self-extracting zip file that contains the complete set of installation files for the Connect:Direct for z/OS version 4.8.00 GA release, including the README.TXT file and the documentation files in PDF format. This file is approximately 27 MB.

Downloading Product Files

This procedure assumes that you are downloading the ESD file file to a PC or workstation and then uploading it to your z/OS system.

To download the ESD file file:

1. Click the link to the Download Area in the e-mail from Sterling Commerce.
2. In the **Security Alert** dialog box, click **Yes**.
3. On the Login page, type the following information included in the e-mail:
   ◆ Sterling order number
   ◆ Company name
   ◆ Customer ID

4. Click **Login**. The Download Area is displayed.

5. Find Connect:Direct for z/OS version 4.8.00 and click **Download**.

6. In the **File Download** dialog box, click **Save**.

7. When the **Save As** dialog box opens, specify the location to save the file, or save the ESD file file to your desktop.

Note: If Internet Explorer adds a number in brackets to the name of the downloaded file (for example, CD[1].*platformoruniqueproductname.version*), rename the file on the Windows system before you transfer it in binary mode to the system where it will be installed.

---

8. Double-click the file that you downloaded to extract the files.

9. Upload the CD.ZOS.V4800.BASE.RELEASE file to your z/OS system.

Note: To prevent corruption of the CD.ZOS.V4800.BASE.RELEASE file, you must upload it in **binary** mode.

---

10. Review the CD.ZOS.V4800.BASE.README.TXT file for information about pre-allocating the z/OS file.

Before you begin the installation, download and review the Connect:Direct documentation. See *Connect:Direct Documentation* on page 25 for details.

Unpacking Application Files

To unpack the application files on the z/OS platform:

1. Use the following JCL as a model for creating the JCL to decompress and receive the Connect:Direct for z/OS installation file.

   The TRSMAIN compress/decompress utility used in the JCL is provided by IBM. This utility is available for download from the IBM Support web site at: ftp://ftp.software.ibm.com/s390/mvs/tools/packlib/.

```
//jobname JOB (acct),'name'
//*
//DELETES EXEC PGM=IEFBR14
//PDS     DD DISP=(MOD,DELETE),DSN=your.hlq.INSTALL,
//           UNIT=SYSDA,SPACE=(TRK,(1,1,1))
//UNPACK DD DISP=(MOD,DELETE),DSN=your.hlq.UNPACK,
//           UNIT=SYSDA,SPACE=(TRK,1)
//*
//UNPACK EXEC PGM=TRSMAIN,PARM=UNPACK,COND=(0,NE)
//INFILE DD DISP=SHR,DSN=file.loaded.to.OS.390
//OUTFILE DD DISP=(NEW,CATLG),DSN=your.hlq.UNPACK,
//            UNIT=SYSDA,SPACE=(TRK,(850,150),RLSE)
//STEPLIB DD DISP=SHR,DSN=library.containing.trsmain
//SYSPRINT DD SYSOUT=
//*
//RECEIVE EXEC PGM=IKJEFT01,COND=(0,NE)
//INPUT DD DISP=(OLD,DELETE),DSN=your.hlq.UNPACK
//SYSTSIN DD
  RECEIVE INFILE(INPUT) NONAMES
         DSNAME('your.hlq.INSTALL') RELEASE
//SYSTSPRT DD SYSOUT=
```

The preceding JCL example has three steps, with each step separated by an asterisk (*). The first step verifies that PDS DD and UNPACK DD do not already exist. The second step downloads the compressed file and decompresses it. The third step receives the file into the installation directory. The resulting PDS contains the members described in the following table:

Folder	Description
$INSTALL	Contains the sample JCL to RECEIVE the unloaded members and rebuild the libraries used for installation.
$Readme	Contains this file in .txt format.
FILE01	Contains unloaded library TXLIB.
FILE02	Contains unloaded library LKLIB.
FILE03	Contains unloaded library DATA.
FILE04	Contains unloaded library CICS.LKLIB.

2. Modify $INSTALL to specify your file names and site requirements.

3. Run $INSTALL to build the installation libraries.

Installing the Application

Use the following procedure to install Connect:Direct for z/OS:

1. Review *Connect:Direct for z/OS Version 4.8.00 Release Notes* for last-minute product information and installation requirements.

2. Go to the *Generate the Install JCL through ISPF/PDF* step in Chapter 3 of *Connect:Direct for z/OS Installation Guide* and follow the directions to complete the installation.

Documentation Updates

Connect:Direct for z/OS version 4.8 documentation requires no last-minute updates.

Connect:Direct Documentation

The Connect:Direct documentation is available on the product media or the documentation CD-ROM. You can view or download documentation from the Customer Center Web site at http://customer.sterlingcommerce.com. You need a Support Customer Center user name and password. See *Customer Center Portal User Name and Password* on page 6 for instructions on obtaining your user name and password.

Access to PDF files requires the latest version of Adobe Reader, which you can download at www.adobe.com. You can search for a specific word or phrase in the text of an open Adobe PDF document or a set of PDF documents in a specified location. See the Adobe Reader Help for instructions on using the Search feature. The search lists all instances of the specified string.

The Connect:Direct documentation consists of:

✦ *Connect:Direct for z/OS Administration Guide*

✦ *Connect:Direct for z/OS User's Guide*

✦ *Connect:Direct for z/OS Installation Guide*

✦ *Connect:Direct for z/OS Quick Reference*

✦ *Connect:Direct for z/OS CICS Administration and User's Guide*

✦ *Connect:Direct for z/OS Facilities Guide*

✦ *Connect:Direct Secure+ Option for z/OS Implementation Guide*

✦ *Understanding Connect:Direct Processes*

✦ Connect:Direct File Agent Help

Documentation for the following supplemental products is available on additional distribution media and from the Documentation Library on the Sterling Commerce Support On Demand web site:

✦ Connect:Direct Browser User Interface

✦ Sterling Certificate Wizard

✦ Sterling External Authentication Server

The latest updates to and information on Connect:Direct Processes are available from the Connect:Direct Processes web site at http://www.sterlingcommerce.com/documentation/processes/processhome.html.

The *Connect:Direct Compatibility and Connectivity Chart* contains the latest information about currently supported versions and platforms of Connect:Direct and their compatibility and

connectivity. This document is available as a PDF file from the Customer Center Support On Demand Documentation Library. After you log in to the Customer Center web site, use the following links on the left-hand navigation bar to access the file: **Support On Demand** > **Product Support > Connect > Connect Documentation > Connect:Direct**.

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