



# **IBM Sterling Connect:Enterprise for z/OS Version 1.5.00**

Release Notes



This edition applies to the 1.5.00 Version of IBM Sterling Connect:Enterprise for z/OS and to all subsequent releases and modifications until otherwise indicated in new editions.

Before using this information and the product it supports, read the information in *Notices* on page 43.

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IBM Sterling Connect:Enterprise for z/OS

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# Contents

<b>Requirements</b>	<b>5</b>
Software . . . . .	5
Additional Requirements . . . . .	7
Installation Space Requirements . . . . .	7
Library Allocation . . . . .	9
IBM Sterling Connect:Enterprise Gateway . . . . .	9
License Key File . . . . .	9
<b>What's New in This Release</b>	<b>10</b>
Features and Enhancements . . . . .	10
Improvements and Changes to Documentation . . . . .	12
<b>Special Considerations</b>	<b>12</b>
Using the InterConnect Option Feature . . . . .	12
Adding Batches to a Sterling Connect:Enterprise System Using the CICS User API . . . . .	12
Calling the ISPF Interface Using LIBDEF with ACF2 Security . . . . .	13
Encountering a Problem with an FTP Client . . . . .	13
Changing Automation Packages for Multi-Line Messages . . . . .	13
Maximizing Sterling Connect:Enterprise Performance . . . . .	13
Avoiding Problems When Going Off or On Daylight Savings Time . . . . .	14
Extracting Transparent Data . . . . .	14
Processing the STATFLG Command and STATFLG Instructions . . . . .	14
Using a MIB for SNMP Trap Translations . . . . .	14
Using Sample Members for Offline Utilities . . . . .	15
Using Compressed VSAM Log Files . . . . .	15
Encountering a Shutdown VLF Full Condition . . . . .	16
<b>Known Restrictions</b>	<b>16</b>
Using Sterling Connect:Enterprise in a VIPA Environment . . . . .	17
<b>Installation Notes</b>	<b>17</b>

---

**Upgrading to Sterling Connect:Enterprise for z/OS Version 1.4** **17**

Specify Global BID Format (required) .....	19
Hierarchy of BID Format Processing .....	19
Default Parameter Values Set by DEFAULT_MODE=BID64 .....	21
Default Parameter Values Set by DEFAULT_MODE=BID24 .....	26
Run PURGE utility with INIT=BID64 (required) .....	30
Modify VSAM Server PROC .....	31
Select STOUTL and CSCU/ICO Report Formats .....	31
Customizing the Format for a Single Report .....	32
Setting up a Global Report Format .....	32
Check STOUTL ADD AUTOSEND Records .....	33
Check STOUTL ADD/EXTRACT Log Record Layout .....	33
Select SNA Embedded \$\$DIR Format .....	34
Select BSC Embedded \$\$DIR Format .....	34
Specify LRECL for FTP Client/Server Dialog Traces .....	34
Customize Environment When Acting as an FTP Server .....	34
Customize Environment When Acting as an FTP Client .....	37
Select Display Format for Directory Console Command .....	37
Review and Modify User Exit Programs .....	38
Modify IPS Macros within the CICS User API .....	38
Client Interoperability of other Sterling Products with Version 1.4 .....	40

---

**Upgrading to Sterling Connect:Enterprise for z/OS Version 1.3** **40**

---

**Documentation Updates** **41**

---

**Sterling Connect:Enterprise for z/OS Documentation** **41**

---

**Notices 43**

Trademarks .....	45
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# IBM Sterling Connect:Enterprise for z/OS Version 1.5.00 Release Notes

The *IBM Sterling Connect:Enterprise for z/OS Version 1.5.00 Release Notes* document supplements IBM® Sterling Connect:Enterprise® for z/OS® version 1.5 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 Sterling Connect:Enterprise for z/OS. Read the document in its entirety before installation.

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## Requirements

Your use of Sterling Connect:Enterprise for z/OS version 1.5.00 has the following requirements:

### Software

Sterling Connect:Enterprise requires the following software:

Component or Functionality	Software
Sterling Connect:Enterprise for z/OS	z/OS 1.10 or later for Transport Layer Security (TLS) protocol
	Virtual Storage Access Method (VSAM) file structure
	APF-authorized load libraries
	Assembler H, or the High Level Assembler, to assemble sample Sterling Connect:Enterprise exits
	VTAM or TCP/IP
TCP/IP (for FTP connections)	OS/390 version 2.5 or later using OpenEdition UNIX System Services (does not support SSL)
	OS/390 version 2.7 or later using OpenEdition UNIX System Services (supports SSL)

<b>Component or Functionality</b>	<b>Software</b>
VTAM (for SNA connections)	<p>VTAM version 3.1.1 or later (3.2 or later if you use LU6.2)</p> <p>IBM Advanced Communications Functions for Network Control Program (NCP) version 4.2 or later (4.3 or later if you use LU6.2)</p>
BTAM network (for BSC connections)	<p>BTAM version 1.1.2 with the following PTFs: UY95294, UY85820, UY77697, UY76720, UY76721, OW21005, UW88953</p> <p>When BTAM maintenance is applied, it may be necessary to assemble the module STTC10 and to link module STMAIN. Refer to member ASMTC10 in the sample library for an example of the assembly and link.</p> <p>IBM Advanced Communications Functions for NCP version 4.2 or later</p> <p>If you use the security interface, a security package that supports the System Authorization Facility (SAF) is required.</p>
SNMP Trap Receiver	The trap receiver must be able to interpret SNMP version 2 traps.
ISPF interface	<p>Generation of a VSAM data set at the host location</p> <p>SNA network support for LU6.2 communications</p> <p>ISPF 4.0 or later</p> <p>VTAM 3.2 or later</p>
CICS interface	<p>CICS/TS version 3.1 or later</p> <p>An unrecoverable Temporary Storage Queue</p> <p>Additional Temporary Storage Queues for use with the User API</p> <p>VTAM 3.2 or later</p> <p>SNA network support of LU6.2 communications</p> <p>Generation of a VSAM data set</p> <p>Authorization to execute the following CICS commands:</p> <ul style="list-style-type: none"> <li>◆ All VSAM I/O operation commands including DELETE</li> <li>◆ All Temporary Storage I/O operation commands including DELETEDQ</li> <li>◆ START command</li> <li>◆ All commands that retrieve any task-related data specified in the START command</li> <li>◆ LINK and XCTL commands</li> <li>◆ LOAD command</li> <li>◆ RELEASE command</li> <li>◆ INQUIRE PROGRAM</li> <li>◆ SET PROGRAM NEWCOPY command</li> <li>◆ LINK PROGRAM (DFHEMTA) command</li> </ul>

Component or Functionality	Software
Library requirements	The Sterling Connect:Enterprise VSAM file server must execute from an APF-authorized library.
	To use the InterConnect Option, Sterling Connect:Enterprise must be running from an APF-authorized library.
	To use the security interface, Sterling Connect:Enterprise and offline utilities must be running from an APF-authorized library.
	To use application agents, execute Sterling Connect:Enterprise from an APF-authorized library.
	To use FTP, ensure that the following IBM Language Environment support module libraries are available in the STEPLIB, LNKLST, or LPA: CEE.SCEERUN CBC.SCBCOMP CBC.SCLBDLL
	To use SSL, ensure that the GSK.SGSKLOAD IBM SSL DLL module library is available in the STEPLIB, LNKLST, or LPA.
Direct Access Storage Device (DASD)	Adequate space must be available for all Sterling Connect:Enterprise distribution libraries. See <i>Installation Space Requirements</i> on page 7 for space requirements.

## Additional Requirements

Sterling Connect:Enterprise for z/OS has the following additional requirements.

### Installation Space Requirements

The following table lists the approximate space required by the Sterling Connect:Enterprise libraries.

Sterling Connect:Enterprise Library	Contents	3390 Tracks Required
ENTPRS.EXAMPLE	Sample JCL for installing Sterling Connect:Enterprise.	30
ENTPRS.OBJECT	The Sterling Connect:Enterprise object modules.	430
ENTPRS.SOURCE	Macros required to install Sterling Connect:Enterprise. Only required macros are released in the ENTPRS.SOURCE file.	660
ENTPRS.LOAD	The link-edited Sterling Connect:Enterprise load modules. This library contains all necessary load modules. See the <i>IBM Sterling Connect:Enterprise for z/OS Installation Guide</i> if you later need to run any links.	300

<b>Sterling Connect:Enterprise Library</b>	<b>Contents</b>	<b>3390 Tracks Required</b>
ENTPRS.CICS.LOAD	The link-edited CICS interface load modules for CICS installations.	100
ENTPRS.ISPF.ISPLLIB	Main control program, LU6.2 subtask program, and all options programs for ISPF installations.	150
ENTPRS.ISPF.ISPPLIB	Dialog and Help screen for ISPF installations.	350
ENTPRS.ISPF.ISPSLIB	JCL skeletons for ISPF installations.	15
ENTPRS.ISPF.ISPMLIB	Dialog messages for ISPF installations.	10
ENTPRS.ISPF.ISPTLIB	Input command table for ISPF installations.	2
ENTPRS.ISPF.VSAM	Administrative field data records for ISPF installations.	60
ENTPRS.CECICS.VSAM	Administrative field data records for CICS installations.	220
ENTPRS.MIB	Management Information Base required for SNMP traps.	2



## Library Allocation

You can preallocate the Sterling Connect:Enterprise libraries as defined in the following table, or use the JCL available in the chapter about unloading the distribution tape in the *IBM Sterling Connect:Enterprise for z/OS Installation Guide* to allocate the libraries during the UNLOAD. You can name each library according to your internal naming conventions. All documentation examples use the following names:

DSN	FORMAT	LRECL	BLKSIZE	DIR. BLOCKS
ENTPRS.EXAMPLE	FB	80	6320	30
ENTPRS.OBJECT	FB	80	3200	250
ENTPRS.SOURCE	FB	80	6320	150
ENTPRS.LOAD	U	0	6144	75
ENTPRS.MIB	VB	256	32760	Not applicable

## IBM Sterling Connect:Enterprise Gateway

To implement IBM® Sterling Connect:Enterprise® Gateway, at least one of the following is required:

- ◆ Sterling Connect:Enterprise for z/OS support for VTAM, with Sterling Connect:Enterprise Gateway acting as SNA PU Type 2 device through VTAM
- ◆ Sterling Connect:Enterprise for z/OS support for SSL or native FTP with Sterling Connect:Enterprise Gateway acting as FTP client and/or FTP server with Sterling Connect:Enterprise for z/OS

See *IBM Sterling Connect:Enterprise Gateway Version 2.1.00 Release Notes* for a complete description of hardware and software product requirements.

## License Key File

Prior to Version 1.5, Sterling Connect:Enterprise for z/OS required an AP Key file (also known as an asset protection key, license management key, or license key). Sterling Connect:Enterprise for z/OS no longer requires an AP key file. As a result, the APDSN \*OPTIONS parameter is not required. You can run Sterling Connect:Enterprise for z/OS with the APDSN parameter still specified in the Options Definition File (ODF) but the following message will be displayed:

```
CMB902I - ODF parameter APDSN= is obsolete. Remove this parameter from the Options Definition File.
```

To prevent the CMB902I message from displaying, remove or comment out this parameter.

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# What's New in This Release

For the latest information on updates to the product and documentation, see *Features and Enhancements* on page 10 and *Improvements and Changes to Documentation* on page 12.

## Features and Enhancements

Sterling Connect:Enterprise for z/OS version 1.5.00 and its related software have the following features and enhancements.

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**Note:** General documentation references for information on particular features are included in the table below. To do a more thorough search for information on a particular feature, you can search a collection of PDFs in a directory. For a list of documents, see *Sterling Connect:Enterprise for z/OS Documentation* on page 41.

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### Feature or Enhancement

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Record more information to help monitor the system:

- ◆ Provides a new user message table for user-specified return codes associated with CMAnnn messages in the ICO (Inter-Connect Option) and CSC (Cross System Client) environment (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utilities*)
  - ◆ Provides information on local and remote IP addresses and port numbers when listing all batches handled by remote connection. This new information appears in both the online Remote Connect Detail display and in two new STOUTL reports (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utilities*)
  - ◆ Provides a new parameter which will wrap data in a long VBQ data record across two or more shorter OUTFILE records to prevent the truncation of information. This new functionality effects the CSC/ICO and STOUTL Extract utilities (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utility Parameters*)
  - ◆ Provides information on a Sterling Connect:Enterprise z/OS FTP server's batch record count in a new FTP directory listing format to the remote FTP client (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)
  - ◆ Provides ability to monitor and view certificate expiration dates in an SSL or TLS environment within Sterling Connect:Enterprise (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)
  - ◆ Provides information on the number of slots allocated to the APPC List, which can be very useful for high-activity systems (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring \*OPTIONS Record for System Resources*)
  - ◆ Provides more detailed information to diagnose shutdown hangs while the FTP thread is hung and STMAIN is still up, in SNAPOUT (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Diagnostics*)
  - ◆ Activates CP trace table to capture additional diagnostic information in the CP task including the basic execution path (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Diagnostics*)
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**Feature or Enhancement**


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Improve and expand use:

- ◆ Provides more flexibility when naming a local file during FTP Client MGET processing and when selecting an IP address for a PASV data connection by adding new ODF parameters (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)
- ◆ Provides the ability to select up to 200 mailbox IDs used when processing data for STOUTL Report functions (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utility Parameters*)
- ◆ Provides an additional method for selecting mailbox IDs to process in STOUTL utilities and the Application Agent by using wildcards, which allows you to substitute wildcard characters for one or more characters in a string (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utility Parameters*)
- ◆ Provides the ability to turn off the default automatic creation of directory listing batches whenever Sterling Connect:Enterprise Auto Connect script issues a DIR, LIST, or NLST command (refer to *skip batch create feature* in *IBM Sterling Connect:Enterprise for z/OS Administration Guide*)
- ◆ Expand the flexibility of Auto Connect sessions by providing the ability to enable or disable a listname via a console command and the ISPF/CICS interfaces. Also adds a new \$\$LIST console option that will list the statuses of listnames (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Console Commands*)
- ◆ Provides additional functionality to the STOUTL and CSC/ICO EXTRACT functions to limit the number of hex record separators processed. After the user-specified number of record separators have been processed, all subsequent remaining matching record separator characters are treated as user data (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utility Parameters*)
- ◆ Extends the functionality of the RECSEP parameter, which allows you to specify the record separators searched for as the record delimiter when processing data to the output file, to the Inter-Connect Option (ICO) and Cross System Client (CSC) EXTRACT functions (*IBM Sterling Connect:Enterprise for z/OS User's Guide, Offline Utility Parameters*)
- ◆ Provides the ability to limit the number of FTP clients that can log onto a particular remote Sterling Connect:Enterprise FTP server or all Sterling Connect:Enterprise FTP servers (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)
- ◆ Provide more flexibility when returning name lists by controlling whether the Sterling Connect:Enterprise FTP server uses single quotes to delimit the start/end of the user batch ID (file name) by using new \*OPTIONS or \*REMOTES parameters or a new SITE command parameter to allow a remote FTP client to control this feature (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)
- ◆ Provides the ability to transmit and collect empty batches using FTP (*IBM Sterling Connect:Enterprise for z/OS Administration Guide, Configuring ODF Records for FTP Connections*)

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Improve performance and high availability:

- ◆ Provides instant access to information on batch status counts by reading only the VCF master control record (refer to *Displaying a Quick Summary of Batch Number Statistics* in *IBM Sterling Connect:Enterprise for z/OS ISPF User's Guide* or *IBM Sterling Connect:Enterprise for z/OS CICS User's Guide*)
-

## Improvements and Changes to Documentation

As part of our continuing effort to improve the user experience and satisfaction with our documentation, the documentation for Sterling Connect:Enterprise for z/OS version 1.5 has the following changes:

- ◆ Because a license key is no longer required to run Sterling Connect:Enterprise for z/OS, Chapter 1, *Asset Protection Error Messages*, has been removed from the *IBM Sterling Connect:Enterprise for z/OS Messages and Codes Guide*.
- ◆ To simplify the documentation set, the overview chapter, *About Sterling Connect:Enterprise for z/OS*, and the glossary, which appeared in several books, have been updated and are consolidated into one book only—the *IBM Sterling Connect:Enterprise for z/OS User's Guide*.

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## Special Considerations

This section contains considerations in addition to the procedures contained in this document and the other Sterling Connect:Enterprise for z/OS documents. Refer to the following notes before installing the product.

### Using the InterConnect Option Feature

The products formerly known as Connect:Enterprise and Connect:Direct have been transitioned to reflect the IBM Corporation brand and logo, and those products are now referred to as IBM Sterling Connect:Enterprise for z/OS and IBM® Sterling Connect:Direct® for z/OS® (or shortened to simply Sterling Connect:Enterprise and Sterling Connect:Direct). In addition to the product name changes, beginning with Sterling Connect:Direct version 5.1, the names of Sterling Connect:Direct elements, such as modules, datasets, and Process names have changed significantly. However, the old names will continue to work even if you are using Sterling Connect:Direct version 5.1 or later because the system will automatically locate the corresponding new element name in the new dataset. For more information, refer to *Using InterConnect Option with All Versions of Sterling Connect:Direct* in the *IBM Sterling Connect:Enterprise for z/OS InterConnect Option User's Guide*.

### Adding Batches to a Sterling Connect:Enterprise System Using the CICS User API

If you have a CICS user-written program, which adds batches to a Sterling Connect:Enterprise for z/OS system (Version 1.4 or later) using the C\$A20 request code, you must modify the program to set a new flag and field by including the following two fields in the DSECT:

- ◆ Field A20STRU- set flag A2064SET to indicate field A20UBID64 is filled in.
- ◆ Field A20UBID64- set with the User Batch ID (left justified and blank filled).

For more information, refer to *Using the Add Transaction* in the *IBM Sterling Connect:Enterprise for z/OS Application Agents and User Exits Guide*.

## Calling the ISPF Interface Using LIBDEF with ACF2 Security

Beginning with Sterling Connect:Enterprise Version 1.1.00, the following LIBDEF example member was updated, and PGM was deliberately changed to CMD to enable the dialog to function properly:

```
ISPEXEC SELECT CMD(MZMCP001) NEWAPPL(MZI) PASSLIB
```

CMD allows LINK/LOAD/XCTL routines to be executed and finds modules in the LIBDEF concatenation. With PGM, all programs must be called using the ISPF SELECT service.

If you have ACF2, it must also be included in your command limiting table.

## Encountering a Problem with an FTP Client

Because there are numerous third party FTP clients, some of them may not be compatible with a change in the sequence of processing PASV commands resulting from FIX 38424 (SR 1368886). If after installing this fix, you have problems with a particular FTP client while using PASV, this sequence change can be reverted back to the old method using the following ODF parameters:

```
*OPTIONS FTP_DEFAULT_SERVER_PASV_IMMED_ACCEPT=NO
*REMOTE TYPE=FTP_CLIENT PASV_IMMED_ACCEPT=NO
```

## Changing Automation Packages for Multi-Line Messages

Because the number of lines in Messages CMB600I and CMB601E has changed, review your automation package to properly identify these messages and accommodate longer batch IDs, if necessary. The CMB600I message changed from three to four lines; CMB601E changed from a single line message to a three-line message. To see the specific wording of these messages, see Chapter 4, *Online System Console Messages*, in *IBM Sterling Connect:Enterprise for z/OS Messages and Codes Guide*.

## Maximizing Sterling Connect:Enterprise Performance

To maximize performance, execute Sterling Connect:Enterprise and the VSAM file server as non-swappable tasks in a high-performance group. Periodically monitor the storage used by Sterling Connect:Enterprise during peak activity (time during the largest number of concurrent sessions). If the amount of requested storage approaches the amount allocated to the job, increase the value specified in the REGION parameter on the EXEC statement.

The primary factors affecting storage requirements are as follows:

- ◆ Number of sessions concurrently running
- ◆ Size of the SEND/RECEIVE buffers obtained for each connection

The value of the ODF parameter `FTP_MAX_CLIENT_THREADS` sets the maximum allowed number of concurrent FTP client sessions. Sterling Connect:Enterprise uses this value upon initialization to build the correct number of FTP client subtasks, each with its own REXX Language Processor Environment. By design, z/OS searches the STEPLIB before it searches the Link Pack Area (LPA). If the STEPLIB is present, it can add overhead to FTP client processing. The more Sterling Connect:Enterprise clients that run concurrently, the more this overhead is noticeable. You can run up to 20 concurrent sessions without performance degradation. However, more than 20 sessions can impact optimum performance. To run more than 20 concurrent FTP client sessions, you may consider removing the STEPLIB DD from the Sterling Connect:Enterprise main JCL, and putting the Sterling Connect:Enterprise load library in the LINKLIST to improve performance.

## Avoiding Problems When Going Off or On Daylight Savings Time

During the one-hour window immediately after turning the system clock back in autumn or forward in spring, duplicate log record errors may occur. You can stop your system for the one-hour transition time to avoid potential problems.

## Extracting Transparent Data

In order to extract transparent batches using the STOUTL EXTRACT utility, `TRANSP=YES | BOTH` must be specified. If `TRANSP=NO` is specified (or the parameter is omitted), transparent batches will not be selected. Prior to this release (Sterling Connect:Enterprise for z/OS version 1.3.00), if `RECSEP=Tnnnnn` was specified, transparent batches were erroneously selected, even if `TRANSP=YES | BOTH` was not specified. This behavior has been corrected. Please review any STOUTL EXTRACT jobs that may be affected and make changes accordingly.

## Processing the STATFLG Command and STATFLG Instructions

The STOUTL STATFLG command and Application Agent STATFLG instructions are processed differently in Sterling Connect:Enterprise for z/OS version 1.3 and earlier versions of Sterling Connect:Enterprise:

- ◆ In Sterling Connect:Enterprise for z/OS version 1.3, you can specify the same status (Requestable, Deleted, Transmitted, Extracted, Multi-transmittable) for both the ONFLAGS and OFFFLAGS parameters. For earlier versions of Sterling Connect:Enterprise, the Application Agent STATFLG instruction did not allow redundant values in the ONFLAGS and OFFFLAGS parameters. For example, previously you could not specify `STATFLG ONFLAGS=(R,D,T), OFFFLAGS=(R,D,T)`, but in version 1.3, you can.
- ◆ In Sterling Connect:Enterprise for z/OS version 1.3, if both the ONFLAGS and OFFFLAGS parameters are used, the flags are processed in the order specified in the input control card or instruction. For earlier versions of Sterling Connect:Enterprise, ONFLAGS was always processed first, regardless of the order specified.

## Using a MIB for SNMP Trap Translations

If you are using the Management Information Base (MIB) provided with Sterling Connect:Enterprise to decode OIDs and suspect that you may not have the most recent MIB, contact IBM Support. Other IBM products, such as IBM® Sterling Control Center and IBM® Sterling

Connect:Direct®, also contribute additions to the common MIB, and releases for these and other products occur at different times.

## Using Sample Members for Offline Utilities

A sample member for each offline utility function is provided in the EXAMPLE library. To avoid conflicts with existing IBM macro names, these example member names have been renamed, and all begin with the prefix, X, for example, XADD, XDELETE, and so on.

## Using Compressed VSAM Log Files

To reduce the amount of space used, VSAM log files can be defined to use compression.

---

**Note:** Use compression only for VLF files.

---

A compressed VSAM file must be an SMS-managed data set. This usually requires one of the qualifiers in the data set name to be a specific value, as defined by your systems programmer. For example, your Sterling Connect:Enterprise VSAM file-naming convention might be similar to the following example:

```
ENTRPRS.VPF
ENTRPRS.VCF
ENTRPRS.VBQ01
...
ENTRPRS.VBQ20
ENTRPRS.VLF1
...
ENTRPRS.VLF8
```

If you are required to specify a particular qualifier in the name that identifies it as an SMS-managed data set, your VSAM file-naming convention would change to include the second qualifier, as shown in the following example:

```
ENTRPRS.SMSTEST.VLF1
...
ENTRPRS.SMSTEST.VLF8
```

The IDCAMS control statements defining each log file must also be modified to specify the DATACLAS(xxxxxxxx). These control statements are used to associate each file with certain attributes, one of which identifies the files as being eligible for compression. Obtain the appropriate DATACLAS value from your systems programmer.

The following IDCAMS example illustrates defining compression using the qualifiers and control statements listed.

```

/***** DEFINE VLF1 FILE *****/
DEFINE CLUSTER -
  (NAME (ENTRPRS.SMSTEST.VLF1) -
  DATACLASS (DATACOMP) -
  CYL (100 50) -
  REUSE -
  SHAREOPTIONS (2) -
  KEYS (18 0) -
  RECSZ (1024 1024)) -
DATA -
  (NAME (ENTRPRS.SMSTEST.VLF1.DATA)) -
INDEX -
  (NAME (ENTRPRS.SMSTEST.VLF1.INDEX))

```

After the VLFs are defined to use compression, there are no other special requirements. File compression is transparent to any application that requests I/O at only the VSAM record level. Because Sterling Connect:Enterprise issues all I/O at the VSAM record level, file compression is transparent to the product.

## Encountering a Shutdown VLF Full Condition

The system automatically shuts down when the current VLF becomes full, and VLF rotation cannot occur because the other VLF is either already full or is not allocated to Sterling Connect:Enterprise. When this VLF full condition occurs, any in-progress connections are allowed to finish prior to the shutdown, but no new activity is allowed to start.

The following warning message is issued at 5-minute intervals after the file reaches a user-specified log file full percentage value specified in the Options Definition File (ODF) using the VLPCT=nn parameter. The default value is 50 percent.

```
CMB156W - WARNING: LOG FILE xxxx IS nnn PERCENT FULL, EXTENT #nnn+
```

The following console messages are issued immediately prior to shutdown:

```
CMB707E - NO SPACE AVAILABLE ON VSAM LOG FILES. SYSTEM WILL SHUT DOWN.
CMB012I - SHUTDOWN REQUEST ACCEPTED.
```

## Known Restrictions

Sterling Connect:Enterprise for z/OS version 1.5 and its related software have the following restrictions related to the use of third-party hardware or software with Sterling Connect:Enterprise for z/OS.



## Using Sterling Connect:Enterprise in a VIPA Environment

Some firewall software packages do not allow two different IP addresses to be opened for the same FTP session. If you use Virtual Internet Protocol Addressing (VIPA) or Dynamic VIPA (DVIPA) in your environment and you need to establish FTP Sessions that require the Data Port IP Address be the same as the Control Port IP Address, you must include a Host name or IP Address in the \*OPTIONS ODF FTP\_SERVER\_CONTROL\_PORT parameter.

If you are using Sterling Connect:Enterprise in a VIPA or DVIPA environment with IBM® Sterling Secure Proxy, you must set the host name in the FTP\_SERVER\_CONTROL\_PORT parameter. This issue will be addressed in a Sterling Secure Proxy Maintenance patch (SR 1370013) for Version 3.0.01. When the patch is applied, you will no longer need the host name (assuming your firewall allows different IP addresses for the Control and Data connections).

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## Installation Notes

Before you install Sterling Connect:Enterprise for z/OS, read all the information in this section and follow the guidelines.

- ◆ Review the *IBM Sterling Connect:Enterprise for z/OS Installation Guide*, and complete the worksheets prior to installing Sterling Connect:Enterprise for z/OS and its related software.
- ◆ Review your security configuration to ensure compatibility with Sterling Connect:Direct. Refer to the *IBM Sterling Connect:Enterprise for z/OS Installation Guide* for security options.
- ◆ Verify that you have the current updates for Sterling Connect:Enterprise for z/OS. Access current update information, including instructions for applying updates containing product fixes and enhancements, from the [IBM® Sterling Customer Center Web site](#). See *Special Considerations* on page 12 for instructions.
- ◆ For installation instructions for the Sterling External Authentication Server application, refer to the latest *IBM Sterling External Authentication Server Release Notes*.

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## Upgrading to Sterling Connect:Enterprise for z/OS Version 1.4

Beginning with Sterling Connect:Enterprise for z/OS Version 1.4, the User Batch ID was expanded from 24 to 64 characters. Each batch is now stored in the database (that is, VPF and VCF batch control records) as a 64-character value.

One of the major considerations of the expanded BID64 feature is that many existing users already have business processes in place, which are oriented to and depend upon, a 24-character Batch ID. It may be necessary for individual Sterling Connect:Enterprise installation sites to continue using a 24-character naming convention for some time until processes can be modified to fully integrate a 64-character naming convention into their systems.

Although each batch ID is now stored internally as a 64-character value, every aspect of the product can be fully controlled to "effectively" restrict a batch ID to 24-characters. These BID24 | BID64 controls can be activated at a system-wide global level (using ODF \*OPTIONS parameters) or at a

more granular local level (using ODF \*REMOTES, SYSIN, or embedded \$\$ command parameters).

Information on batches including user batch IDs (BIDs) can be printed and displayed in several console displays and hardcopy reports. In addition, you can use BIDs to both name and select batches. To accommodate the different lengths of user Batch IDs, Sterling Connect:Enterprise provides a variety of parameters and commands to control how user batch IDs are presented both on a global default basis and on a more specific case-by-case basis to customize individual reports or displays.

The parameters and commands you can use to customize your user Batch ID displays depend on a variety of factors such as:

- ◆ The protocol being used for sessions (FTP, SNA, or BSC)
- ◆ The Sterling Connect:Enterprise applications being used and their related platforms (IBM® Sterling Connect:Enterprise® Secure Client, IBM® Sterling Connect:Enterprise® Command Line Client, Sterling Connect:Enterprise for z/OS, Sterling Connect:Enterprise for UNIX)

Depending on how you use Sterling Connect:Enterprise, you can specify the user Batch ID format for your environment in a variety of ways including the following methods:

- ◆ Parameters in the Options Definitions File (ODF) to define the default BID formats
- ◆ SYSIN input control cards when running STOUTL or CSC/ICO utilities to override ODF defaults for a particular utility
- ◆ SITE command's DIRFORM parameter to customize the layout of information returned by the LIST command
- ◆ \$\$ commands to list batch information on a console

To upgrade from an existing version of the Sterling Connect:Enterprise for z/OS application, you must complete the first two procedures listed below to specify which BID format you want to use as a global default and to initialize and convert your VSAM Pointer file (VPF) and VSAM Control file (VCF) for use in the new 64-character user BID system. Other procedures are either protocol-specific or depend on the Sterling Connect:Enterprise components you use, such as user exit programs or \$\$ console commands. The last procedure is for those users who want to upgrade to the new version but continue running Sterling Connect:Enterprise for z/OS with 24-character user BIDs.

- ◆ *Specify Global BID Format (required)* on page 19
- ◆ *Run PURGE utility with INIT=BID64 (required)* on page 30
- ◆ *Modify VSAM Server PROC* on page 31 (optional)
- ◆ *Select STOUTL and CSCU/ICO Report Formats* on page 31 (optional)
- ◆ *Check STOUTL ADD AUTOSEND Records* on page 33 (optional)
- ◆ *Check STOUTL ADD/EXTRACT Log Record Layout* on page 33 (optional)
- ◆ *Select SNA Embedded \$\$DIR Format* on page 34 (optional)
- ◆ *Select BSC Embedded \$\$DIR Format* on page 34 (optional)
- ◆ *Specify LRECL for FTP Client/Server Dialog Traces* on page 34 (optional)
- ◆ *Customize Environment When Acting as an FTP Server* on page 34 (optional)

- ◆ *Customize Environment When Acting as an FTP Client* on page 37 (optional)
- ◆ *Select Display Format for Directory Console Command* on page 37 (optional)
- ◆ *Review and Modify User Exit Programs* on page 38 (optional)
- ◆ *Modify IPS Macros within the CICS User API* on page 38 (optional)

## Specify Global BID Format (required)

In addition to the APDSN=data.set.name and VPF='data.set.name' parameters, the new parameter, DEFAULT\_MODE, is required to initialize the product and must be specified in the \*OPTIONS record of the Options Definition File (ODF). After you select the mode (BID24 or BID64) to use throughout your system as the default BID format, refer to the appropriate table below for information about the 15 ODF parameters set by the DEFAULT\_MODE parameter.

These parameters determine the format Sterling Connect:Enterprise uses for the user batch ID (BID) in displays, reports, and batch naming during collection. You can override some parameters for individual remote sites by specifying a customized value in a particular \*REMOTES record as indicated in the second column.

## Hierarchy of BID Format Processing

You can override the global DEFAULT\_MODE value in any of the individual parameters. For example, if you set DEFAULT\_MODE=BID64 but wanted to run most STOUTL utilities using the legacy pre-Version 1.4 report format, you would specify BID24 for the STOUTL\_DEFAULT\_REPORTS\_FORMAT parameter in the ODF. In addition, if you wanted to run only the ADD utility using the BID64 format, you would include the new SYSIN FORMAT parameter in the ADD utility's input control records and specify 1 as the format.

Sterling Connect:Enterprise looks for format instructions using the following hierarchy to define the order of precedence, from highest to lowest, in which settings for the BID format are applied:

- ◆ Embedded data, such as \$\$DIR FORMAT=BID24|BID64 commands in data files
- ◆ SYSIN FORMAT parameter in a particular utility's input control record,s such as the ADD utility example above
- ◆ Parameters in a specific \*REMOTES record in the ODF, such as the DIRFORM parameter for a particular FTP client
- ◆ Individual parameters in the \*OPTIONS record in the ODF to define the format for a particular component, such as FTP\_DEFAULT\_CLIENT\_LOCDIRFORM for all FTP clients
- ◆ Global DEFAULT\_MODE parameter in the \*OPTIONS record in the ODF

The two spreadsheets in this section summarize the order in which Sterling Connect:Enterprise processes BID format instructions. The first table lists the default values for the 15 ODF parameters if BID64 is specified for the DEFAULT\_MODE \*OPTIONS parameter while the second table lists the values for DEFAULT\_MODE=BID24. To read the table in order of precedence from highest to lowest, start with the rightmost column labeled Data Override and work through the different levels to the global DEFAULT\_MODE value shown in the second column, Assumes Default Value.

## More Information on Parameters Related to BID Formats

For more information on parameters related to BID formats in both the \*OPTIONS and \*REMOTES records in the ODF, see the *IBM Sterling Connect:Enterprise for z/OS Administration Guide*. For more information on using the FORMAT parameter in offline, CSC, and ICO utilities, see the *IBM Sterling Connect:Enterprise for z/OS User's Guide*. Also, see *Select STOUTL and CSCU/ICO Report Formats* on page 31.

## Default Parameter Values Set by DEFAULT\_MODE=BID64

DEFAULT_MODE = BID64					
*OPTIONS Parameter	Assumes Default Value	Parameter Function	*REMOTES Parameter	SYSIN Override	Data Override
FTP_DEFAULT_CLIENT_BCHSEP_ NONE_FILENAME_FORMAT=	BID64	Specifies the file name format used by the Sterling Connect:Enterprise for z/OS Client STOR or PUT command when BCHSEP=NONE.	n/a	n/a	n/a
FTP_DEFAULT_CLIENT_BCHSEP_ OPT3_FILENAME_FORMAT=	BID64	Specifies the file name format used by the Sterling Connect:Enterprise for z/OS Client STOR or PUT command when BCHSEP=OPT3.	n/a	n/a	n/a
FTP_DEFAULT_SERVER_BCHSEP_ NONE_FILENAME_FORMAT=	BID64	Specifies the file name format used by the Sterling Connect:Enterprise for z/OS Server in response to a NLST command from the remote client, when BCHSEP=NONE.	n/a	n/a	n/a
FTP_DEFAULT_SERVER_BCHSEP_ OPT3_FILENAME_FORMAT=	BID64	Specifies the file name format used by the Sterling Connect:Enterprise for z/OS Server in response to a NLST command from the remote client, when BCHSEP=NONE.	n/a	n/a	n/a

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**DEFAULT\_MODE = BID64**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
FTP_DEFAULT_RECEIVE_OPTION_RENAME=	FIRST64	Specifies the file name (User Batch ID) used by the Sterling Connect:Enterprise for z/OS FTP Server, when creating batches sent from the remote FTP client, when the *REMOTE TYPE=FTP_CLIENT RECEIVE_OPTION_RENAME value is not set.	TYPE=FTP_CLIENT RECEIVE_OPTIONS=(RENAME=	n/a	n/a
FTP_DEFAULT_SERVER_DIRFORM=	MBOX_ZOS64	Specifies a global default value of how the Sterling Connect:Enterprise FTP server formats and returns directory list replies to the remote FTP client, in response to the LIST and NLST command.	TYPE=FTP_CLIENT DIRFORM=	n/a	n/a
FTP_DEFAULT_CLIENT_LOCDIRFORM=	MBOX_ZOS64	Specifies a global default value of how the Sterling Connect:Enterprise FTP client formats and returns local directory lists in locdir.n variables returned to the REXX ACSCRIPT.	n/a	n/a	n/a

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**DEFAULT\_MODE = BID64**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
FTP_DEFAULT_CLIENT_REMOTE_FILENAME_LENGTH=	LONG64	Specifies the format of the file name created by the Sterling Connect:Enterprise FTP Client when sending data to the remote FTP server using the STOR or PUT command. Specification of this parameter defines the default value for each session. The value of this parameter may be changed within an AC SCRIPT by using the locsite command. Specifying this parameter defines the default value to use when the *REMOTES TYPE=FTP_SERVER REMOTE_FILENAME_LENGTH parameter is not set.	TYPE=FTP_SERVER REMOTE_FILENAME_LENGTH= SHORT   LONG   LONG64	n/a	n/a
FTP_DEFAULT_SERVER_REMOTE_FILENAME_LENGTH=	LONG64	Specifies the format of the file name created by the Sterling Connect:Enterprise FTP Server returned in an NLST reply, when BCHSEP=OPT4 is used. Specifying this parameter defines the default value to use when the *REMOTES TYPE=FTP_CLIENT REMOTE_FILENAME_LENGTH parameter is not set.	TYPE=FTP_CLIENT REMOTE_FILENAME_LENGTH= SHORT   LONG   LONG64	n/a	n/a

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**DEFAULT\_MODE = BID64**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
STOUTL_DEFAULT_REPORTS_FORMAT=	1X	Specifies the default reports format for the STOUTL REPORTS DD file. This parameter allows the normal STOUTL SYSIN default value to be overridden to a preferred default value.	n/a	FORMAT= 1   1X   2	n/a
CSC_DEFAULT_REPORTS_FORMAT=	1X	Specifies the default reports format for the CSC (Cross System Client) SYSPRINT and REPORTS DD files. This parameter allows the normal CSC SYSIN default value to be overridden to a preferred default value.	n/a	FORMAT= 1   1X   2	n/a
ICO_DEFAULT_REPORTS_FORMAT=	1X	Specifies the default reports format for the ICO (Inter-Connect Option) SYSPRINT and REPORTS DD files. This parameter allows the normal ICO SYSIN default value to be overridden to a preferred default value.	n/a	FORMAT= 1   1X   2	n/a
BSC_DEFAULT_\$\$DIR_FORMAT=	BID64	Specifies how Sterling Connect:Enterprise will format the reply to a \$\$DIR command during a Bisync session.	n/a	n/a	\$\$DIR FORMAT=BID24   BID64

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**DEFAULT\_MODE = BID64**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
SNA_DEFAULT_\$\$DIR_FORMAT=	BID64	Specifies how Sterling Connect:Enterprise will format the reply to a \$\$DIR command during an SNA session.	TYPE=LU1RJE \$\$DIR_FORMAT=BID24   BID64	n/a	\$\$DIR_FORMAT=BID24   BID64
FTP_DEFAULT_DIALOG_TRACE_LRECL=	136	Specifies the LRECL of the FTP DIALOG trace files. Each file is allocated using RECFM=VBA (Variable, Blocked, ANSI print control character). Valid values are 136–32756.	n/a	n/a	n/a

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## Default Parameter Values Set by DEFAULT\_MODE=BID24

DEFAULT_MODE = BID24					
*OPTIONS Parameter	Assumes Default Value	Parameter Function	*REMOTES Parameter	SYSIN Override	Data Override
FTP_DEFAULT_CLIENT_BCHSEP_NONE_FILENAME_FORMAT=	BID24	Specifies the file name format used by the Sterling Connect:Enterprise Client STOR or PUT command when BCHSEP=NONE.	n/a	n/a	n/a
FTP_DEFAULT_CLIENT_BCHSEP_OPT3_FILENAME_FORMAT=	BID24	Specifies the file name format used by the Sterling Connect:Enterprise Client STOR or PUT command when BCHSEP=OPT3.	n/a	n/a	n/a
FTP_DEFAULT_SERVER_BCHSEP_NONE_FILENAME_FORMAT=	BID24	Specifies the file name format used by the Sterling Connect:Enterprise Server in response to a NLST command from the remote client, when BCHSEP=NONE.	n/a	n/a	n/a

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**DEFAULT\_MODE = BID24**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
FTP_DEFAULT_SERVER_BCHSEP_OPT3_FILENAME_FORMAT=	BID24	Specifies the file name format used by the Sterling Connect:Enterprise Server in response to a NLST command from the remote client, when BCHSEP=NONE.	n/a18	n/a	n/a
FTP_DEFAULT_RECEIVE_OPTION_RENAME=	FIRST24	Specifies the file name (User Batch ID) used by the Sterling Connect:Enterprise FTP Server, when creating batches sent from the remote FTP client, when the *REMOTE TYPE=FTP_CLIENT RECEIVE_OPTION_RENAME value is not set.	TYPE=FTP_CLIENT RECEIVE_OPTIONS=(RENAME=	n/a	n/a
FTP_DEFAULT_SERVER_DIRFORM=	MBOX_ZOS	Specifies a global default value of how the Sterling Connect:Enterprise FTP server formats and returns directory list replies to the remote FTP client, in response to the LIST and NLST command.	TYPE=FTP_CLIENT DIRFORM=	n/a	n/a

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**DEFAULT\_MODE = BID24**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
FTP_DEFAULT_CLIENT_LOCDIRFORM=	MBOX_ZOS	Specifies a global default value of how the Sterling Connect:Enterprise FTP client formats and returns local directory lists in locdir.n variables returned to the REXX ACSCRIPT.	n/a	n/a	n/a
FTP_DEFAULT_CLIENT_REMOTE_FILENAME_LENGTH=	LONG	Specifies the format of the file name created by the Sterling Connect:Enterprise FTP Client when sending data to the remote FTP server using the STOR or PUT command. Specification of this parameter defines the default value for each session. The value of this parameter may be changed within an AC SCRIPT by using the locsite command. Specifying this parameter defines the default value to use when the *REMOTES TYPE=FTP_SERVER REMOTE_FILENAME_LENGTH parameter is not set.	TYPE=FTP_SERVER REMOTE_FILENAME_LENGTH=SHORT   LONG   LONG64	n/a	n/a

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**DEFAULT\_MODE = BID24**

<b>*OPTIONS Parameter</b>	<b>Assumes Default Value</b>	<b>Parameter Function</b>	<b>*REMOTES Parameter</b>	<b>SYSIN Override</b>	<b>Data Override</b>
FTP_DEFAULT_SERVER_REMOTE_FILENAME_LENGTH=	LONG	Specifies the format of the file name created by the Sterling Connect:Enterprise FTP Server returned in an NLST reply, when BCHSEP=OPT4 is used. Specifying this parameter defines the default value to use when the *REMOTES TYPE=FTP_CLIENT REMOTE_FILENAME_LENGTH parameter is not set.	TYPE=FTP_CLIENT REMOTE_FILENAME_LENGTH=SHORT   LONG   LONG64	n/a	n/a
STOUTL_DEFAULT_REPORTS_FORMAT=	1	Specifies the default reports format for the STOUTL REPORTS DD file. This parameter allows the normal STOUTL SYSIN default value to be overridden to a preferred default value.	n/a	FORMAT= 1   1X   2	n/a
CSC_DEFAULT_REPORTS_FORMAT=	1	Specifies the default reports format for the CSC (Cross System Client) SYSPRINT and REPORTS DD files. This parameter allows the normal CSC SYSIN default value to be overridden to a preferred default value.	n/a	FORMAT= 1   1X   2	n/a

DEFAULT_MODE = BID24			
*OPTIONS Parameter	Assumes Default Value	Parameter Function	*REMOTES Parameter
ICO_DEFAULT_REPORTS_FORMAT=	1	Specifies the default reports format for the ICO (Inter-Connect Option) SYSPRINT and REPORTS DD files. This parameter allows the normal ICO SYSIN default value to be overridden to a preferred default value.	n/a
BSC_DEFAULT_\$\$DIR_FORMAT=	BID24	Specifies how Sterling Connect:Enterprise will format the reply to a \$\$DIR command during a Bisync session.	n/a
SNA_DEFAULT_\$\$DIR_FORMAT=	BID24	Specifies how Sterling Connect:Enterprise will format the reply to a \$\$DIR command during an SNA session.	TYPE=LU1RJE \$\$DIR_FORMAT=BID24   BID64
FTP_DEFAULT_DIALOG_TRACE_LRECL=	136	Specifies the LRECL of the FTP DIALOG trace files. Each file is allocated using RECFM=VBA (Variable, Blocked, ANSI print control character). Valid value are 136-32756.	n/a

## Run PURGE utility with INIT=BID64 (required)

To convert existing VPF and VCF files for use in a 64-character user BID environment, you must use the PURGE utility with the INIT=BID64 parameter. (See XPURGE64 Example Member for sample code and further instructions.) You must use only the following control records in the SYSIN file to perform this conversion—no other parameters can be specified.

```
PURGE
  VPF=your.VPF
  INIT=BID64
```

The BID64 conversion routine populates each VPF and VCF batch control record with a new 64-byte Batch ID field (blank filled, then the existing 24-byte Batch ID field is copied into the left most portion of the new 64-byte field). In addition, a new flag byte is set to indicate that the

VPF/VCF record contains a 64-byte Batch ID. (The same flag is also set when a batch is created during an offline ADD or online collection.) The conversion program performs the following functions in this sequence:

1. All VPF batch control records are sequentially processed and updated.
2. All VCF batch control records are sequentially processed and updated (that is, 1-MAXBNO)
3. The VCF Master Control record is updated to indicate the data base has been initialized (in sync) and can execute in the BID64 environment.

Copies of the last used batch number and roll number fields are placed into new corresponding counterpart fields. Each time a batch is created, these two fields are copied into their corresponding new counterpart fields. If either field gets out of sync, the Sterling Connect:Enterprise load modules, STMAIN and STOUTL, terminate during startup and you must run the INIT=BID64 conversion again. For STMAIN, the CMB426E and CMB279I messages are displayed. For STOUTL, the CMU262W and CMU263E messages are displayed. (For more information, see the *IBM Sterling Connect:Enterprise for z/OS Messages and Codes Guide*.)

An out of sync condition is caused by one of the following reasons:

- ◆ The INIT=BID64 conversion was never performed as part of the required initial upgrade process.
- ◆ The INIT=BID64 was performed, but subsequently, a batch was created in an earlier version of Sterling Connect:Enterprise in a non 64-Character User Batch ID Environment. You must convert the out-of-sync batch control records using the PURGE utility with the INIT=BID64 parameter.

## Modify VSAM Server PROC

Prior to Sterling Connect:Enterprise for z/OS Version 1.4, BTINIRST executed as a first step to clean up any residual Common Service Area (CSA) storage which may have been left over from a previous VSAM Server execution. Beginning with Sterling Connect:Enterprise for z/OS Version 1.4, the product no longer uses any CSA and BTINIRST is no longer required. You can remove BTINIRST from the VSAM Server PROC.

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**Note:** There is no harm in leaving BTINIRST in your PROC; it acts as a IEFBR14.

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## Select STOUTL and CSCU/ICO Report Formats

With Sterling Connect:Enterprise for z/OS Version 1.4, additional output formats have been designed for the STOUTL REPORTS DD and Cross System Client Utility (CSCU) and InterConnect Option (ICO) REPORTS DD and SYSPRINT DD. Prior to Version 1.4, there was one report format for a 24-character BID; with Version 1.4, two new formats can accommodate the longer 64-character BID. To control the report format, you can use a new SYSIN FORMAT= parameter in STOUTL offline utilities and CSCU/ICO utilities to customize the report format for a particular STOUTL report, or, use new \*OPTIONS ODF parameters to set up global report templates for your STOUTL and CSCU/ICO reports.

The default is set by the DEFAULT\_MODE=BID24|BID64 parameter. If you specify DEFAULT\_MODE=BID24, 1 is the default for the SYSIN FORMAT= parameter; if you specify DEFAULT\_MODE=BID64, 1X is used for the FORMAT= parameter. For more information on this global default, see *Specify Global BID Format (required)* on page 19.

## Customizing the Format for a Single Report

You can select one of the following values for the FORMAT input control record in SYSIN files in STOUTL, CSCU, and ICO reports.

FORMAT=1 | 1X | 2

where:

1 = Uses the legacy REPORTS DD report format, which supports a 24-character BID.

1X = Uses the legacy REPORTS DD report layout, but extends the BID field to 64 bytes and produces a single line per batch. To accommodate the wider detail lines, you must increase the LRECL.

2 = Uses a new report format, which contains two detail lines for each batch, the first being identical to the legacy report line, and the second containing only the 64-byte BID, aligned to start in the same column as the 24-byte BID.

You can specify the FORMAT parameter in the following STOUTL utilities. (CSCU and ICO utilities are noted within parentheses.)

- ◆ ADD (CSCU/ICO)
- ◆ DELETE
- ◆ ERASE
- ◆ EXTRACT (CSCU/ICO)
- ◆ LIST (CSCU/ICO)
- ◆ MOVE
- ◆ REPORT TYPE=ACDETAIL|OFFLOG|RCDETAIL
- ◆ STATFLG (CSCU/ICO)
- ◆ VERIFY

For more information and report output samples, see the *Customizing the Layout of Reports* section in the *IBM Sterling Connect:Enterprise for z/OS User's Guide*.

## Setting up a Global Report Format

By using the global ODF \*OPTIONS parameters described in this section, you do not have to explicitly code FORMAT= in every STOUTL or CSC/ICO SYSIN member. The ODF parameters have no default value themselves. If omitted from the \*OPTIONS record, the default SYSIN value or explicitly coded value of the FORMAT parameter will take effect when reports are generated.

To create a global report template for your STOUTL and CSCU/ICO reports, you can override the default FORMAT=1X SYSIN value by specifying the following parameters in the ODF \*OPTIONS record:



- ◆ STOUTL\_DEFAULT\_REPORTS\_FORMAT=1 | 1X | 2
- ◆ CSC\_DEFAULT\_REPORTS\_FORMAT=1 | 1X | 2
- ◆ ICO\_DEFAULT\_REPORTS\_FORMAT=1 | 1X | 2

where:

1 = Uses the legacy REPORTS DD (and SYSPRINT) report format which supports a 24-character BID. To keep the pre-1.4 version of the STOUTL (or CSC/ICO) reports without having to change all of your STOUTL jobs, use the REPORTS\_FORMAT=1 value for the parameter associated with the type of utility you use.

1X = Uses the legacy REPORTS DD (or SYSPRINT) report layout, but extends the BID field to 64 bytes. If you want the single-line version of the 64-character report for all jobs, you do not need to include this parameter in the ODF since this also represents the default SYSIN FORMAT value.

2 = Uses two lines per detail item. If you want the two-line version of the 64-character report for all jobs, use the REPORTS\_FORMAT=2 for the appropriate parameter.

If you want the 24-character version for some jobs and the 64-character version for other jobs, modify the individual STOUTL job SYSINs with the appropriate FORMAT= value. For more information on ODF parameters, see the *IBM Sterling Connect:Enterprise for z/OS Administration Guide*.

## Check STOUTL ADD AUTOSEND Records

If you use AUTOSEND records to initiate auto connect sessions and specify the BATCHID= parameter, you are still limited to the 80-character record, which might not accommodate the entire 64-character user batch ID. If the longer BID becomes a restriction with any of your AUTOSEND records, change the BATCHID= value to use a symbolic variable, which resolves either to the newly added Batch ID or batch number, as follows:

```
// MODIFY RDXCETL, $$CON, L=LSNA001 ID=STLTST01 BATCHID='&BID64'
```

or

```
// MODIFY RDXCETL, $$CON, L=LSNA001 ID=STLTST01 BATCHID=&BATCH#
```

## Check STOUTL ADD/EXTRACT Log Record Layout

If you use the LOGFILE DD records file for STOUTL post-processing in custom-written programs, modify the programs to reference the long batch ID to accommodate 64-characters. The following example shows the legacy (24-character) and long (64-character) BID fields in the M\$LOGB macro:

<b>Current</b>	LB\$BCHID DS CL24	USER BATCH ID
<b>New</b>	LB\$BCHID24 DS OCL24	USER BATCH ID (SHORT)

## Select SNA Embedded \$\$DIR Format

Prior to Sterling Connect:Enterprise for z/OS Version 1.4, \$\$DIR commands embedded in SNA data produced a directory listing showing a 24-character BID. Starting with Version 1.4, the \$\$DIR directory listing will show a 64-character BID if DEFAULT\_MODE=BID64 and a 24-character BID if DEFAULT\_MODE=BID24.

To keep the legacy 24-character BID format, you can use any of the following methods:

- ◆ Embed \$\$DIR FORMAT=BID24 commands in the SNA data
- ◆ Specify \$\$DIR\_FORMAT=BID24 in the \*REMOTES record of the ODF with TYPE=LU1RJÉ for a particular remote site that uses the SNA protocol
- ◆ Specify SNA\_DEFAULT\_\$\$DIR\_FORMAT=BID24 in the \*OPTIONS record of the ODF to set a global standard for all SNA remote sites

## Select BSC Embedded \$\$DIR Format

Prior to Sterling Connect:Enterprise for z/OS Version 1.4, \$\$DIR commands embedded in BSC data produced a directory listing showing a 24-character BID. Starting with Version 1.4, the \$\$DIR directory listing will show a 64-character BID if DEFAULT\_MODE=BID64 and a 24-character BID if DEFAULT\_MODE=BID24.

To keep the legacy 24-character BID format, you can use any of the following methods:

- ◆ Embed \$\$DIR FORMAT=BID24 commands in the BSC data.
- ◆ Specify BSC\_DEFAULT\_\$\$DIR\_FORMAT=BID24 in the \*OPTIONS record of the ODF to set a global standard for all BSC sites

## Specify LRECL for FTP Client/Server Dialog Traces

Prior to Sterling Connect:Enterprise for z/OS Version 1.4, the logical record length (LRECL) for the DIALOG Trace DD was 133. Starting with Version 1.4, you can specify the LRECL of the FTP DIALOG trace files. Each file is allocated using RECFM=VBA (Variable, Blocked, ANSI print control character). Valid values are 136–32756. The default value is 136.

Trace records that are longer than the specified LRECL automatically wrap to the next line. To reduce or eliminate the number of lines that wrap in your trace file, specify a larger LRECL value using the FTP\_DEFAULT\_DIALOG\_TRACE\_LRECL parameter in the \*OPTIONS record in the ODF.

## Customize Environment When Acting as an FTP Server

To customize your environment to fit the length of BIDs used in your system, you can use the following parameters for FTP clients. These parameters are described below.

- ◆ FTP\_DEFAULT\_SERVER\_REMOTE\_FILENAME\_LENGTH parameter in the \*OPTIONS record in the ODF defines the length of the filename created by the FTP server when sending data to all remote FTP clients.
- ◆ REMOTE\_FILENAME\_LENGTH parameter in the \*REMOTES record for a particular FTP client (TYPE=FTP\_CLIENT) specifies the length of the filename created by the FTP server when sending data to this particular FTP client.
- ◆ FTP\_DEFAULT\_SERVER\_BCHSEP\_NONE\_FILENAME\_FORMAT in the \*OPTIONS record sets the format for all files received from FTP clients when BCHSEP=NONE.
- ◆ FTP\_DEFAULT\_SERVER\_BCHSEP\_OPT3\_FILENAME\_FORMAT parameter in the \*OPTIONS record sets the format for all files received from FTP clients when BCHSEP=OPT3.
- ◆ FTP\_DEFAULT\_CLIENT\_LOCDIRFORM sets the format of a line returned by all Sterling Connect:Enterprise FTP clients in response to an Auto Connect script LOCDIR command.
- ◆ FTP\_DEFAULT\_RECEIVE\_OPTION\_RENAME parameter in the \*OPTIONS record specifies the filename (User Batch ID) used by the Sterling Connect:Enterprise for z/OS FTP Server when creating batches sent from remote FTP client.

The FTP\_DEFAULT\_SERVER\_REMOTE\_FILENAME\_LENGTH parameter in the \*OPTIONS record and the REMOTE\_FILENAME\_LENGTH parameter in the \*REMOTES record (TYPE=FTP\_CLIENT) in the ODF specify the format of the file name created by the Sterling Connect:Enterprise for z/OS FTP Server when receiving data from the remote FTP client using the STOR or PUT command. You can change the parameter value in an AC SCRIPT by using the LOCSITE command. Specifying the FTP\_DEFAULT\_SERVER\_REMOTE\_FILENAME\_LENGTH parameter defines the default value to use when the REMOTE\_FILENAME\_LENGTH parameter in the \*REMOTES record (TYPE=FTP\_CLIENT) is not set. The default is LONG64 if DEFAULT\_MODE=BID64; the default is LONG if DEFAULT\_MODE=BID24. You can choose one of the following values:

- ◆ SHORT = Uses the 7-character batch number as the filename format.
- ◆ LONG = Uses the 24-character BID as the filename format.
- ◆ LONG64 = Uses the 64-character BID as the filename format.

To specify the format of the filename created by the Sterling Connect:Enterprise for z/OS Server when BCHSEP=NONE or BCHSEP=OPT3, you can use the FTP\_DEFAULT\_SERVER\_BCHSEP\_NONE\_FILENAME\_FORMAT or FTP\_DEFAULT\_SERVER\_BCHSEP\_OPT3\_FILENAME\_FORMAT parameter in the \*OPTIONS record. The default is BID64 if DEFAULT\_MODE=BID64; the default is BID24 if DEFAULT\_MODE=BID24. You can choose one of the following values:

- ◆ BID24 = Uses the left most 24 characters of the User Batch ID from the first eligible batch in the transmission as the filename format.
- ◆ BID64 = Uses all 64 characters of the User Batch ID from the first eligible batch in the transmission as the filename format.

To specify the format of a line returned by the Sterling Connect:Enterprise FTP server to the remote FTP client in response to the LIST command, you can use the FTP\_DEFAULT\_SERVER\_DIRFORM parameter in the \*OPTIONS record. This parameter defines the default value for each session. A remote FTP client can override the value using a SITE command. You can choose one of the following values:

- ◆ BROWSER = Specifies a format supported by browsers, displaying the first 24 characters of the Batch ID.
- ◆ BROWSER64 = Specifies a format supported by browsers, displaying the full 64-character Batch ID.
- ◆ MBOX\_CLIENT = Specifies a format supported by IBM® Sterling Connect:Enterprise® Client for Microsoft Windows and the IBM® Sterling Connect:Enterprise® Command Line Client, displaying the first 24 characters of the Batch ID.
- ◆ MBOX\_CLIENT64 = Specifies a format supported by Sterling Connect:Enterprise Client for Microsoft Windows and the Sterling Connect:Enterprise Command Line Client, displaying the full 64-character Batch ID.
- ◆ MBOX\_EXT1\_CLIENT64 = Specifies a format supported by Sterling Connect:Enterprise HTTP (same directory listing format as MBOX\_CLIENT64, but also includes batch record count and VBQID/allocation status).
- ◆ MBOX\_ZOS = Specifies the Sterling Connect:Enterprise \$\$DIR format, displaying the first 24 characters of the Batch ID.
- ◆ MBOX\_ZOS64 = Specifies the Sterling Connect:Enterprise \$\$DIR format, displaying the full 64-character Batch ID.
- ◆ \$MBINSDFXYKORV = Reply format options. You can specify up to 12 options in any order after the initial \$ option.
  - ◆ M = Eight-character character Mailbox ID
  - ◆ B = 24-character Batch ID (BID=xxxx...xxxx)
  - ◆ I = 24-character Batch ID (xxxx...xxxx)
  - ◆ N = Seven-digit batch number (#nnnnnn)
  - ◆ S = Eight-digit file size in number of bytes (CT=nnnnnnnn)
  - ◆ D = Time/date of batch creation (hhmm-yyddd)
  - ◆ F = Batch status flags
  - ◆ X = 64-character Batch ID (BID=xxxx...xxxx)
  - ◆ Y = 64-character Batch ID (xxxx...xxxx)
  - ◆ K = 15-digit file size in number of bytes (CT=nnnnnnnnnnnnnnnn)
  - ◆ O = 8-character batch originator (batch job or remote name)
  - ◆ R = 11-digit record count (REC=nnnnnnnnnnnn)
  - ◆ V = VBQ ID and allocation status (VBQnn [OFFLINE])
  - ◆ UNIX = Specifies the standard UNIX directory display format, displaying the first 24 characters of the Batch ID.
  - ◆ UNIX64 = Specifies the standard UNIX directory display format, displaying the full 64 character Batch ID.

The FTP\_DEFAULT\_RECEIVE\_OPTION\_RENAME parameter in the \*OPTIONS record and the RECEIVE\_OPTIONS\_RENAME parameter in the \*REMOTES record (TYPE=FTP\_CLIENT) specify the filename (User BID) used by the Sterling Connect:Enterprise for z/OS FTP Server when

creating batches sent from the remote FTP client when BCHSEOPT4. If the \*REMOTE TYPE=FTP\_CLIENT RECEIVE\_OPTION RENAME value is not set, the \*OPTIONS parameter, FTP\_DEFAULT\_RECEIVE\_OPTION\_RENAME, is used. The remote FTP client can use a SITE command to override the value of this parameter. The default value is FIRST64 if DEFAULT\_MODE=BID64; the default is FIRST24 if DEFAULT\_MODE=BID24. You can choose one of the following values:

- ◆ FIRST24 = Truncates a long file name by using the first 24 characters of the inbound file name as the User Batch ID.
- ◆ LAST24 = Truncates a long file name by using the last 24 characters of the inbound file name as the User Batch ID.
- ◆ FIRST64 = Truncates a long file name by using the first 64 characters of the inbound file name as the User Batch ID.
- ◆ LAST64 = Truncates a long file name by using the last 64 characters of the inbound file name, as the User Batch ID.

---

**Note:** The \*REMOTE TYPE=FTP\_CLIENT RECEIVE\_OPTION RENAME parameter sets many other values besides the RENAME value including BID, EO, MULTXMIT, TO, and XMIT.

---

## Customize Environment When Acting as an FTP Client

To customize your environment to fit the length of BIDs used in your system, you can use the following parameters. These parameters are almost identical to those for the FTP server. For more information, see the *Configuring ODF Records for FTP Connections* chapter in the *IBM Sterling Connect:Enterprise for z/OS Administration Guide*.

- ◆ FTP\_DEFAULT\_CLIENT\_REMOTE\_FILENAME\_LENGTH parameter in the \*OPTIONS record in the ODF defines the length of the filename created by FTP clients when sending data to all remote FTP servers.
- ◆ REMOTE\_FILENAME\_LENGTH parameter in the \*REMOTES record for a particular FTP server (TYPE=FTP\_SERVER) specifies the length of the filename created by the FTP client when sending files to this particular FTP server.
- ◆ FTP\_DEFAULT\_CLIENT\_BCHSEP\_NONE\_FILENAME\_FORMAT in the \*OPTIONS record
- ◆ FTP\_DEFAULT\_CLIENT\_BCHSEP\_OPT3\_FILENAME\_FORMAT parameter in the \*OPTIONS record
- ◆ FTP\_DEFAULT\_CLIENT\_LOCDIRFORM in the \*OPTIONS record in the ODF

## Select Display Format for Directory Console Command

Prior to Sterling Connect:Enterprise for z/OS Version 1.4, the \$\$DIR | \$\$DIRECTORY console command listed a CMB017I message with a 24-character BID for each batch selected. Starting with Sterling Connect:Enterprise for z/OS Version 1.4, the \$\$DIR console command includes a second detail message (CMB427I) for each batch, immediately following the original CMB017I message. The CMB427I includes: message id, batch number, and the 64-character Batch ID,

aligned immediately under the 24-character Batch ID in the CMB017 message as shown in the following example.

```
CMB017I - F38027 #0000057 CT=000000005 BID=|---+---1---+---2--- 2018-08044 A R VBQ01
CMB427I - #0000057 BID=|---+---1---+---2---+---3---+---4---+---5---+---6---|
```

You can use a new command (\$\$DIR24 | \$\$DIRECTORY24) to produce the same display as prior to version 1.4 (that is, CMB017I), where only the first 24 characters of the Batch ID are provided.

```
CMB017I xxxxxxxx #nnnnnnn CT=nnnnnnnnn BID=x...x HHMMYYDDD ICADNURTEMXBFSZ4012389e
VBQ=xx| [OFFLINE]
```

For more information, see the *Console Commands* chapter in the *IBM Sterling Connect:Enterprise for z/OS User's Guide*.

## Review and Modify User Exit Programs

If you use user exits to customize the execution and automation of your Sterling Connect:Enterprise environment, review the following considerations carefully. For additional information, see the *IBM Sterling Connect:Enterprise for z/OS Application Agents and User Exits Guide*.

- ◆ If you use one of the following security exits, you must modify your user exit programs to accommodate the longer batch ID by changing CL24 to CL64 for all BID-related fields in the M\$SECDAT and M\$XCB macros:
  - ◆ STSECFTP (Session security exit for FTP)
  - ◆ STSEC1 (Security exit one for BSC or SNA)
  - ◆ STSEC2 (Security exit two for BSC or SNA)
- ◆ If you are using the STEOBX2 End of Batch user exit in a release before Sterling Connect:Enterprise for z/OS Version 1.4, you must manually convert the STPDS data set member SUBTABLE before using the 1.4 version of the exit. See the Sterling Connect:Enterprise for z/OS Version 1.4 (or later) STEOBX2 sample exit source for conversion details.
- ◆ If you are using exit STEOBX2V End of Batch user exit in a release before Sterling Connect:Enterprise for z/OS Version 1.4, you must manually convert the VSAM KSDS before using the 1.4 version of the exit. See the Sterling Connect:Enterprise for z/OS Version 1.4 (or later) STEOBX2V sample exit source for conversion details.

## Modify IPS Macros within the CICS User API

If your Sterling Connect:Enterprise system runs on user-written APIs through the CICS LU62 interface, your user-written programs are probably referencing IPS macros in the sample programs provided by Sterling Connect:Enterprise.

---

**Note:** An Interface Parameter Structure (IPS) is a macro request/response format which defines the fields in a particular request or response message. Chapter 10, *CICS User API*, in the *IBM Sterling Connect:Enterprise for z/OS Application Agents and User Exits Guide*, contains information on the data contained in the IPS (C\$xxx definition) used by various transactions, such as the Wake Up Transaction or Online Batch Request.

---

Until Version 1.4, new fields could be inserted into the IPS because there was adequate reserved space in the fixed format record layout definitions to implement new features. However, because some IPS (C\$xxx) macros do not have enough physical room to accommodate the longer batch ID available for use in Version 1.4, a new IPS format is being introduced resulting in the following two formats:

- ◆ C\$xxx FORMAT=1 generates the legacy (24 character) record layout
- ◆ C\$xxx FORMAT=2 generates the expanded (64 character) record layout

If a user-exit program references one of the following IPSs, you must specify FORMAT=1 when you communicate with a version of Sterling Connect:Enterprise for z/OS prior to Version 1.4:

- ◆ C\$O29 - ACTIVE SESSION DETAIL DISPLAY OF REMOTE AC/RC
- ◆ C\$O34 - ACTIVE A/C REMOTE SUMMARY DISPLAY
- ◆ CO43 - REMOTES LIST DISPLAY
- ◆ C\$O44 - REMOTES UPDATE
- ◆ C\$U06 - AUTO CONNECT DETAIL REQUEST
- ◆ C\$U07 - AUTO CONNECT DETAIL SELECTION LIST DATA
- ◆ C\$U071 - QUEUED AUTO CONNECT DISPLAY
- ◆ C\$U12 - REMOTE CONNECT DETAIL REQUEST
- ◆ C\$U13 - REMOTE CONNECT DETAIL DISPLAY
- ◆ C\$U15 - BATCH QUEUE DIRECTORY REQUEST
- ◆ C\$U16 - BATCH QUEUE DIRECTORY LIST
- ◆ C\$U28 - BATCH STATUS FLAGS REQUEST
- ◆ C\$W00 - CICS WAKE-UP REQUEST/RESPONSE

## Client Interoperability of other Sterling Products with Version 1.4

Refer to the table below if you are using other Sterling products with Sterling Connect:Enterprise for z/OS to ensure client interoperability. This table shows the specific release level of the other Sterling products required to ensure that displays and reports work properly.

Sterling Product	BID 64 Maintenance Release
Sterling Connect:Enterprise HTTP	1.3.02 or later
Sterling Connect:Enterprise Secure Client	1.3.03 or later
Sterling Connect:Enterprise Gateway	2.0.04 CUM 21 or later
Sterling Connect:Enterprise Gateway	2.1.00 CUM 04 or later

## Upgrading to Sterling Connect:Enterprise for z/OS Version 1.3

Starting with the Sterling Connect:Enterprise for z/OS version 1.3.00 release, you can reduce the record size of your VCF from 2048 to 768 to save DASD space. This release can run with a VCF record size of 2048 or 768, but earlier versions of Sterling Connect:Enterprise (versions 1.0 through 1.2) must be run with a VCF record size of 2048. You can use example job VCFRESIZ to convert the VCF from 2048 to 768, or example job VCF2048 to convert from 768 to 2048. See the *IBM Sterling Connect:Enterprise for z/OS Installation Guide* for more information on example members.

If you use the alternate index facility, you must run example job VSAMAIX1 to rebuild the alternate index after you run either VCFRESIZ or VCF2048. If you do not rebuild your alternate index after running VCFRESIZ or VCF2048, the following message is displayed when you start Sterling Connect:Enterprise:

```
DNB236E - xxxxxx BTVSMOPN FAILED RC=0252 REASON 00000004 ERROR 17080002
```

If during testing you plan to switch between Sterling Connect:Enterprise for z/OS version 1.3 and an earlier version of Sterling Connect:Enterprise that uses the same VCF, keep the 2048 record size until you plan to stay on version 1.3 of Sterling Connect:Enterprise for z/OS. If you run VCFRESIZ and later need to return to an earlier version of Sterling Connect:Enterprise, you can run example job VCF2048 to convert the VCF record size back to 2048.

If you attempt to run a version of Sterling Connect:Enterprise earlier than version 1.3 with a record size of 768, the following messages are displayed when you start Sterling Connect:Enterprise:

```
CMB701E - INVALID LOGICAL RECORD LENGTH FOR FILE:
CMB702E - ENTPRS.CE.VCF LRECL 000768 / 002048
CMB701E - INVALID LOGICAL RECORD LENGTH FOR FILE:
CMB702E - ENTPRS.CE.VCF1P LRECL 000768 / 002048
```



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## Documentation Updates

Sterling Connect:Enterprise for z/OS version 1.5 documentation requires no last-minute updates.

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## Sterling Connect:Enterprise for z/OS Documentation

The Sterling Connect:Enterprise for z/OS documentation is available on the distribution media and the IBM Sterling Documentation Library.

The Sterling Connect:Enterprise for z/OS documentation consists of:

- ◆ *IBM Sterling Connect:Enterprise for z/OS Installation Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS Administration Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS User's Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS Remote User's Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS ISPF User's Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS CICS User's Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS Application Agents and User Exits Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS Messages and Codes Guide*
- ◆ *IBM Sterling Connect:Enterprise InterConnect Option for z/OS User's Guide*
- ◆ *IBM Sterling Connect:Enterprise for z/OS Version 1.5.00 Release Notes*

In addition to the documentation listed above, an Excel spreadsheet file for calculating the VSAM server EPVT area is included in the documentation set.



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