

# **Connect:Enterprise® for z/OS**

## **Installation Guide**

**Version 1.4**

## ***Connect:Enterprise for z/OS Installation Guide***

### **Version 1.4**

#### **First Edition**

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# About Connect:Enterprise

Connect:Enterprise is an online communications and data repository system that enables data transmission between a host computer and remote terminals or computers. Connect:Enterprise provides a way to collect, distribute, and track data, while protecting the host from unauthorized access.

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## Transmitting and Collecting Data

Connect:Enterprise collects and transmits data between the host computer and remote terminals, applications, or computers through the *data repository*, which is designed on the store and forward model. Like a voice mail system, the data repository consists of individual *mailboxes*, or directories, where data files are stored for future processing by the host or remote site. The Connect:Enterprise administrator assigns mailboxes and controls access to the mailboxes through Connect:Enterprise user IDs and passwords. After a communications session is established between Connect:Enterprise and a remote site, either the host or the remote users can store, retrieve, or monitor data files in the mailboxes to which they have access. Both the host computer and the remote sites can initiate data collection and distribution. A communications session with the Connect:Enterprise repository can be initiated using the FTP, SNA, or BSC protocol.

Connect:Enterprise collects data files from remote sites for a central host site. For example, Connect:Enterprise can gather data generated by a database application for one remote site, then extract the data at the host site for use by a local application.

Connect:Enterprise distributes data files from the host to one or more remote sites. The host site can automatically transmit output reports or data to remote sites. For example, if a company needs to send the latest sales report to its 25 regional sales offices, it can either send the report at a predetermined time to its sales offices or deposit the report in the repository and flag the report for transmission to the offices. The remote offices connect to the repository, obtain a listing of the repository contents, and request transmission of reports to their sites.

Connect:Enterprise also enables you to schedule automated data collection and transmission between the host and an unattended remote site using the Auto Connect feature. You can schedule automated sessions by time of day, day of the week, day of the year, or you can initiate an Auto Connect session by issuing a host site operator command when data is ready for transmission. An Auto Connect activity report is available after the Auto Connect session finishes.

## Connect:Enterprise Terminology

The following table defines the concepts and terminology used with this product. The common synonym for a Connect:Enterprise term is also specified.

<b>Term</b>	<b>Connect:Enterprise Definition</b>
Remote site	Remote terminal, application, or computer which is configured to initiate a communications session with the data repository.
Host site	Connect:Enterprise server on which the data repository resides.
Data repository	Collection of individual mailboxes, or directories, where data files are stored for future processing by the host or remote site.
Batch	Data file residing in a mailbox of the repository on the Connect:Enterprise host computer. When a batch is added to the repository, it is assigned a unique number (from 1 to 9,999,999).
Mailbox ID	An identifier that defines the repository associated with a batch. Remote users access the contents of the VSAM batch files, where the batches are stored, using the Mailbox ID.  A user can have access to a single mailbox (individual mailbox), a group mailbox (accessible by multiple users), and multiple mailboxes (accessible by a single user or trading partner).
Batch ID (BID) or user batch ID	A description of the batch. It is also referred to as the user batch ID because it is assigned by the user.
Auto Connect	Unattended, scheduled communications session initiated by the Connect:Enterprise repository to distribute or collect data.
Remote-initiated session (Remote connect)	Unsolicited communications session with the Connect:Enterprise repository initiated by a remote site.

## Remote Site Capabilities

When you initiate a communications session with the Connect:Enterprise data repository from a remote site, you can perform the following functions:



Function	Description
Add batches	Add batches to the data repository by establishing a session with Connect:Enterprise. Each transmission generates one or more batches. All batches transmitted from a remote site are marked with the mailbox ID supplied or with the remote name of that site. The originating site can also flag batches as transmittable, making them available for transmission requests by other remote sites.
Request batches	Request batches from the data repository by establishing a session with Connect:Enterprise and requesting a batch by the appropriate batch identifier. Batches requested this way are not deleted. They remain in the data repository and are still available for transmission to other remote sites.
Delete batches	Instructs the Connect:Enterprise repository to flag a batch as deleted. The batch is logically deleted and not transmitted to remote sites. The batch is displayed in directory listings but is flagged as deleted.  Batches are physically removed only by using the ERASE utility, which is not available to remote sites.
List directory of batches	Request a list of all batches in the data repository marked with either their mailbox ID or a given batch ID.

---

## Connect:Enterprise Communications

Connect:Enterprise runs on a host mainframe using the Virtual Telecommunications Access Method (VTAM), Basic Telecommunications Access Method (BTAM), or Transmission Control Protocol/Internet Protocol (TCP/IP), and enables data transmission between the host and remote terminals or computers. Connect:Enterprise supports data transmissions between the host and remote sites using the following types of protocols:

- ◆ SNA data transmissions between mainframes using VTAM and various remote devices
- ◆ BSC data transmissions between mainframes using BTAM and various other computers
- ◆ FTP data transmissions between remote FTP clients and the Connect:Enterprise FTP server
- ◆ FTP data transmissions between remote FTP servers and the Connect:Enterprise FTP client
- ◆ FTP SSL data transmissions between remote FTP clients and the Connect:Enterprise FTP server
- ◆ FTP SSL data transmissions between remote FTP servers and the Connect:Enterprise FTP client

Also, Connect:Enterprise Gateway provides data transmission between the Connect:Enterprise host computer and ASYNC, BSC, and FTP remote sites.

## Types of Bisynchronous Communications Lines

The types of communication lines that you use determine how you connect to the data repository. Bisynchronous lines are typically either switched (dialup) or nonswitched (dedicated or leased) lines. A switched line is a temporary connection between two sites for the duration of the session only. A nonswitched line is a permanent connection between sites that does not require dialup to start the communications.

## Security

You can implement security in the Connect:Enterprise system at various points in the processing. The security implementation at the Connect:Enterprise host affects the requirements at the remote sites.

Ensure you have complete instructions from your host site administrator regarding the security measures that are implemented on your system, the functions that are available to you, and the information you need to access the data repository. Refer to the glossary for security terms and definitions. The following table lists components and topics affecting security and where you can find additional information.

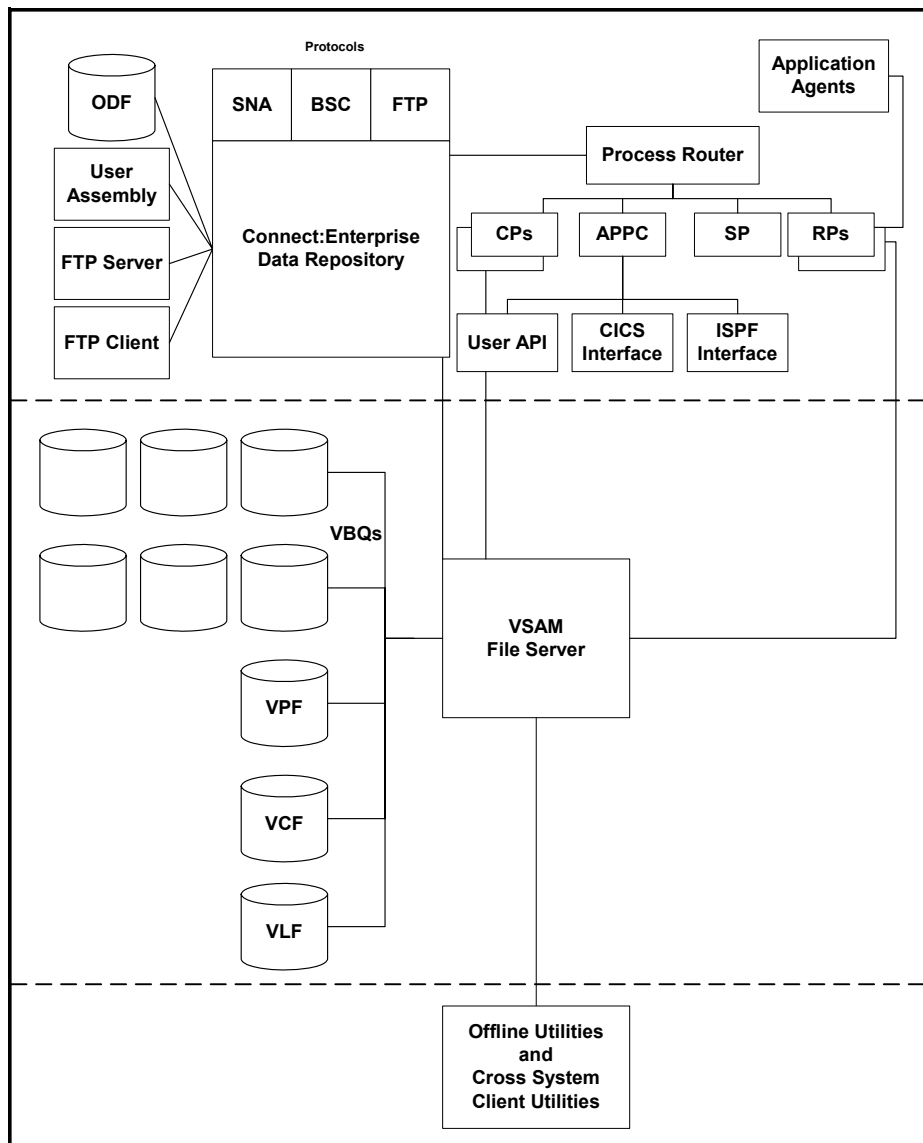
<b>Component or Topic Related to Security</b>	<b>Connect:Enterprise for z/OS Documentation</b>
Security exits	<i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> <i>Connect:Enterprise for z/OS Remote User's Guide</i>
ODF parameters and configuring for security	<i>Connect:Enterprise for z/OS Administration Guide</i> <i>Connect:Enterprise InterConnect Option for z/OS User's Guide</i>
Logon and batch functionsecurity	<i>Connect:Enterprise for z/OS Administration Guide</i>
Authenticating user IDs and passwords	<i>Connect:Enterprise for z/OS Administration Guide</i> <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> <i>Connect:Enterprise InterConnect Option for z/OS User's Guide</i> <i>Connect:Enterprise for z/OS Remote User's Guide</i>
Encryption	<i>Connect:Enterprise for z/OS Administration Guide</i> <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> <i>Connect:Enterprise for z/OS Remote User's Guide</i>
Security for FTP connections (and SNA and BSC connections)	<i>Connect:Enterprise for z/OS Administration Guide</i> <i>Connect:Enterprise for z/OS Remote User's Guide</i>
Connect:Enterprise Security Interface	<i>Connect:Enterprise for z/OS Administration Guide</i> <i>Connect:Enterprise for z/OS Remote User's Guide</i>
Connect:Direct security	<i>Connect:Enterprise InterConnect Option for z/OS User's Guide</i>

## Connect:Enterprise Components

Connect:Enterprise has three major components:

- ◆ Data repository or Connect:Enterprise online system
- ◆ Virtual Storage Access Method (VSAM) file server
- ◆ Offline utilities

The following diagram illustrates these components.



## Data Repository

The data repository transmits and collects data from BSC, FTP, and SNA sites. The repository handles all session activity and accepts service requests from the console, the user API, the ISPF interface, the CICS interface, and the Connect:Enterprise FTP server.

The Connect:Enterprise data repository consists of the following components:

Component	Description
Options Definition File (ODF)	The ODF contains control information such as passwords, security information, connection definitions, logical unit pooling, remote site definitions for SNA sites, and signon records and BTAM ID verification for BSC sites.
User Assembly	The User Assembly contains macros that define BSC lines to Connect:Enterprise. This component is used only by BSC connections.
FTP Server	The FTP Server enables remote FTP client sites to access, retrieve, and send data to Connect:Enterprise through a subset of the standard FTP commands.
FTP Client	The FTP Client enables FTP communication between FTP servers implemented on any platform.
Command Processors (CPs)	The CPs process command requests from the ISPF interface, the CICS interface, and the user API.
Advanced Peer-to-Peer Communications (APPC)	The APPC server provides LU6.2 communications with the ISPF interface, the CICS interface, Cross System Client, and the user API.
Process Router (PR)	The PR routes transactions among the repository, the CPs, the APPC server, and RPs.
Application agents	Application agents are commands that you can use to customize and automate Connect:Enterprise processing.
Rules Processors (RPs)	The RPs process requests from the application agent interfaces.
Scheduler Processor (SP)	The SP manages timer intervals, which schedule when events are triggered.

## The VSAM File Server and VSAM Batch Files

The VSAM file server processes requests from the Connect:Enterprise data repository to read and write data to the VSAM batch files. The VSAM batch files consist of the VSAM Pointer File (VPF), VSAM Control File (VCF), VSAM batch queues (VBQ), and VSAM log files (VLF). The following table describes the functions of these files.

VSAM Batch File	Function
VSAM Pointer file (VPF) VSAM Control file (VCF)	Index and control the information regarding the batches, such as mailbox ID, status, and location of the batch data within the VSAM batch queues.

VSAM Batch File	Function
VSAM Batch Queue (VBQ)	Multiple files that contain the actual batch data.
VSAM Log files (VLF)	Contain the record of communications sessions and offline utility activity.

The VSAM file server resident task must be active for the repository and offline utilities to run.

## Offline Utilities

Offline utilities enable you to maintain VSAM batch files by performing such tasks as adding and extracting batches from the VBQs and reporting. Offline utilities access the VSAM file server to perform these tasks.

Offline utilities must reside in the same logical partitioning (LPAR) as the VSAM file server. However, you can run a subset of the offline utilities, called the Cross System Client Utilities, from a separate LPAR.

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## Connect:Enterprise Documentation

See *Connect:Enterprise for z/OS Release Notes* for a complete list of the product documentation.

## About This Guide

*Connect:Enterprise for z/OS Installation Guide* is for operations staff who install the product.

This guide assumes knowledge of the z/OS operating system, including its applications, network, and environment. If you are not familiar with the z/OS operating system, refer to the z/OS library of manuals.

## Notational Conventions

The Connect:Enterprise documentation uses certain notational conventions. This section describes the conventions used in this guide.

Convention	Description
UPPERCASE LETTERS	Uppercase letters in the command format indicate that you type in information as shown.
UPPERCASE and lowercase Letters	A statement, command, or parameter in uppercase letters followed by lowercase letters indicates an alternative to typing the entire command. For example, <code>SElect PROCess</code> means that you need only type <code>SEL PROC</code> for the command to be valid.

Convention	Description
lowercase letters	Lowercase letters or words in commands or syntax boxes require substitution by the user. For example, <code>PNODE=primary-node-name</code> indicates that you must provide the name of the primary node.
Bold Letters	Bold print in syntax boxes indicates commands and required parameters. For example, <b>NAME=filename</b> indicates that the parameter <i>NAME</i> is required.
Underlined Letters	Underlining indicates default values for parameters and subparameters. For example, <code>FTP=Yes <u>No</u></code> specifies that the default for <i>FTP</i> is <i>NO</i> .
Vertical Bars ( )	Vertical bars indicate that you can supply one of a series of values separated by the vertical bars. For example <code>HOLD=Yes No Call</code> specifies that <i>Yes</i> or <i>No</i> or <i>Call</i> is valid.
Brackets [ ]	Brackets indicate that information is optional. For example, <code>STARTT= ([date day] [,hh:mm:ssXM])</code> indicates that you can specify either a date or a day, a date or a day plus a time, or just a time.
Italics	Italic letters are placeholders for information you must provide. Italic font also indicates book, chapter, and section titles and is used for emphasis in the text.
Monospaced characters (characters of equal width)	Monospaced characters represent information for screens, commands, Processes, and reports.
Punctuation	Code all commas and parentheses as they appear.

---

# Before You Begin

This chapter describes defining an APF-authorized load library and modifying VTAM for SNA transmissions.

---

## Defining an APF-Authorized Load Library

Before installing Connect:Enterprise, you must define the Connect:Enterprise load library (ENTPRS.LOAD or any library file name you choose) and the VOLSER in the IEAAPFxx or PROGxx member of SYS1.PARMLIB as an APF-authorized library.

---

## Modifying VTAM for SNA Data Transmissions

If you want to use Connect:Enterprise to send SNA data transmissions, you must modify VTAM. The following procedures describe the modifications required to use Connect:Enterprise with SNA:

- ◆ *Defining Connect:Enterprise as a VTAM Application Program* on page 16
- ◆ *Defining Switched Nodes to Access Connect:Enterprise* on page 16
- ◆ *Defining a USS Table to Convert Unformatted Logons* on page 18
- ◆ *Defining Session Parameters in a Logon Mode Table* on page 19
- ◆ *Defining the Connect:Enterprise APPC VTAM Application* on page 21
- ◆ *Defining a Log Mode Entry for the APPC Interface* on page 22
- ◆ *Generating Network Control Program (NCP) Information* on page 23

Some of these modifications may not be required for your system, or may have already been done to support other VTAM applications.

Each VTAM modification is described in the following sections.

## Defining Connect:Enterprise as a VTAM Application Program

Create the following statement in your VTAM list library to define Connect:Enterprise as an application program:

APPLNOD1	VBUILD	TYPE=APPL	72
ENTPRS APPL	ACBNAME=ENTPRS,		X
	AUTH=(ACQ),		X
	EAS=20,		X
	VPACING=7,		X
	PARSESS=YES		

The following table describes the previously listed required parameters:

Parameter	Description
ACBNAME=ENTPRS	Specifies the application program name, which can be any name, up to eight characters long. Make a note of this name, because it is used later during installation. The ACBNAME is also specified by remote sites when they log on to Connect:Enterprise.
AUTH=(ACQ)	Permits remote applications to issue the VTAM macros that establish a session with Connect:Enterprise. The required parameter value is ACQ.
EAS=20	Specifies the approximate number of concurrent sessions Connect:Enterprise can have with its logical units. Specify an EAS value that is 10% or 20% greater than your estimated number of sessions.
VPACING=7	Limits the number of buffers queued at any time on a session. Set the VPACING value to 7 to avoid degrading network performance.
PARSESS=YES	Allows parallel session support between two or more Connect:Enterprise systems. The required parameter value is YES.

## Defining Switched Nodes to Access Connect:Enterprise

If any of your remote sites access Connect:Enterprise over a switched network, you must define the switched nodes in the VTAM definition library to access Connect:Enterprise. You may not have to do this if the remote sites are already defined for another VTAM application program, such as JES2. If they are already defined, verify that the parameters used are compatible with the Connect:Enterprise requirements.

Connect:Enterprise supports LU Type 1 devices typically used for RJE-type applications. This includes IBM 3770s and IBM compatible PCs running the IBM SNA RJE support. The installation instructions with these products explain how to define them as VTAM switched nodes.

To define a switched major node and separate PU, PATH, and LU statements for each minor node, create a VBUILD statement in your VTAM list library based on the following example:



```

***** 72
*      SYS1.VTAMLST (SWITCH1)      *
*****
*
SWITCH1  VBUILD  TYPE=SWNET,          X
                MAXNO=2,             X
                MAXGRP=2
*
PUDALLAS  PU ADDR=C1,                X
                IDNUM=00000,          X
                IDBLK=03D,            X
                PUTYPE=2,              X
                MAXPATH=3,            X
                DISCNT=YES,           X
                MODETAB=MODETAB1,     X
                DLOGMOD=RJE3770,      X
                ISTATUS=ACTIVE,       X
                MAXDATA=265,          X
                MAXOUT=7,              X
                PACING=7,              X
                PASSLIM=7,             X
                SSCPFM=USSSCS,         X
                VPACING=2,             X
                USSTAB=USSTAB1
*
PATH01    PATH  DIALNO=(12145551212*), X
                PID=1,                 X
                GID=1,                 X
                GRPNM=SDLCSW01
*
LUDAL001  LU      LOCADDR=1
LUDAL002  LU      LOCADDR=2
LUDAL003  LU      LOCADDR=3
LUDAL004  LU      LOCADDR=4
LUDAL005  LU      LOCADDR=5
*
*****
*      END OF SWITCH1 DEFINITION      *

```

The following table describes some of the key parameters in the definition. For a list of all parameters, see the IBM VTAM documentation.

Parameter	Definition
MODETAB, DLOGMODE, and USSTAB	These are optional parameters. They offer a convenient way to identify the correct session parameters and USS LOGON format. These parameters are used later in the USS Table Definition and Logon Mode Table Entry tasks.
PATH statement	Defines a dial-out path to the Physical Unit (PU), specifying the remote site telephone number and the NCP line group name used in dialing the site. A PATH statement is required if the Connect:Enterprise Auto Connect function is used for host-initiated connection to the remote site.
LUDAL001...LUDAL005	Logical Unit (LU) definitions. In this example, five LUs are defined for the single PU. Connect:Enterprise supports Multiple Logical Unit (MLU) and provides for up to six concurrent sessions per PU.

## Defining a USS Table to Convert Unformatted Logons

A remote site or LU in an SNA network must log on to Connect:Enterprise through VTAM. Connect:Enterprise requires the following information in the logon:

Parameter	Description
LOGMODE	Name of the logon mode table entry where the session parameters are obtained.
APPLID	Name of the Connect:Enterprise application program in your APPL definition statement.
DATA	User-supplied data that is used as a remote name for batch identifiers and for Auto Connect session activation.

Logons can be unformatted or formatted. Unformatted logons are a string of characters sent to the host site and then converted using a table during the logon Process. Unformatted logons are typically typed by a user on the keyboard at the remote site, or generated by a configuration Process at the remote site.

The characters in an unformatted logon are formatted or converted by the USS table. To use unformatted logons, you must define the USS table in the VTAM definition library before you install Connect:Enterprise.

If your remote site can supply the information listed to Connect:Enterprise as part of a formatted logon, you do not need to define a USS table.

In the following example, a USS table named USSTAB1 enables you to convert unformatted logons. This example shows two methods for the remote site to log on to Connect:Enterprise. Define USSTAB1 in the VTAM list library.

```

*****
*                USS TABLE FOR Connect:Enterprise LOGON                *
*****
*
USSTAB1 USSTAB
*
*****
*      LOGON ENTERED BY OPERATOR                                        *
*      L RMTnnn                                                         *
*
*      USS CONVERTS LOGON TO:                                          *
*      LOGON APPLID(ENTPRS) LOGMODE(RJE3770) DATA(RMTnnn)           *
*****
*
LOGON  USSCMD      CMD=L, REP=LOGON, FORMAT=BAL
      USSPARM      PARM=P1, REP=DATA
      USSPARM      PARM=APPLID, DEFAULT=ENTPRS
      USSPARM      PARM=LOGMODE, DEFAULT=RJE3770
*
*****
*      LOGON ENTERED BY OPERATOR                                        *
*      ENTPRS DATA=RMTnnn                                             *
*
*      USS CONVERTS LOGON TO:                                          *
*      LOGON APPLID(ENTPRS) LOGMODE(RJE3770) DATA(RMTnnn)           *
*****
*
ENTPRS USSCMD      CMD=ENTPRS, REP=LOGON, FORMAT=BAL
      USSPARM      PARM=APPLID, DEFAULT=ENTPRS
      USSPARM      PARM=LOGMODE, DEFAULT=RJE3770
      USSPARM      PARM=DATA
*
      USSEND
*
*****

```

Regardless of the logon method used, the host site must inform the remote site users of the proper procedures to log on and communicate with Connect:Enterprise.

### Defining Session Parameters in a Logon Mode Table

You must define the parameters that control a session between Connect:Enterprise and remote sites in a logon mode table entry accessible to Connect:Enterprise.

When a remote site logs on to Connect:Enterprise, the logon includes a LOGMODE parameter that identifies the Logon Mode Table entry storing the session parameters. Connect:Enterprise validates these parameters. If the parameters are not correct, Connect:Enterprise rejects the logon.

In the example on page 17, the PU specifies the logon mode table MODETAB1 and the logon mode table entry RJE3770. In the example, the USS table uses a LOGMODE default of RJE3770.

SYS1.VTAMLIB must contain the Logon Mode Tables. The following example shows two LOGMODE entries (highlighted in bold):

```

* *          LOGON MODE TABLE "MODETAB1"          *          72
.
.
.
*****
RJE3770      MODEENT      LOGMODE=RJE3770,          X
                  FMPROF=X'03',          X
                  TSPROF=X'03',          X
                  PRIPROT=X'B3',          X
                  SECPROT=X'A3',          X
                  COMPROT=X'7080',        X
                  RUSIZES=X'8585',        X
                  PSERVIC=X'01102000F100E00000010040'
*
*
RJE3770X     MODEENT      LOGMODE=RJE3770X,          X
                  FMPROF=X'03',          X
                  TSPROF=X'03',          X
                  PRIPROT=X'B3',          X
                  SECPROT=X'A3',          X
                  COMPROT=X'7080',        X
                  RUSIZES=X'8585',        X
                  PSERVIC=X'01100000F100E00000010040'
.
.
.

```

The LOGMODE entry RJE3770 is the default value for the session parameters. Because this entry includes the ability to handle transmission of FMH2 for Peripheral Data Information Record (PDIR), it can be used as a default LOGMODE for both Connect:Enterprise and JES2.

However, some remote sites cannot process PDIR and reject the RJE3770 session parameters. In the example, the LOGMODE entry RJE3770X is provided for remote sites that cannot process PDIR transmission, such as sites using the IBM SNA RJE support package for the IBM PC. If you use the IBM SNA RJE support package with Connect:Enterprise, your logon must override the default LOGMODE and specify LOGMODE=RJE3770X.

The example also demonstrates the valid session parameters for remote sites that can communicate with Connect:Enterprise as LU Type 1 RJE devices. The following table lists the acceptable values for those parameters:

Parameter	Acceptable Values
PRIPROT	X'A1' X'A3' X'B1' X'B3'
SECPROT	X'A0' X'A1' X'A3' X'B0' X'B1' X'B3'

## Defining the Connect:Enterprise APPC VTAM Application

If you use the Connect:Enterprise CICS interface or the ISPF interface, you must create a separate VTAM APPL for the APPC interface. The APPC interface is the Connect:Enterprise VTAM LU6.2 connection to CICS and ISPF. CICS and ISPF have corresponding APPL statements in the VTAM definition data set. Consult the *Connect:Enterprise for z/OS CICS User's Guide* and the *Connect:Enterprise for z/OS ISPF User's Guide* for more information about this corresponding APPL statement.

This APPL is used by Connect:Enterprise to initiate sessions with either the CICS or ISPF interface. These sessions are occasionally initiated, even on a busy system, so the values listed in the preceding table are large enough in most cases to handle multiple concurrent users on the interface. The following is an example of a VTAM APPC APPL:

* * LU 6.2 APPLS FOR ENTPRS CICS and/or ISPF interface...*	72
MAILAPPL APPL ACBNAME=MAILAPPL, APPLID FOR ACB	X
AUTH=(ACQ),	X
APPC=YES,	X
PARSESS=YES,	X
VPACING=7,	x
AUTOSES=6,	X
DLOGMODE=LU62,	X
DMINWNL=3,	X
DMINWNR=3,	X
DRESPL=ALLOW,	X
DDRAINL=ALLOW,	X
DSESLIM=12,	X
EAS=12,	X
MODETAB=MODEAPPC	

---

**Note:** This statement must follow the VBUILD statement for the major node in the VTAM definition library.

---

The following table describes the parameters in the VTAM APPL. Do not change the values unless you thoroughly understand LU6.2 session parameters. For more information, consult your VTAM installation manual.

Parameter	Description
ACBNAME=xxxxxxx	Specifies the 1–8 character VTAM application program name. Make note of the ACBNAME. This name must be supplied later in the *OPTIONS APPCAPPL=statement during ODF setup. It must also be supplied by CICS and ISPF interface users creating connection definitions.
AUTH=(ACQ)	Permits the CICS or ISPF interface to issue the VTAM macros that establish a session with the Connect:Enterprise.
APPC=YES	Enables Connect:Enterprise to use APPCCMD macro instructions. The required value is YES.

Parameter	Description
PARSESS=YES	Enables parallel session support between Connect:Enterprise and the CICS interface, the ISPF interface, or both. The required value is YES.
VPACING=7	Limits the number of buffers queued at any time on a session. Set this parameter to avoid degrading network performance.
AUTOSES=6	Specifies the maximum number of contention winner sessions. The number of contention winners and losers is determined by a complex set of rules, which is different for both CICS and ISPF.
DLOGMODE=xxxxx	Specifies the name of the logon mode table entry to use as a default. The logon mode table is defined by the VTAM system programmer using the MODEENT macro instruction. You must supply the name of your logon mode table.
DMINWNL=3	Specifies the minimum number of parallel sessions that Connect:Enterprise is guaranteed to take precedence over CICS or ISPF.
DMINWNR=3	Specifies the minimum number of parallel sessions that CICS or ISPF is guaranteed to take precedence over Connect:Enterprise.
DRESPL=ALLOW	Tells VTAM that Connect:Enterprise accepts responsibility for deactivating sessions upon the receipt of a CNOS.
DSESLIM=12 nn	Defines the maximum number of LU6.2 sessions between Connect:Enterprise and CICS or VTAM or both. Set the DSESLIM value to 12 or higher.
EAS=12 nn	Specifies the approximate number of concurrent sessions Connect:Enterprise can have with CICS, ISPF, or both. Set the EAS value to 12, or one that is 10% or 20% greater than your estimated number of sessions.
MODETAB=xxxxxxx	Specifies the logon mode table associated with each logon mode name. This table specifies the session parameters used in a session between Connect:Enterprise and CICS or ISPF. You must supply the name of your logon mode table.

## Defining a Log Mode Entry for the APPC Interface

If you use the Connect:Enterprise CICS interface or the ISPF interface, you must create a Mode Table Entry for the APPC interface. The following is an example of a Mode Table Entry for the APPC interface. For parameter descriptions or definitions see the IBM VTAM documentation.

```

MODEAPPC TITLE      'LU 6.2 MODETAB'                                72
      EJECT
MODEAPPC MODETAB
*
* LU 6.2 MODETAB      IMAGES
LU62      MODEENT      LOGMODE=LU62, FMPPROF=X'13', TSPPROF=X'07',          X
                        SECPROT=X'B0', COMPROT=X'D0B1', RUSIZES=X'8989',      X
                        PRIPROT=X'B0', PSERVIC=X'060200000000000000000300'
SNASVCMG MODEENT      LOGMODE=SNASVCMG, FMPPROF=X'13', TSPPROF=X'07',      X
                        SECPROT=X'B0', COMPROT=X'D0B1', RUSIZE=X'8989',      X
                        PRIPROT=X'B0', PSERVIC=X'060200000000000000000300'
      MODEND
      END

```

## Generating Network Control Program (NCP) Information

An NCP generation may be required to use SNA LU Type 1 RJE devices with Connect:Enterprise. If these devices are included in an NCP generation for JES2, you may not have to perform this again as the Connect:Enterprise NCP requirements are nearly identical to the JES2 requirements. However, if you are using the Connect:Enterprise Auto Connect function for host-initiated calls to remote sites on switched lines, you must specify CALL=INOUT on one or more LINE statements for switched lines. If your network supports LU type 1 RJE devices with JES2, other NCP changes are probably not necessary. Verify with your VTAM programmer to determine if changes are needed.

The installation instructions that accompany your remote devices explain how to define them in your NCP generation. Refer to them or to the appropriate IBM manuals for more information about NCP generation. Chapter 10, *Setting Up Connections to Other Communications Products*, in the *Connect:Enterprise for z/OS Administration Guide* supplies a sample NCP generation that supports LU Type 1 RJE devices on dedicated or switched lines.





---

# Unloading the Distribution Tape

This chapter describes the contents of the distribution tape and how to unload it. Before you begin the unload procedure, review *Connect:Enterprise for z/OS Release Notes* to ensure that your system meets all requirements.

---

## Contents of the Distribution Tape

The Connect:Enterprise distribution tape has standard labels and contains the files listed in the following table:

Distribution File	Contents
CE.DUMMY	Reserved for maintenance readme information.
CE.EXAMPLE	Connect:Enterprise example library that contains sample scripts and jobs.
CE.OBJECT	The Connect:Enterprise object modules.
CE.SOURCE	Macros required to install Connect:Enterprise on your system. Only required macros are released in the CE.SOURCE file. Most of Connect:Enterprise is not released in source form.
CE.LOAD	The link-edited Connect:Enterprise load modules. Contains all the necessary load modules.
CEISPF.ISPLLIB	Contains the ISPF load library.
CEISPF.ISPPLIB	Contains the ISPF panel library.
CEISPF.ISPSLIB	Contains the ISPF skeleton library.
CEISPF.ISPMLIB	Contains the ISPF message library.

Distribution File	Contents
CEISPF.ISPTLIB	Contains the ISPF table library.
CEISPF.VSAM	Contains the ISPF administration file data records.
CECICS.LOAD	Contains the link-edited CICS interface load modules. The load modules must reside in a library that is defined by DFHRPL in your CICS system startup JCL.
CECICS.VSAM	Contains the CICS administration file records.
CE.MIB	Management Information Base needed for SNMP traps.

The first file is reserved for Connect:Enterprise maintenance readme information. The CE.EXAMPLE, CE.OBJECT, CE.SOURCE, and CE.LOAD files must be unloaded to provide access to the library that contains example jobs and scripts and to those other components that enable you to complete the installation and configuration. See *Unloading the Distribution Tape and Allocating Libraries* on page 26 for instructions to unload the tape and an example JCL.

## Unloading the Distribution Tape and Allocating Libraries

The example JCL included in this section allocates the Connect:Enterprise libraries and creates the output files listed in the following table. Connect:Enterprise documentation uses the data set names listed in the table. You can preallocate the libraries and name them according to your internal naming conventions.

DSN	FORMAT	LRECL	BLKSIZE	DIR.BLOCKS
ENTPRS. EXAMPLE	FB	80	6320	30
ENTPRS. OBJECT	FB	80	3200	250
ENTPRS. SOURCE	FB	80	6144	300
ENTPRS. LOAD	U	0	6144	100
ENTPRS.MIB	VB	256	32760	-

To unload the Connect:Enterprise distribution tape to your system libraries:

1. Create the JCL on page 27.
2. Follow the instructions in the example JCL on page 27 and modify the following parameters as required for your system:
  - ◆ VOL=SER=
  - ◆ UNIT=
  - ◆ If you rename the libraries, modify the output DSN= parameter.

## 3. Supply a valid job card and submit the JCL.

```

//JOB CARD JOB PLACE YOUR JOB CARD HERE
//*****
//*      IEBCOPY/IEBGENER UNLOAD OF Connect:Enterprise TAPE
//*      REPLACE XXXX WITH VALID UNIT TYPE
//*****
//STEP01 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//EXIN DD DISP=SHR,DSN=CE.EXAMPLE,VOL=(,RETAIN,SER=ENTPRS),
// UNIT=3480,LABEL=2
//EXOUT DD DSN=ENTPRS.EXAMPLE,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(30,2,30))
//OBIN DD DISP=SHR,DSN=CE.OBJECT,VOL=(,RETAIN,SER=ENTPRS),
// UNIT=3480,LABEL=3
//OBOUT DD DSN=ENTPRS.OBJECT,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(500,2,250))
//SOIN DD DISP=SHR,DSN=CE.SOURCE,VOL=(,RETAIN,SER=ENTPRS),
// UNIT=3480,LABEL=4//SOOUT DD DSN=ENTPRS.SOURCE,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(750,2,150))
//SOOUT DD DSN=ENTPRS.SOURCE,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(750,2,150))
//LOIN DD DISP=SHR,DSN=CE.LOAD,VOL=(,RETAIN,SER=ENTPRS),
// UNIT=3480,LABEL=5
//LOOUT DD DSN=ENTPRS.LOAD,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(400,2,75))
//SYSUT3 DD UNIT=SYSDA,SPACE=(CYL,(5,5),RLSE)
//SYSUT4 DD UNIT=SYSDA,SPACE=(CYL,(5,5),RLSE)
//SYSIN DD *
C O=EXOUT,I=EXIN
C O=OBOUT,I=OBIN
C O=SOOUT,I=SOIN
C O=LOOUT,I=LOIN
/*
//STEP02 EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//SYSUT1 DD DISP=SHR,DSN=CE.MIB,VOL=(,RETAIN,SER=ENTPRS),
// UNIT=3480,LABEL=14
//SYSUT2 DD DSN=ENTPRS.MIB,
// DISP=(,CATLG,DELETE),UNIT=XXXX,
// SPACE=(TRK,(2,2))

```

## Installing the License Management Key

The temporary and permanent key files are supplied as text files named *nnnnn.txt*, where *nnnnn* is a number assigned by Sterling Commerce. Each key file is sent to you as an attachment to an e-mail. The temporary and permanent license key file must be applied on the computer where Connect:Enterprise is installed. You cannot run Connect:Enterprise without an AP Key file. It must be installed and available for Connect:Enterprise at initialization.

To apply the temporary and permanent key file:

1. Copy the temporary license key file from the Sterling Commerce e-mail to the <pathname> directory.
2. Rename the temporary license key file to **license.key**.

---

**Caution:** Do not edit the *nnnnn.txt* file or the *license.key* file. Text editors may insert a carriage return or truncate lines, which will invalidate the key file.

---

3. Request the permanent license key file using one of the following methods:
  - ◆ Reply to the Sterling Commerce e-mail containing your temporary license key file and include the CPU ID of the system where Connect:Enterprise is installed.
    - a. To obtain the CPU ID of your system, type `D M=CPU` and press **Enter** in any LPAR. Copy and paste the entire result into the e-mail reply sent to Sterling Commerce. You must run this console command on each CPC containing LPARs licensed to run Connect:Enterprise.
  - ◆ Request the license key file from Support On Demand:
    - a. Log in to the Sterling Commerce Support On Demand Web site. If you do not have a Support On Demand user name and password, follow the instructions in *Connect:Enterprise for z/OS Release Notes*.
    - b. Under Product Family Support, highlight **Connect** and click **Key Request**. The Connect Product Key Request page is displayed.
    - c. Type the information in the required fields and click **Submit**.  
You will receive the permanent license key file through e-mail in approximately 24 to 48 hours.
4. Make a copy of the original permanent license key file and keep it in a safe place.
5. Download the APKey File to a sequential data set that is defined to contain variable length records with a record length of 256 bytes.

---

**Caution:** Ensure your APKey file is not overlaid by an empty file. If your APKey file is empty, Connect:Enterprise does not initialize. If the file is overlaid by an empty file after the system is initialized, Connect:Enterprise continues to run but error messages are produced. See the *Connect:Enterprise for z/OS Messages and Codes Guide* for further information.

If the APKey fails when you start Connect:Enterprise, check the APKey file. Sometimes during translation (depending on the translation character set), full bars (|) are replaced by pipes (|). Replace any pipes with full bars.

Do not make any other changes to the APKey file. Other changes can result in the following message and render the APKey file invalid:

```
CMB2304E - C:E AP APSM008E ASSET PROTECTION KEY FILE INVALID,  
RC=nnnn.
```

---

If multiple CPU-ID values are specified, make sure that a solid vertical bar separates them. Sometimes an ASCII solid vertical bar translates into an EBCDIC broken vertical bar or some other character when the AP Key File is uploaded to the mainframe. If the vertical bar is not solid, edit the file and change only this character to be a solid vertical bar (hex '4F').

Example: E CPU-ID 01xxxxxxxx|02xxxxxxxx|03xxxxxxxx

6. Save the data set. Make a note of the data set name to use in the APDSN parameter.
7. Use the data set name in the APDSN parameter in the \*OPTIONS section of the Options Definition File (ODF). See the ODF chapters of the *Connect:Enterprise for z/OS Administration Guide* for more information on creating your site-specific ODF.
8. Go to Chapter 4, *Creating the VSAM File Server*, to continue the installation.

---

## Connect:Enterprise Example Members

The ENTPRS.EXAMPLE file contains sample jobs and scripts that are referred to throughout the Connect:Enterprise documentation. The example members are listed in alphabetical order in the following table. See *CICS Interface Files* on page 33 and *ISPF Interface Files* on page 35 for the contents of the libraries related to the CICS interface and the ISPF interface.

Example Member	Description
\$RCON	Console Application Agent rules example
\$REOB	End-of-Batch Application Agent rules example
\$RLOG	Logging Application Agent rules example
\$RSCH	Scheduler Application Agent rules example
\$RWKT	Wake -up Terminate application agent rules example
ALLOCBTS	Allocate and catalog the Connect:Enterprise BTSNAP data set
ALLOCDMP	Allocate and catalog the Connect:Enterprise dump data set
ALLOCEMV	Allocate and catalog the Connect:Enterprise environment variables data set
ALLOCRTR	Allocate and catalog the Connect:Enterprise rules trace data set
ALLOCRU1	Allocate and catalog the Connect:Enterprise rules data set
ALLOCRU2	Allocate and catalog the Connect:Enterprise rules JCL data set
ALLOCSCP	Allocate and catalog the Connect:Enterprise script data set
ALLOCSNP	Allocate and catalog the Connect:Enterprise snapshot data set
ALLOCTRN	Allocate and catalog the Connect:Enterprise translate table data set
ASMLKXIT	Assemble and link user exits

<b>Example Member</b>	<b>Description</b>
ASMMODT	Assemble and link the mode table entry
ASMTTC10	Assemble and link STTC10 after BTAM maintenance
ASMUMT	Connect:Enterprise assembly for user message table STUTAUMT
ASMUSST	Assemble and link the USS table entry
CONV\$VCF	Convert from Post-release 2.1.00 Mailbox VCF file to Connect:Enterprise 1.0.00 VCF file
CONVERT	Convert pre-release Connect:Mailbox 2.1.00 batch queues into pre-release Connect:Enterprise 1.0.00 batch queues
CONVXLAT	Create a custom table used by Connect:Enterprise to translate data between ASCII and EBCDIC for FTP session processing
CSCADD	Add a data set to the Connect:Enterprise VSAM batch queues using the Cross System Client Utility
CSEXTE	Extract a data set from the Connect:Enterprise VSAM batch queues using the Cross System Client Utility
CSCLIST	List the batch queue directory entries using the Cross System Client Utility
CSCSTAT	Change Connect:Enterprise VSAM batch status flags using the Cross System Client Utility
DATAVAR	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use the DATAMODE, DATASTRU, and DATATYPE variables to change the default settings for an ODF *REMOTES definition
DELAY	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates how to log on to an FTP server using Retry with a Delay
DUMMY	Dummy record with key of hex zeros, used to Initialize the VSAM files
ENTPRS	Execute (BSC/SNA/FTP) Connect:Enterprise online
ENTPRSI	Execute (ICO) Connect:Enterprise online
FALL\$VCF	Convert back to post-release 2.1.00 VCF file
FALLBACK	Convert back to pre-release 2.1.00 batch queues
FIREWALL	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates going through a proxy firewall
FTPACVAR	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to display all Connect:Enterprise REXX variables
FTPLOGON	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates how to use the IPADDR, PORTNO, USERID, PASSWORD, and NEWPASS variables specified in the ODF *REMOTES definition
GENOPT	Generate the Options Definition File
GETCPUID	Obtain CPUID

<b>Example Member</b>	<b>Description</b>
HOSTADDR	Connect:Enterprise sample script to return the IPADDR of a host name
HOSTNAME	Connect:Enterprise sample script to return the host name of an IPADDR
IDANDBID	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use the ID and BID variables to select batches
IEFBR14	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that does nothing; used if AC_SCRIPT not written
JCREXBC1	Diagnostic aid run by customer to REPRO out selected batches and transmit them to the Sterling Commerce Support site
JCREXBC2	Diagnostic aid run by Sterling Commerce support to retrieve the batch(es) sent by JCREXBC1, and REPRO them to an in-house database.
LIST1	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use the IDLIST variable specified in the ODF *CONNECT definition when the session has already been established
LIST2	Connect:Enterprise sample AC_SCRIPT for FTP auto client illustrates how to use the BEGINLIST and IDLIST variables in the ODF *CONNECT definition when the session has already been established
LIST3	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use the BEGINLIST, IDLIST, and ENDLIST variables in the ODF *CONNECT definition when the session has already been established
LIST4	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use the IDLIST and ENDLIST variables in the ODF *CONNECT definition when the session has already been established
LOCDIR	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to use LOCDIR variables to send only batches whose Transmitted flag is off
MODETAB1	Logon mode table for use with Connect:Enterprise
NOBATCH	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates how to simulate NOBATCH=NC. If there are no batches in a particular mailbox, do not sign on the remote; otherwise, sign on using FTP logon Exec.
OPTBSC	Generate the Options Definition File (BSC)
OPTDEF	Generate the Options Definition File
OPTFTP	Generate the Options Definition File (FTP)
OPTSNA	Generate the Options Definition File (SNA)
PASSTABD	Connect:Enterprise sample password table for sample Exec PASSTABL
PASSTABL	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates how to use an external table to supply a password and new password to a log on sequence
PRTSNAP	Print Connect:Enterprise snapshot data set

<b>Example Member</b>	<b>Description</b>
RECVONLY	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to receive data from an FTP server
RECVSEND	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to receive from then send to an FTP server
REORG	Example job of how to reclaim space on your VSAM files caused by CA/CI splits
RETRY	Connect:Enterprise sample LOGON_SCRIPT for FTP auto client that illustrates how to log on to an FTP server using Retry with no Delay
SENDONLY	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to send data to an FTP server
SENDRECV	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to send to then receive from an FTP server
SRVPROC	Generate the process to start the VSAM server
SRVRESET	Reset the VSAM I/O server
STREXBCC	Create IDCAMS control cards to REPRO batches from customer database (used by customer); filter VCFSEQ, VPFSEQ and VBQSEQ records (used by customer); and update VCFSEQ, VPFSEQ, VBQSEQ, MSTRSEQ records (used by Sterling Commerce Support)
STUTAPFR	Database utility - Rebuild VPF file from VCF file
STUTAVIX	Example JCL that can be used to run the VCF Alternate Index Key Verification Utility
SWITCH1	SYS1.VTAMLST(Switch1) define switched major node for PC-TRACS 3770 site
TZ	UNIX environment variables
UNIXFTP	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to send and receive data from a UNIX FTP server
UNIXRDX	Connect:Enterprise sample AC_SCRIPT for FTP auto client that illustrates how to send and receive data from a Connect:Enterprise UNIX FTP server
UNLOAD	IEBCOPY unload of Connect:Enterprise tape
USERASM	Run the Connect:Enterprise user assembly
USERASMX	Run the Connect:Enterprise user assembly optional: only needed if planning to use force command. The BSC \$\$STOP LINE=xxxxxx,force command requires that each BSC have its own DD in the Connect:Enterprise JCL.
USSTAB1	MVS CBIPO USS table
VCF2048	Convert the VCF from a record size of 768 to 2048.
VCFRESIZ	Convert the VCF from a record size of 2048 to 768.
VERIFYRL	Application agent rules verification utility
VSAMAIX1	Example JCL that can be used to define and build an alternate index, and define the path name



<b>Example Member</b>	<b>Description</b>
VSAMBKUP	Run STUTABKS to prevent new STOUTL Move or Erase jobs from running (used for 24x7 Backup Facility)
VSAMDEF	Define VSAM files (VPF, VCF, VBQS, VLFS)
XADD	Add a data set to the Connect:Enterprise VSAM batch files
XDELETE	Flag batches as deleted from the Connect:Enterprise VSAM file
XERASE	Erase batches from the Connect:Enterprise VSAM batch files
XEXTRACT	Extract batch(es) from Connect:Enterprise VSAM batch files
XLIST	List Connect:Enterprise batches
XMOVE	Move a batch from one VSAM batch file to another
XPURGE	Purge batch(es) from Connect:Enterprise VSAM batch files (initialize the VSAM files)
XPURGEX1	Example JCL that can be used to identify an alternate index to Connect:Enterprise, populate VCF key fields, and provide complete implementation instructions
XPURGE64	Example JCL to convert pre-Version 1.4 VPF/VCF files and allow execution in the expanded Batch ID environment (BID64).
XREPORTS	Generate Connect:Enterprise reports: <ul style="list-style-type: none"> <li>◆ Auto Connect Detail Report - All</li> <li>◆ Auto Connect Detail Report - FTP Only</li> <li>◆ Auto Connect Queue Report</li> <li>◆ Auto Connect Summary Report</li> <li>◆ Offline Utility Log Report</li> <li>◆ Remote Connect Detail Report</li> <li>◆ Remote Connect Summary Report</li> </ul>
XSTATFLG	Change Connect:Enterprise VSAM batch status flags
XVERIFY	VSAM database verification utility, which reports and/or repairs VSAM file problems

## CICS Interface Files

The ENTPRS.EXAMPLE library contains the following example members specific to the CICS interface.

<b>CICS Example Member</b>	<b>Description</b>
CECICIN1	Define Connect:Enterprise CICS interface resources (CSD definitions) for new installations, including files, programs, mapsets, and transactions
CECICIN2	Define Connect:Enterprise CICS interface resources (CSD definitions), including connections and sessions
CECICRNM	Rename the CICS interface programs and mapsets
CECICUP0	Define Connect:Enterprise CICS interface resources (CSD definitions). <b>Note:</b> Use only for upgrading from Connect:Enterprise 1.0.00 to add new CSD definitions.
CECICUP1	Define Connect:Enterprise CICS interface resources (CSD definitions). <b>Note:</b> Use only for upgrading from Connect:Enterprise 1.1.00 to add new CSD definitions.
CECICUP2	Define Connect:Enterprise CICS interface resources (CSD definitions). <b>Note:</b> Use only for upgrading from Connect:Enterprise 1.2.00 to add new CSD definitions.
CECICUPM	Define Connect:Enterprise CICS interface resources (CSD definitions) if you are upgrading from any version of Connect:Mailbox to Connect:Enterprise.
CECIUNLD	Unload the CICS interface release tape to system libraries.
CECIVDEF	Define the CICS interface VSAM administration file.
CECIVREP	Repro the CICS interface VSAM administration file data.

The ENTPRS.SOURCE library contains the following members related to the CICS interface:

<b>Member</b>	<b>Description</b>
APISAMP1	<p>The source code for the first of three sample API programs. It is an Assembler Language CICS Command Level program that is the target of the Wake Up request from Connect:Enterprise. When this transaction (CES1) is initiated, an IPS from Connect:Enterprise is received. A REQUEST IPS is immediately returned to Connect:Enterprise to receive the recently added batch.</p> <p>The batch data is written into a Temporary Storage Queue for a REQUEST. See the <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> for more information.</p> <p>Before you assemble and execute the sample APISAMP1 program, you must change several lines of code for your site-specific definitions. Locate every occurrence of the label H00SNAME and change it to specify your Connect:Enterprise system symbolic name. Check the CICS interface Panel 1.3 or 1.5 to determine the symbolic name if you are unsure of the assigned name. Additionally, each reference to H00SUSER and H00SPSWD is modified to specify the user ID and password required by your Connect:Enterprise system. If you do not have security active in the Connect:Enterprise system you are using, these fields do not require changes.</p>

Member	Description
APISAMP2	<p>The source code for the second of three sample API programs. It is an Assembler Language CICS Command Level program that is started by transaction CES1 at the completion of the first sample program. The batch data is retrieved from Temporary Storage and sent to Connect:Enterprise for an ADD.</p> <p>When the ADD is completed and acknowledged by Connect:Enterprise, an Initiate Auto Connect command is formatted and sent to Connect:Enterprise. The API program of your designation is notified when the Auto Connect completes. See the <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> for more information.</p> <p><b>Note:</b> Before you assemble and execute the sample APISAMP2 program, change the code for the labels H00SNAME, H00SUSER, and H00SPSWD as explained for APISAMP1.</p>
APISAMP3	<p>The source code for the last of three sample API programs. It is an Assembler Language CICS Command Level program specified (by transaction CES2) as the transaction notified at the completion of the Auto Connect started by the second sample program.</p> <p>When this transaction (CES3) is initiated, it may receive the IPS from Connect:Enterprise containing messages from the terminated Auto Connect. See the <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> for more information.</p>
C\$Axx, C\$Hxx, C\$Oxx, C\$Rxx, C\$Uxx, C\$Wxx	<p>These macros describe the request blocks that are sent to Connect:Enterprise by the CICS interface or the User API. For more information about the structure of the interface parameter and header data (C\$H00), refer to the <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i>. For a list of IPS Trailers (C\$Axx, C\$Oxx, C\$Rxx, C\$Uxx, C\$Wxx) refer to the <i>IPS Trailers</i> appendix in the <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i>.</p>
C\$CTLCA	<p>A macro that defines the control COMMAREA utilized by the User Application Programming Interface to identify IPS data that is exchanged by a Temporary Storage Queue. The control COMMAREA is passed to CE62002 using a CICS LINK command.</p>
C\$VSAM	<p>A macro that defines the CICS interface VSAM record images that are provided as part of the parameter block defined by the member EXITS.</p>
EXITS	<p>A DSECT that defines the parameter data that is provided to all user-written exits available within the CICS interface. Requires C\$VSAM, C\$U28, C\$O37 through C\$O64, C\$O74 and C\$O77 for redefinition of embedded record areas.</p>
EXITSAMP	<p>The source code of a sample exit program. It is an Assembler Language CICS Command Level program that demonstrates the techniques possible within user-written exits. All available exit types are included in this sample program.</p>

The ENTPRS.OBJECT and ENTPRS.CICS.LOAD libraries contain the object and load modules for all of the CICS interface programs and mapsets.

## ISPF Interface Files

The ENTPRS.EXAMPLE library contains the following example members the specific to the ISPF interface.

<b>ISPF Example Member</b>	<b>Description</b>
ALLODIAG	Example JCL to allocate Connect:Enterprise Snapout and Btsnap data sets in TSO logon process
ALLOISPF	Example JCL to allocate Connect:Enterprise ISPF libraries in TSO logon process
APPLDEF	Example VTAM application definition for Connect:Enterprise ISPF
ISPCNVRT	Example JCL to run the ISPF Model Convert Utility
ISPDEFDG	Example JCL to allocate and catalog the Connect:Enterprise ISPF Snapout and BTSNAP data sets
ISPUNLOD	IEBCOPY unload of Connect:Enterprise ISPF interface
ISPVSMDF	Define the ISPF interface VSAM administration file
ISPVSMRP	Repro the ISPF interface VSAM administration file data
ISR@PRIM	Sample ISPF primary menu with Connect:Enterprise option
LIBDEF	Connect:Enterprise ISPF interface startup CLIST (Invoked from ISPF environment)
MODEAPPC	LU6.2 mode table for Connect:Enterprise ISPF interface
MOVETYPE	Sample ISPF edit macro to move TYPE= after NAME= in remote definitions

The ENTPRS.SOURCE library contains the following members related to the ISPF interface:

<b>Member</b>	<b>Description</b>
C\$005	Macro that maps the IPS trailer used to communicate with Connect:Enterprise. Typically, this trailer is used for DUMP requests, but is used in the ISPF security exits only as means to obtain the request ID.
C\$H00	Macro that maps the IPS header, which identifies the user ID and encrypted password that is passed to the Connect:Enterprise system and the Connect:Enterprise system (and release level) the request is for. It also identifies the request type that is being sent to the Connect:Enterprise system.
MZMCPFIX	Initiation security exit used to restrict individual or groups of interface functions to certain users.
MZAPCFRX	Function request security exit to restrict communications to certain Connect:Enterprise systems and reject communications requests made to Connect:Enterprise systems.
Z\$CMID	Macro used by the ISPF interface programs which address fields in the Connect:Mailbox authorized user table. This table data is displayed on panel MZD60. Provides a DSECT for the list of authorized user IDs and related data fields.

The ENTPRS.OBJECT and ENTPRS.ISPF.ISPLLIB libraries contain the object and load modules for all of the ISPF interface programs.

---

# Creating the VSAM File Server

After unloading the Connect:Enterprise release tape, you must perform the following tasks:

- ◆ Set up the VSAM file server
- ◆ Define and initialize the VSAM batch files

This chapter provides the procedures to complete these tasks.

In addition, you may want to create a VCF alternate index to improve the execution of the offline utilities. The offline utilities, which perform tasks such as adding and extracting batches from the VBQs, are discussed in the *Connect:Enterprise for z/OS User's Guide* and comprise a major component in Connect:Enterprise. The VCF alternate index provides more information to the STOUTL program, which executes the offline utility programs, enabling it to select the most efficient path to access files and run in the most efficient manner possible. To implement this feature, see *Creating a VCF Alternate Index* on page 46.

---

## Setting Up the VSAM File Server

The VSAM file server manages all VSAM files and performs all VSAM I/O operations. Each Connect:Enterprise system you define and run must use its own VSAM file server. Within each system, the VSAM file server executes as a subsystem.

Each VSAM file server is given a unique, user-defined, four-character name. All other address spaces, that is, the Connect:Enterprise online system and STOUTL offline utilities, use the VSAM file server name to communicate with it.

To set up the VSAM file server:

1. Edit the SRVPROC member of the ENTPRS.EXAMPLE library. Change SRVNAME to be the PROCLIB member name.

---

**Note:** You can assign any name. However, do not assign a PROCLIB member name identical to the NAME= parameter chosen as the file server name. This starts the Process in its own subsystem on subsequent starts, resulting in JCL errors.

---

## 2. Change the following JCL:

Parameter	Description
NAME= <u>SRV1</u>	The 4-character VSAM file server name in the PROC statement, also known as the subsystem name. You can later change the server name if desired, but if you do you must also change all offline utilities and online Connect:Enterprise nodes that reference the VSAM file server name. This parameter is required.
EPVT (Extended Private Storage Area)	Specifies the number of 4-KB storage blocks of extended private storage to allocate above the 16-MB line. The default value is 22000. Use the default storage value until you have an understanding of your repository configuration. After your repository is configured and running, you can adjust this value to reflect the storage used by your system. Use the Excel spreadsheet provided with the Connect:Enterprise for z/OS documentation set to determine the VSAM file server storage requirements when you are ready to adjust the storage value. For more information, see <i>Calculating the EPVT Storage Allocation Value</i> on page 40.  This parameter is optional unless you need to modify any of the positional parameters that follow it (PVT, RETRY, STRNO, LSRBUF or QRBNO).
PVT	Specifies the number of 4-KB storage blocks of private storage to allocate below the 16-MB line. The default value is 8 (32 KB). Use the default storage value until you have an understanding of your repository configuration. After your repository is configured and running, you can adjust this value. For information on how to obtain this value, see the note on page 40.  This parameter is optional unless you need to modify any of the positional parameters that follow it (RETRY, STRNO, LSRBUF or QRBNO).
QRBNO (Queue Request Block Number)	Specifies the number of Queue Request Blocks to pre-allocate for use by the PC Manager. The default is 500 and the maximum is 65535. Use the default QRBNO unless your VSAM Server gets the message, <i>BTB137E - All PcSrv QRBS in Use</i> . If the message persists even after increasing QRBNO, contact Sterling Support.  This parameter is optional.
RETRY	Specifies the number of iterations the VSAM File Server task retries an I/O request before posting a failure status to the requestor. The default value is 120. A one second WAIT occurs between each attempt to complete the requested VSAM operation so the default could accumulate up to a two minute delay (120 x 1 seconds = 120 seconds) for the requesting task.  This parameter is optional unless you need to modify any of the positional parameters that follow it (STRNO, LSRBUF or QRBNO).  <b>Caution:</b> The value set here affects all users of the VSAM File Server so tasks, such as the Connect:Enterprise STMAIN task (Operator command processing and SNA/BSC remote processing), the CP task (APPC Interface Users), and the FTP Thread task (FTP Remote) may give the impression they are hung in a long wait when in fact they are really in their normal WAIT condition until the Server posts their I/O request as successful or failed.
STRNO (String Number)	Specifies the maximum number of concurrent VSAM requests allowed, for each file. Valid values are 1–255. The default value is 128.  This parameter is optional unless you need to modify any of the positional parameters that follow it (LSRBUF or QRBNO).

Parameter	Description
LSRBUF (Local Shared Resource Buffers)	Specifies the maximum number of LSR buffers that VSAM allocates to service I/O requests for each file. Valid values are 3–65535. The default value is 256.  This parameter is optional unless you need to modify QRBNO.
STEPLIB	Specifies the Connect:Enterprise load library. This data set must be an APF-authorized library defined during installation.

See *Calculating the EPVT Storage Allocation Value* on page 40 for the calculations used to determine the default EPVT storage allocation value and a worksheet to calculate the EPVT value for your site if you need to modify the default value.

3. Change YOUR.PROCLIB to a JES-defined PROCLIB and then run job SRVPROC which will use IEBGENER to copy your modified PROC to the specified PROCLIB.

---

**Note:** Do not include the name of the VSAM file server in the IEFSSNnn member of SYS1.PARMLIB. Although the VSAM file server executes as a subsystem, it dynamically adds itself to this table when it starts.

---

4. Issue the following console command to start the VSAM file server:

```
S procname, NAME=xxxx
```

where *procname* is the PROCLIB member name and *xxxx* is the file server name. If your VSAM file server is named SRV1, you can omit the NAME= parameter.

The console displays the following message when the VSAM file server is set up and running:

```
BTB002I : VSAM server initialization complete
```

---

**Note:** The VSAM file server must have update access to all applicable VSAM data sets. Ensure that appropriate system security rules have been implemented to permit this.

---

## Calculating the EPVT Storage Allocation Value

In the Connect:Enterprise for z/OS documentation set, an estimation tool spreadsheet is provided to show the major calculations used to set the VSAM server extended private storage (EPVT) allocation default value of 22000 (the pink cell in the following table). When you open that Excel spreadsheet, you see the following table along with instructions on how to use the spreadsheet if you need to change the default EPVT storage value to meet your processing needs.

Factor	Bytes	Number	Total
BTVMSMRV QRBNO= (default 500)	n/a	500	n/a
VBQ IDCAM Define Max RECSZ=	32570	n/a	n/a
VSAM Server Overhead	216704	1	216704
Number of VPFs defined via STOUTL Purge	1920	1	1920
Number of VCFs defined via STOUTL Purge	3840	1	3840
Number of VBQs defined via STOUTL Purge VBQALLOC=	34080	20	681600
Number of VLFs defined via STOUTL Purge VLFALLOC=	2592	8	20736
Estimated Number Concurrent FTP Threads	38272	1998	76467456
ODF *OPTIONS MAXCP	38272	99	3788928
ODF *OPTIONS MAXRP=	2688	99	266112
Estimated Number Concurrent Offline Jobs	71424	100	7142400
			88589696
		BTVMSMRV EPVT =	21628 (22000)

To gather information on the factors used to calculate the EPVT which you can change based on your system, refer to the following table for more information. These cells are shaded gray in the table above.

**Note:** The CMB289I message issued by STMAIN when you issue the \$LIST RESOURCES command or when STMAIN is shut down shows the EPVT and PVT 4K-pages allocated and used. This message can be used to help set EPVT / PVT values for your environment as shown by the following example:

```
CMB289I - EPVT VSAM SERVER STORAGE POOL ALLOCATED/USED PAGES
220000/04080
CMB289I - PVT VSAM SERVER STORAGE POOL ALLOCATED/USED PAGES 00008/00002
```



Factor	Description and for More Information
BTVSMSRV QRBNO= (default 500)	Specifies the number of Queue Request Blocks to pre-allocate for use by the PC Manager. For more information, see the parameter table on page 38 which describes the JCL parameters in the SRVPROC member used to set up the VSAM file server.
VBQ IDCAM Define Max RECSZ=	Specifies the maximum record size allowed for VBQ files. For more information, see the parameter table on page 43 which describes the JCL parameters in the VSAMDEF member used to define VSAM batch files.
Number of VBQs defined via STOUTL Purge VBQALLOC=	Specifies the number of VBQ files that online Connect:Enterprise allocates when it is brought up for the first time. For more information, see the parameter table on page 45 which describes the JCL parameters in the XPURGE member used to initialize the VSAM batch files.
Number of VLFs defined via STOUTL Purge VLFALLOC=	Specifies the number of VLF files that online Connect:Enterprise allocates when it is brought up for the first time. For more information, see the parameter table on page 45 which describes the JCL parameters in the XPURGE member used to initialize the VSAM batch files.
Estimated Number Concurrent FTP Threads	Specifies the maximum number of FTP threads expected to be running at any one time, both auto connect and remote connects. To provide enough storage for all defined FTP threads, set the value to the sum of the ODF parameters, FTP_MAX_CLIENT_THREADS and FTP_MAX_SERVER_THREADS. For more information, see the descriptions for these ODF parameters in Chapter 5, <i>Configuring ODF Records for FTP Connections</i> , in the <i>Connect:Enterprise for z/OS Administration Guide</i> .
ODF *OPTIONS MAXCP	Specifies the maximum number of command processor tasks (from 1–99) allowed to run concurrently as defined in the Options Definition File (ODF). For more information, see Chapter 3, <i>Configuring *OPTIONS Record for System Resources</i> , in the <i>Connect:Enterprise for z/OS Administration Guide</i> .
ODF *OPTIONS MAXRP=	Specifies the maximum number of rules processor tasks (from 1–99) allowed to run concurrently for application agent processing as defined in the Options Definition File (ODF). For more information, see Chapter 3, <i>Configuring *OPTIONS Record for System Resources</i> , in the <i>Connect:Enterprise for z/OS Administration Guide</i> .
Estimated Number Concurrent Offline Jobs	Specifies the maximum number of STOUTL and CSC/ICO batch jobs that you expect to run concurrently in your system.

---

## Defining and Initializing the VSAM Batch Files

The VSAM batch files are key-sequenced VSAM data sets that store all data collected from remote sites and all data available for transmission to remote sites. This data is grouped into batches.

The VSAM batch files are accessed by both online Connect:Enterprise and the offline utilities. The VSAM batch files must be defined to VSAM and initialized before use by Connect:Enterprise. After the VSAM files are defined and initialized, you can allocate and deallocate them using the online `$$ALLOC` and `$$DALLOC` console commands. You must also include the batch files in your standard backup and restore procedures.

The following data sets make up the VSAM batch files:

File Name	Description
VPF	The VSAM Pointer File (VPF) is the main control file used by Connect:Enterprise to locate and control transmission and collection of data. The VPF automatically locates batches when you supply the batch identifiers for both online Connect:Enterprise and the offline utilities. For normal Connect:Enterprise operation, you do not need to know where a particular batch resides.
VCF	The VSAM Control File (VCF) reflects the status and characteristics of a batch.
VBQ01–VBQ20	The batch data records are written to and read from the VSAM Batch Queues (VBQs). At least one VBQ must be defined. The maximum number of VBQs is 20.
VLF1–VLF8	VSAM Log Files (VLF). At least 1 VLF must be defined. The maximum number of VLFs is 8.

For SNA batches, the maximum VSAM batch files record size is 32,570 characters. This includes 32,553 data characters and a 17-byte key. For BSC batches, the maximum VSAM batch files record size is 4113 characters. This includes 4096 data characters and a 17-byte key. The remote sites must never send more than 4096 characters per block of data (including BSC control characters). The 4096-character restriction is BSC-specific.

The following tasks define and initialize the VSAM batch files:

- ◆ Defining the VSAM batch files using the VSAMDEF JCL from the example library on the release tape
- ◆ Defining the VSAM batch files

You must create a VSAM cluster for each Connect:Enterprise VSAM file (VPF, VCF, VBQ 01–20, and VLF 1–8).

To define the VSAM batch files:

1. Edit the VSAMDEF member in ENTPRS.EXAMPLE.
2. Change the parameters listed in the following table:

Parameter	Description
Data Set Names	Replace all data set names in VSAMDEF with names of your choice.
Volumes	Provide the proper volume information for each VSAM file.
??	Allocate space as required for your use.
Records (first occurrence)	The records value for the VPF. This value must be the maximum batch number allowed for your Connect:Enterprise system multiplied by 10, plus 25.
Records (second occurrence)	The RECORDS value for the VCF. This value must be 2 greater than the maximum batch number for your Connect:Enterprise system.
RECSZ (VBQ files only)	The maximum record size allowed. Records larger than 4096 can only be transmitted to a site running Connect:Enterprise. Offline-added, APPC-added, or FTP-collected batches can contain records up to 32,570 bytes. The minimum size for the VBQ files must be large enough to accommodate the maximum transmission block plus 17 bytes for the key. The RECSZ should be identical for each VBQ to eliminate confusion later.
SHAREOPTIONS	Specify 2 for all VSAM files. This enables you to run offline utilities without bringing down online Connect:Enterprise.

3. Submit the JCL.
4. Verify that the REPRO step in the sample JCL is executed.
5. REPRO writes an 80-byte dummy record, containing hexadecimal zeros in the first 17 bytes, to the VSAM files. A sample dummy record is provided in ENTPRS.EXAMPLE in the DUMMY member.
6. After ensuring that the VSAM file server is active, run the PURGE offline utility to initialize all control records.

## Initializing the VSAM Batch Files

After you define the VSAM batch files, you initialize them by running the PURGE offline utility. The PURGE utility can also initialize the VSAM batch files and log files (that is, VBQnn and VLFn) at times other than installation. The values in the preceding procedure apply only to the initialization performed at installation. See the *Connect:Enterprise for z/OS User's Guide* for the values to use when running the PURGE utility at times other than installation.

Start the VSAM file server *before* you run the PURGE utility.

Before running PURGE for the first time, verify that:

- ◆ All files are deleted and defined with IDCAMS.
- ◆ All files have an initial record with a key of X'00's copied into them using the REPRO command.

---

**Caution:** Never run the PURGE utility with INIT=ALL while Connect:Enterprise is online.

---

When PURGE INIT=ALL is executed, the VCF is initialized with the same number of records as defined in the MAXBNO parameter. A high MAXBNO value makes a PURGE run longer. The exact run length is affected by the Connect:Enterprise performance groups assigned to the PURGE jobs and VSAM file server.

### PURGE Utility Sample JCL

The following sample JCL, which you will modify in Step 2 of the following procedure, executes the PURGE utility:

```
//PURGE      JOB      .... AS REQUIRED BY YOUR SITE
//STOUTL     EXEC     PGM=STOUTL, PARM='SRV1', REGION=4000K
//STEPLIB    DD      DISP=SHR, DSN=ENTPRS.LOAD
//BTSNAP     DD      SYSOUT=*
//REPORTS    DD      SYSOUT=*
//REPORTS2   DD      SYSOUT=*
//SYSPRINT   DD      SYSOUT=*
//SYSTEM     DD      SYSOUT=*
//SYSIN      DD      DATA, DLM=ZZ

  purge
  init=all
  MAXBNO=50000
  MBXNAME=PRODSNA1
  VPF='entprs.vpf'
  VCF='entprs.vcf'
  VBQ01='entprs.vbq01'
  VBQ02='entprs.vbq02'
  VBQ03='entprs.vbq03'
  VBQ04='entprs.vbq04'
  VBQ05='entprs.vbq05'
  VBQ06='entprs.vbq06'
  VLF1='entprs.vlf1'
  vbqalloc=6
  vlfalloc=1

ZZ
```

To initialize VSAM batch files:

1. Edit the XPURGE member of the ENTPRS.EXAMPLE library.
2. Change the parameters listed in the following table:

Parameter	Description
ENTPRS.LOAD	Replace with your load library name.
PARM='xxxx'	Replace xxxx with the 4-character name of your VSAM file server.

Parameter	Description
MAXBNO	Set to the maximum number of batch numbers you want the Connect:Enterprise system to contain. This value must be 2 less than the RECORDS value of the VSAM Control File (VCF). The acceptable value range is 1 to 9,999,999. The default is 9,999.  <b>Note:</b> A VCF control record is written for each batch number in the Connect:Enterprise system. Allocate enough records in the VPF and VCF data sets to account for this. (The size of each VCF record is 768 bytes while the size of each VPF record is 136 bytes.)
INIT	Set to ALL to initialize all VSAM files.
MBXNAME	Set to an 8-character name. (Defaults to MAILBOX)  This name is used by the Security interface when making security checks. It is also used by the application agents when dynamically defining consoles to issue console commands.
VBQALLOC	Set to the number of VBQ files that online Connect:Enterprise allocates when it is brought up for the first time.  The maximum number allowed is 20. The number specified cannot exceed the number of defined VBQs. The default is 1.
VLFALLOC	Set to the number of VLFs that online Connect:Enterprise allocates when it is brought up for the first time.  The maximum number allowed is 8. The number specified cannot exceed the number of defined VLFs. The default is 1.
VPF	Set to the full data set name of the VPF.  You cannot change the names of any VSAM files after the PURGE utility has run.
VCF	Set to the full data set name of the VCF.
VBQ01–VBQ20	Set to the full data set name of the VBQ file from VBQ01 to VBQ20.
VLF1–VLF8	Set to the name of the VLF file from VLF1 to VLF8.

---

**Note:** VCF, VLF<sub>n</sub>, VBQ01 and VPF are required when INIT=ALL is specified. Specify any additional VBQ<sub>nn</sub> and VLF<sub>n</sub> parameters in numerical order.

---

### 3. Submit the JCL.

When the PURGE job executes, it creates file control records in the VPF, initializes the VCF, and creates batch control records in the VCF. The following table lists the VSAM batch file characteristics after the PURGE utility runs:

File	Characteristics
VPF	Contains an initial record with a key of all hexadecimal zeroes and 24 file control records, one for every possible VSAM file that could be defined to Connect:Enterprise.

File	Characteristics
VCF	Contains an initial record with a key of all hexadecimal zeroes, a master control record, and the MAXBNO value of previously allocated slots for batch control records.
VBQ	Contains an initial record with a key of all hexadecimal zeroes and a record with the file ID and data set name.
VLF	Contains an initial record with a key of all hexadecimal zeroes, a record with the file ID, and data set name.

The PURGE utility also creates a REPORTS output file detailing the PURGE operation. A message is printed for each file initialized.

### Using a SYSIN File for PURGE Parameters

You can create a SYSIN file to specify the PURGE program with the parameters for the PURGE utility. See the *Connect:Enterprise for z/OS User's Guide* for information about PURGE.

---

## Creating a VCF Alternate Index

To improve the execution of the offline utilities, you can create a VCF alternate index after you have initialized and defined the VSAM batch files. The offline utilities, which perform tasks such as adding and extracting batches from the VBQs, are discussed in the *Connect:Enterprise for z/OS User's Guide* and comprise a major component in Connect:Enterprise. The example members, XPURGEX1 and VSAMAIX1, contain sample scripts and detailed instructions on how to implement the VCF alternate index. Follow the instructions provided in those example members customizing the JCL for your system.

---

# Allocating Additional Data Sets and Implementing User Exits

This chapter describes the following optional installation procedures:

- ◆ Allocating additional data sets
- ◆ Implementing user exits

---

## Allocating Additional Data Sets

In addition to the ODF and the VSAM batch files, the following optional data sets can be allocated during configuration or at a later time:

- ◆ Connect:Enterprise snapshot data set
- ◆ Connect:Enterprise environment variables data set
- ◆ Connect:Enterprise dump data set
- ◆ Connect:Enterprise BTSNAP dump data set
- ◆ Connect:Enterprise JES2 internal reader
- ◆ Connect:Enterprise Rules data set
- ◆ Connect:Enterprise Rules JCL data set
- ◆ Connect:Enterprise Rules Trace data set
- ◆ Connect:Enterprise Translate Table data set

These files are used by the Connect:Enterprise started task. The JCL for the Connect:Enterprise started task is member name ENTPRS, located in the ENTPRS.EXAMPLE library.

### Allocating the Snapshot Data Set

Snapshot dumps are written to this data set if specified by the Connect:Enterprise execution JCL.

Use the following procedure to allocate and catalog a snapshot data set:

1. Edit the ALLOCSNP member in the ENTPRS.EXAMPLE library.

2. Change the following parameters:

Parameter	Description
ENTPRS.SNAPOUT	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do <i>not</i> change the DCB information.

3. Submit the JCL.

### Allocating the Connect:Enterprise Environment Variables Data Set

This data set contains environment variables used by the UNIX or Language Environment. Using the following example, specify variables such as time zone offset and LOCALE support for the SSL environment:

```
//ENVIRON DD DISP=SHR,DSN=USERID.DATASET.NAME(TZ)
```

Sample contents of the member from the example:

```
TZ=CST6CDT
LC_ALL=EN_US.IBM-O37
```

For more information about available LOCALES and environment variables, refer to the IBM documentation z/OS C/C++ Programming Guide, manual number SC09-2362-04 (CBCPG010).

### Allocating the Dump Data Set

Dumps are written to a dump data set if specified by the Connect:Enterprise JCL. Because the Connect:Enterprise JCL can also direct dumps to SYSOUT, allocating this data set is optional.

Use the following procedure to allocate and catalog a standard system dump data set for job ABENDS:

1. Edit the ALLOCDMP member in the ENTPRS.EXAMPLE library:
2. Change the following parameters:

Parameter	Description
ENTPRS.DUMP	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set
DCB information	Do <i>not</i> change the DCB information.



3. Submit the JCL.

## Allocating the BTSNAP Data Set

BTSNAP ESTAE dumps are written to a different data set.

Use the following procedure to allocate and catalog a BTSNAP ESTAE data set:

1. Access the ALLOCBTS member in the ENTPRS.EXAMPLE library.
2. Change the following parameters:

Parameter	Description
ENTPRS.BTSNAP	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do <i>not</i> change the DCB information.

3. Submit the JCL.

## JES2 Internal Reader

The Connect:Enterprise INTRDR file is used by user exits when batch jobs are submitted. The following DD card is included in the online Connect:Enterprise JCL:

```
//INTRDR DD SYSOUT=(*,INTRDR)
```

The Connect:Enterprise JESRDR file is used by Connect:Enterprise to submit JCL from application agents or the CICS/ISPF interfaces. The following DD card is included in the online Connect:Enterprise JCL:

```
//JESRDR DD SYSOUT=(*,INTRDR)
```

## Allocating the Connect:Enterprise Rules Data Set

The Connect:Enterprise Rules data set file is used by application agents during STARTUP and REFRESH. It contains the rules control statements used by each application agent.

Use the following procedure to allocate and catalog a Connect:Enterprise Rules data set:

1. Edit the ALLOCRU1 member in the ENTPRS.EXAMPLE library:
2. Change the following parameters:

Parameter	Description
ENTPRS.RULES	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do not change the DCB information.

3. Submit the JCL.

### Allocating the Connect:Enterprise Rules JCL Data Set

An application agent uses the Connect:Enterprise Rules JCL data set file for submitting jobs. The data set contains the job streams referenced in the application agent rules.

Use the following procedure to allocate and catalog a Connect:Enterprise Rules JCL data set.

1. Edit the ALLOCRU2 member in the ENTPRS.EXAMPLE library:
2. Change the following parameters:

Parameter	Description
ENTPRS.RULES.CNTL	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do not change the DCB information.

3. Submit the JCL.

### Allocating the Connect:Enterprise Rules Trace Data Set

This procedure allocates and catalogs a Connect:Enterprise Rules Trace data set for application agent tracing.

Use the following procedure to allocate and catalog a Connect:Enterprise Rules JCL data set:

1. Edit the ALLOCRTR member in the ENTPRS.EXAMPLE library:
2. Change the following parameters:

Parameter	Description
ENTPRS.RULES.TRACE	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do not change the DCB information.

3. Submit the JCL.

### Allocating the Connect:Enterprise Translate Table Data Set

This procedure allocates and catalogs a Connect:Enterprise Translate Table data set for FTP data translation.

Use the following procedure to allocate and catalog a Connect:Enterprise Rules JCL data set:

1. Edit the ALLOCTRN member in the ENTPRS.EXAMPLE library:
2. Change the following parameters:

Parameter	Description
ENTPRS.TRANSLAT.TABLES	Replace the data set name with the name of your choice.
XXXX	Replace with the DASD unit number of the data set.
NNNNNN	Replace with the volume serial number of the data set.
DCB information	Do not change the DCB information.

3. Submit the JCL.

---

## Implementing User Exits

Optional user exits are available for you to customize Connect:Enterprise. User exits are called at appropriate times during Connect:Enterprise processing and can set an action code before returning to alter the standard Connect:Enterprise processing. Connect:Enterprise provides only the links to the user exits. You must define, code, assemble, link, and test your own exits.

---

**Note:** User exit programs are optional. The system default is no exits.

---

Connect:Enterprise calls user exits with standard CALL linkage. As a result, Connect:Enterprise is not in control when the exits are in control. If your exits ABEND or go into a loop, the entire Connect:Enterprise system is affected, so define and test your programs carefully.

To aid in testing and debugging the user exits, invoke an Exit TRACE feature to snap the information passed to and from the exits before and after each CALL.

For more information on providing optional user exits, refer to the *Connect:Enterprise for z/OS Application Agents and User Exits Guide*.

---

# Creating the User Assembly (BSC)

This chapter applies only to sites that use BSC data transmissions. BSC transmissions require that you create a user assembly to identify characteristics of the host site. This chapter describes the following tasks to create a user assembly:

- ◆ Analyzing your BTAM network and identifying which TP lines Connect:Enterprise uses
- ◆ Defining your BTAM network to Connect:Enterprise using macros supplied with Connect:Enterprise
- ◆ Assembling and linking the macros

---

## Analyzing Your BTAM Network

Analyze your data transmission requirements to ensure that the necessary telecommunications lines are installed. Connect:Enterprise can use any point-to-point BSC-switched or BSC-leased telecommunications lines defined to the BTAM network of your system.

When Connect:Enterprise is running, it has exclusive use of the telecommunications lines defined for its use. However, Connect:Enterprise does not have the exclusive use of the remote sites or terminals.

---

## Defining Your BTAM Network to Connect:Enterprise

Two macros supplied with Connect:Enterprise enable you to create the user assembly:

- ◆ M\$LINEX
- ◆ M\$ENDX

These macros are assembled to create the user assembly module that is dynamically loaded during online Connect:Enterprise execution. The following sections describe these macros in more detail.

---

**Note:** If you are currently running a BSC configuration using the M\$LINE and M\$END macros, your user assembly will still work. However you should convert to the M\$LINEX and M\$ENDX macros, which provide for more control over stopping and starting individual BSC lines using the \$\$\$STOP and \$\$\$START console commands.

---

## The M\$LINEX Macro

A M\$LINEX macro must be coded for each BTAM line used by Connect:Enterprise. The M\$LINEX macro uses the following options.

Macro	Options
M\$LINEX	BCHSEP= <u>NO</u>  OPT1 OPT2 OPT3
	BUFSIZ=nnn
	CLOSE=nnn
	DIALOUT= <u>MANUAL</u>  AUTO
	ENDCON= <u>OPTION1</u>  OPTION2
	ID=xxxxxxx
	IDVER= <u>NO</u>  HOST REMOTE BOTH
	MODEM=SDRV SDUD
	RECSEP= <u>1E</u>  1F
	TYPE=BSCSW BSCNS

The following table describes the M\$LINEX options.

Options	Description
BCHSEP= <u>NO</u>  OPT1 OPT2  OPT3	<p>Specifies which method Connect:Enterprise uses to separate batches sent to remote sites on the line when multiple batches are sent in a single connection.</p> <ul style="list-style-type: none"> <li>◆ NO—Batches are not separated. If multiple batches are sent in a single connection, they are concatenated and sent as a single batch. If you use this option, remote sites using the line must be able to process concatenated data batches.</li> <li>◆ OPT1—A common RJE method of separating batches is used. At the end of each batch, Connect:Enterprise sends an EOT (X'37') to the remote, reads a response from the remote, and then sends ENQ (X'2D') to request use of the line. Do not use this option if the remote site using this line cannot properly respond to this protocol.</li> <li>◆ OPT2—Connect:Enterprise separates batches using an ETX (X'03'). Do not use this option unless the remote can properly respond to this protocol.</li> <li>◆ OPT3—Batches are not separated. If multiple batches are sent in a single connection, they are concatenated and sent as a single batch. However, the individual batches are not flagged as transmitted until the entire transmission is successfully completed. If you use this option, remote sites using this line must be able to process concatenated data batches.</li> </ul> <p>The default is NO.</p> <p>This parameter is not required for JES communications. If you send multiple batches to JES, concatenate them and send them as a single transmission, regardless of the BCHSEP option chosen for the line.</p>
BUFSIZ=nnnn	<p>Specifies the size of the transmission buffer for the line. Any value between 512 and 4096 is valid. The default is 512.</p>
CLOSE=nnn	<p>Specifies the number of consecutive hard I/O errors that cause Connect:Enterprise to close the line and make it unavailable for use. Any number of errors between 0 and 255 is valid. Do not use a value of 1. A value of 0 forces Connect:Enterprise to never close the line. The only exception is that the line closes if BTAM rejects an I/O because of a serious error, such as an incorrect definition of the line. In this case, console message CMB083 indicates the BTAM return code.</p> <p>If this value is 0 or greater than 16, Connect:Enterprise issues a warning message on the system console when 16 consecutive hard I/O errors occur.</p> <p>The default is 3.</p>

Options	Description
DIALOUT= <u>MANUAL</u>   AUTO	<p>Specifies the host dial-out characteristics of the line. This operand is only required if you want to dial a remote site from the host site, and is only valid for switched lines. To use this feature, the remote site must be able to answer a call from the host.</p> <ul style="list-style-type: none"> <li>♦ MANUAL—The DIALOUT connection from the host is established by manually dialing the remote site.</li> <li>♦ AUTO—The DIALOUT connection from the host is established by the AUTO DIAL feature installed for the line. Using DIALOUT=AUTO requires a host's Transmission Control Unit equipped with the AUTO DIAL feature and an appropriate modem.</li> </ul> <p>The default is MANUAL.</p>
ENDCON= <u>OPTION1</u>   OPTION2	<p>Specifies the method used by Connect:Enterprise to end a switched line connection after a batch data transmission completes.</p> <ul style="list-style-type: none"> <li>♦ OPTION1—Sends a Disconnect (DLE/EOT) at the end of the connection.</li> <li>♦ OPTION2—Sends an EOT, followed by a DLE/EOT at the end of the connection.</li> </ul> <p>The default is OPTION1.</p>
ID=xxxxxxx	<p>Specifies the 1–8 character name used by Connect:Enterprise to identify each telecommunications line.</p> <p>This line ID identifies telecommunications lines in console messages when Connect:Enterprise is online. It is the Mailbox ID for those remote terminals that do not transmit their Mailbox ID as part of the data collection Process. The line ID must match the DD name in the Connect:Enterprise startup JCL identifying the UNIT address. For example, if ID=LINE01 is specified, the Connect:Enterprise JCL must contain the following statement:</p> <pre>//LINE01 DD UNIT=xxx</pre> <p>(where xxx is the unit address)</p> <p>This is a required parameter.</p>
IDVER= <u>NO</u>   <u>HOST</u>   <u>REMOTE</u>   <u>BOTH</u>	<p>Specifies the use of BTAM ID verification for added security on switched lines only. Verification enables exchange and verification of remote site IDs before a switched line connection is allowed.</p> <p>To use this feature, your remote sites must be capable of exchanging IDs as required by BTAM.</p> <p>NO—BTAM ID verification is not used on this line.</p> <p>HOST—Causes the host site (Connect:Enterprise) to send its ID to the remote site for verification.</p> <p>REMOTE—Requests remote sites to send their IDs to the host site for verification.</p> <p>BOTH—Causes both the host and the remote sites to send their IDs for verification.</p> <p>The default is NO.</p>



Options	Description
MODEM=SDRV SDUD	<p>The type of synchronous auto-dial language modem that is used on this switched line. This line is only available for dialing the remote site. Remote sites cannot dial in unless the SADL modem is reconfigured (vendor specification). This is only valid for SADL modems.</p> <p>This option requires that the LINES= parameter be specified in the *CONNECT section for Auto Connect sessions.</p> <ul style="list-style-type: none"> <li>SDRV—Specifies a Racal-Vadic SADL or UDS 2860 modem and protocol. If you use an UDS 2860 modem, you must specify MODEM=SDRV. This modem does not follow the standard UDS SADL modem protocol.</li> <li>SDUD—Specifies a UDS SADL modem and protocol.</li> </ul> <p>A SADL modem enables Connect:Enterprise to dial a remote site without using a standard 801 Auto Call Unit, meaning that a line on the front end processor is freed. Connect:Enterprise supports the Racal-Vadic Synchronous Auto Dial language 4850PA, UDS 208B/D, and UDS 2860.</p>
RECSEP=1E 1F	<p>Specifies the BSC record separator that designates blocked output during the Auto Connect session. The default is 1E.</p> <ul style="list-style-type: none"> <li>1E—Specifies the standard record separator for 3780-type devices.</li> <li>1F—Specified for 2780-type devices or other remote sites that require its use.</li> </ul>
TYPE=BSCSW BSCNS	<p>Specifies the TP line type. This is a required parameter.</p> <ul style="list-style-type: none"> <li>BSCSW—Used for switched (dial-up) lines.</li> <li>BSCNS—Used for point-to-point (leased) lines.</li> </ul>

## M\$LINEX Examples

The following M\$LINEX macros examples show two different TP line configurations:

- ◆ The following example defines a line named LINE023 for a BSC switched line with the auto dial feature:

```
M$LINEX ID=LINE023,TYPE=BSCSW,DIALOUT=AUTO
```

The corresponding Connect:Enterprise JCL DD statement is:

```
//LINE023 DD UNIT=xxx
```

- ◆ The following example defines a line named HOUSTON for a BSC leased line with remote terminals that use 1F as the IRS. This line can handle transmissions of data blocks with a maximum of 3,000 characters.

```
M$LINEX ID=HOUSTON,TYPE=BSCNS,RECSEP=1F,BUFSIZ=3000
```

The corresponding Connect:Enterprise JCL DD statement is:

```
//HOUSTON DD UNIT=xxx
```

### Document M\$LINEX Macros

The following worksheet is provided for documenting M\$LINEX macros. Documenting M\$LINEX macros now provides help when troubleshooting later.

Make copies of the worksheet if you want to list the lines for different network configurations separately. Use the Comments field to briefly describe the entry, such as the destination of the line and the unit address assigned to the line in your execution JCL.

**M\$LINEX Macros Worksheet**

Macro	Code
LOAD MODULE	Name for this line configuration: UA= _____
LINE ID	_____
TYPE	_____
RECSEP	_____
DIALOUT	_____
BCHSEP	_____
BUFSIZ	_____
CLOSE	_____
ENDCON	_____
MODEM	_____
IDVER	_____
Comments:	_____
	_____
	_____
	_____

### The M\$ENDX Macro

The M\$ENDX macro must be the last macro in the user assembly. The M\$ENDX macro is coded once and has no operands, as shown in the following:

```
M$ENDX
```

## Assembling the M\$LINEX Macro Operands

The M\$LINEX macro operands you identify for each TP line and the M\$ENDX macro are assembled to create the user assembly module. This module is dynamically loaded during online Connect:Enterprise execution.

Use the following procedure to assemble the M\$LINEX macro operands:

1. Access the USERASM member in the ENTPRS.EXAMPLE library.
2. Change the following parameters:

Parameter	Description
ENTPRS.SOURCE	Replace with your source library name.
M\$LINEX macro parameters	Replace with the operands you identified earlier.
ENTPRS.LOAD	Replace with the name of your Connect:Enterprise load library.
ANYNAME	Replace with the name of your choice. Note the name on the M\$LINEX Macros Worksheet for future use.
Comments	Replace with any text that describes each line as documented on the worksheet.

3. Submit the JCL.

### Example of Assembled LINE Macro Operand

The following example shows the assembler input for a network with three BSC switched lines (LINE01, LINE02, LINE03) into Connect:Enterprise. LINE03 is equipped with the auto dial feature. BRANCH01 and BRANCH02 are two BSC leased lines running to branch office one and branch office two, and allows a 2,000-character maximum transmission buffer.

```
M$LINEX ID=LINE01,TYPE=BSCSW
M$LINEX ID=LINE02,TYPE=BSCSW
M$LINEX ID=LINE03,TYPE=BSCSW,DIALOUT=AUTO
M$LINEX ID=BRANCH01,TYPE=BSCNS,BUFSIZ=2000
M$LINEX ID=BRANCH02,TYPE=BSCNS,BUFSIZ=2000
M$ENDX
END
```

The following shows the corresponding Connect:Enterprise JCL DD statements for the example BSC switched lines:

```
//LINE01 DD UNIT=xxx
//LINE02 DD UNIT=xxx
//LINE03 DD UNIT=xxx
//BRANCH01 DD UNIT=xxx
//BRANCH02 DD UNIT=xxx
```

You can create more than one user assembly to operate Connect:Enterprise in different configurations at different times. For example, you can build using only one TP line, or you may require a different configuration of lines assigned to Connect:Enterprise during the day and night. Each user assembly must have a unique load module name. The load module name of the proper user assembly is later supplied to the online Connect:Enterprise, and loaded during Connect:Enterprise initialization.

---

# Installing the ISPF Interface

The ISPF interface is a standard ISPF application that you can install and manage within your z/OS environment. Installing the ISPF interface requires no specialized knowledge of Connect:Enterprise.

Before you begin the installation, review the *Connect:Enterprise for z/OS Release Notes* to ensure that your system meets all software, hardware, and space requirements.

---

## Unloading the Distribution Tape

The Connect:Enterprise distribution tape, which uses standard labels, contains the Connect:Enterprise ISPF interface files listed in the following table.

DSN	Label #	RECFM	LRECL	BLKSIZE	Dir Blocks	Format
CEISPF.ISPLLIB (Load library)	7	U	0	6144	200	IEBCOPY
CEISPF.ISPPLIB (Panel library)	8	FB	80	6320	510	IEBCOPY
CEISPF.ISPSLIB (Skeleton library)	9	FB	80	6320	20	IEBCOPY
CEISPF.ISPMLIB (Message library)	10	FB	80	6320	30	IEBCOPY
CEISPF.ISPTLIB (Table library)	11	FB	80	6320	5	IEBCOPY
CEISPF.VSAM (Administration file data records)	13	VSAM	2900-8192	N/A	N/A	IDCAMS

The ISPUNLOD example member in the ENTPRS.EXAMPLE library generates the ISPF output files listed in the following table. The Connect:Enterprise documentation refers to the files using the names listed in the table; however, you can assign different names and specify them in the ISPUNLOD example member.

DSN	Content	3390 Tracks
ENTPRS. ISPF.ISPLLIB	Main control program, LU6.2 subtask program, and all options program	200
ENTPRS. ISPF.ISPPLIB	Dialog and Help screens	370
ENTPRS. ISPF.ISPSLIB	JCL skeletons	15
ENTPRS. ISPF.ISPMLIB	Dialog messages	10
ENTPRS. ISPF.ISPTLIB	Input command table	2
ENTPRS. ISPF.VSAM	Administrative file data records	110

To unload the ISPF interface files from the distribution tape:

1. Modify the example member ISPUNLOD in the ENTPRS.EXAMPLE library for your system.
2. Supply a valid job card.
3. Replace XXXX in the JCL with the valid unit number where you intend to unload the installation data sets.
4. Submit the JCL.

For a complete list of the members of the ENTPRS.EXAMPLE library that are related to the ISPF interface and their function, see *ISPF Interface Files* on page 35.

---

## Defining and Initializing the VSAM Administration File

This section contains information for updating an existing VSAM administration file and creating a new VSAM administration file. If this is a new installation, refer to *Updating the TSO Logon Procedure* on page 63.

### Creating the VSAM Administration File

If this is a new installation or you want to replace your existing VSAM administration file, you must allocate and load a new VSAM administration file.

To create a new VSAM administration file:

1. Modify the ISPVSMDF member in the ENTPRS.EXAMPLE library to replace all data set names with names of your choice.

2. Supply a valid job card.
3. Replace ? in the selected JCL with an appropriate value for your system.
4. If you intend to add many model records, increase the RECORDS value in the selected JCL.
5. Define the remaining VSAM initialization parameters to meet the VSAM standards and requirements at your company.

---

**Note:** Do not change the definitions for the file attributes (SHAREOPTIONS, CISZ, KEYS, and RECSZ) in the installation JCL. If you modify any of these parameters, your system may malfunction.

---

6. Submit ISPVSMDF to allocate the VSAM administration file.
7. Continue with the steps in *Updating the VSAM Administration File* on page 63 to load it.

## Updating the VSAM Administration File

If you have installed a version of the Connect:Enterprise ISPF interface, you can update and use your existing VSAM administration file. Using your existing VSAM administration file means that you do not have to redefine the connection definitions, VTAM APPL prefixes, or model records. Only the message library text records in the VSAM administration file are updated. This also eliminates the need to customize the ISPF interface.

To update the VSAM administration file:

1. Modify the ISPVSMRP member in the ENTPRS.EXAMPLE library to replace the ISPADMFL DD data set with a data set name of your choice.
2. Supply a valid job card.
3. Submit the JCL.

---

## Updating the TSO Logon Procedure

To update the TSO logon procedure, perform the following tasks:

- ◆ Allocate the ISPF interface libraries
- ◆ Allocate the diagnostic libraries

### Allocating the ISPF Interface Libraries

To allocate the ISPF interface libraries, add or concatenate the following DD statements to the TSO LOGON procedure:

```
//ISPLLIB DD DSN=ENTPRS . ISPF . ISPLLIB ,DISP=SHR
//ISPSLIB DD DSN=ENTPRS . ISPF . ISPSLIB ,DISP=SHR
//ISPPLIB DD DSN=ENTPRS . ISPF . ISPPLIB ,DISP=SHR
//ISPMLIB DD DSN=ENTPRS . ISPF . ISPMLIB ,DISP=SHR
//ISPTLIB DD DSN=ENTPRS . ISPF . ISPTLIB ,DISP=SHR
//ADMINFIL DD DSN=ENTPRS . ISPF . VSAM ,DISP=SHR
```

## Allocating the Diagnostic Libraries

The ISPF interface includes a trace facility that provides diagnostic capabilities. To allocate the diagnostic libraries, perform the following steps:

1. Allocate two sequential data sets to your ISPF session.
2. Use the following JCL, in ENTPRS.EXAMPLE (ISPDEFDG), to allocate the TRACE files:

```
//ALLOCSNP EXEC PGM=IEFBR14
//SNAPOUT DD DSN=ENTPRS.ISPF.SNAPOUT,DISP=(NEW,CATLG),
//          UNIT=SYSDA
//          SPACE=(TRK,(30,15)),
//          DCB=(RECFM=VBA,LRECL=125,BLKSIZE=1632,DSORG=PS)
//BTSNAP DD DSN=ENTPRS.ISPF.BTSNAP,DISP=(NEW,CATLG),
//          UNIT=SYSDA
//          SPACE=(TRK,(30,15)),
//          DCB=(RECFM=VBA,LRECL=125,BLKSIZE=1632,DSORG=PS)
//*
```

3. Include the following DD statements in your TSO LOGON procedure:

```
//SNAPOUT DD DSN=ENTPRS.ISPF.SNAPOUT,DISP=SHR
//BTSNAP DD DSN=ENTPRS.ISPF.BTSNAP,DISP=SHR
```

4. To activate the tracing, use administration function ISPF interface system traces, option 10.6 on the Connect:Enterprise Interface Primary Menu.

---

## Creating the ISPF Interface Call

You can create the call to execute the ISPF interface using the following methods:

- ◆ Adding the ISPF interface to the ISPF primary menu
- ◆ Writing REXX (or CLIST) to call the ISPF interface using LIBDEFs

### Adding the ISPF Interface to the ISPF Primary Menu

To add the ISPF interface to the ISPF Primary Menu:

---

**Note:** Member ISR@PRIM in the example library contains a sample ISPF primary menu.

---

1. Add the following card to the )BODY Section of your ISPF primary selection menu:

```
M +Mailbox - Connect:Enterprise Data Communications System.
```



2. Add the following card to the )PROC Section of your ISPF primary selection menu (if you are not planning on using LIBDEFs):

```
M, 'PGM(MZMCP001) NEWAPPL(MZI)'
```

## Writing REXX (or CLIST) to Call the ISPF Interface Using LIBDEFs

You can use LIBDEFs to allocate the ISPF interface. The following example shows a sample REXX that uses LIBDEFs to allocate the ISPF interface files and then executes the interface:

```
/* REXX */
/* SAMPLE Connect:Enterprise LIBDEF ALLOCATION */
address tso
X=MSG('OFF')
"ALLOC DDNAME(ADMINFIL) DSNAME('YOUR.ENTPRS.ADMINFIL') "
"ALLOC DDNAME(BTSNAP) DSNAME('YOUR.ENTPRS.BTSNAP') "
"ALLOC DDNAME(SNAPOUT) DSNAME('YOUR.ENTPRS.SNAPOUT') "
address ispeexec
"LIBDEF ISPLLIB DATASET ID('YOUR.ENTPRS.ISPLLIB') "
"LIBDEF ISPLMLIB DATASET ID('YOUR.ENTPRS.ISPLMLIB') "
"LIBDEF ISPLPLIB DATASET ID('YOUR.ENTPRS.ISPLPLIB') "
"LIBDEF ISPLTLIB DATASET ID('YOUR.ENTPRS.ISPLTLIB') "
"LIBDEF ISPLSLIB DATASET ID('YOUR.ENTPRS.ISPLSLIB') "
SELECT CMD(MZMCP001) NEWAPPL(MZI) PASSLIB"
"LIBDEF ISPLLIB"
"LIBDEF ISPLMLIB"
"LIBDEF ISPLPLIB"
"LIBDEF ISPLTLIB"
"LIBDEF ISPLSLIB"
address tso
"FREE DDNAME(ADMINFIL) "
"FREE DDNAME(BTSNAP) "
"FREE DDNAME(SNAPOUT) "
/* END SAMPLE LIBDEF REXX */
```

---

## Activating the ISPF Interface

Complete the following tasks to activate the Connect:Enterprise ISPF interface:

- ◆ Define ISPF interface VTAM APPLs
- ◆ Copy previous release model records
- ◆ Establish security for the VSAM administration file
- ◆ Specify function-level security

## Defining ISPF Interface VTAM APPLs

Create one or more VTAM APPL definitions to allow the ISPF interface to logon to Connect:Enterprise using the LU6.2 protocol. The names (ACBNAMEs) for each VTAM APPL definition are composed of:

- ◆ A prefix that contains:
  - ◆ At least one character
  - ◆ A maximum of six characters
  - ◆ A name of your choice for each group

---

**Note:** You can define several groups of VTAM APPLs, but you must use the same prefix for every individual VTAM APPL within that group.

---

- ◆ A numeric suffix starting with 00 that is increased sequentially by one (00, 01, 02, . . .)

## VTAM APPL Parameters

The parameters follow the ACBNAME. All parameters in the VTAM APPL definition must be defined for every VTAM APPL definition. The following is an example of a valid VTAM APPL definition that the ISPF interface can use:

```

72
ENT00 APPL ACBNAME=ENT00,           X
      AUTH=(TSO,ACQ),              X
      APPC=YES,                     X
      PARSESS=YES,                  X
      VPACING=7,                    X
      AUTOSES=2,                    X
      DLOGMOD=TESTLU62,             X
      DMINWNL=1,                     X
      DMINWNR=1,                     X
      DRESPL=ALLOW,                 X
      DDRAINL=ALLOW,                X
      DSESLIM=2,                     X
      MODETAB=MODEAPPC

```

## Defining a Group of VTAM APPLs

The number of APPL definitions is determined by the number of concurrent users that are using the ISPF interface. No one-to-one correlation between the total number of ISPF users defined to your system and the number of VTAM APPLs required exists.

When a user invokes the ISPF interface, the interface selects the first available unused VTAM APPL. Therefore, an ISPF user is not always using the same VTAM APPL.

You can define VTAM APPLs with several different prefixes (by function, department, and so on). However, each ACBNAME group must follow the rule concerning the last two digits (ENT00, ENT01, ENT02, and so on). For example, the following list of VTAM APPLs is valid if defined as a group:

---

**Note:** The ACBNAME value defines the ISPF connection definitions. This is done during the initial customization of the ISPF interface and uses option 10.3, ISPF interface Connection Definitions.

---

ENT00 APPL ACBNAME=ENT00,	72
AUTH= (TSO, ACQ) ,	X
APPC=YES ,	X
PARSESS=YES ,	X
VPACING=7 ,	X
AUTOSES=2 ,	X
DLOGMOD=TESTLU62 ,	X
DMINWNL=1 ,	X
DMINWNR=1 ,	X
DRESPL=ALLOW ,	X
DDRAINL=ALLOW ,	X
DSESLIM=2 ,	X
MODETAB=MODEAPPC	
ENT01 APPL ACBNAME=ENT01,	X
AUTH= (TSO, ACQ) ,	X
APPC=YES ,	X
PARSESS=YES ,	X
VPACING=7 ,	X
AUTOSES=2 ,	X
DLOGMOD=TESTLU62 ,	X
DMINWNL=1 ,	X
DMINWNR=1 ,	X
DRESPL=ALLOW ,	X
DDRAINL=ALLOW ,	X
DSESLIM=2 ,	X
MODETAB=MODEAPPC	
ENT02 APPL ACBNAME=ENT02,	X
AUTH= (TSO, ACQ) ,	X
APPC=YES ,	X
PARSESS=YES ,	X
VPACING=7 ,	X
AUTOSES=2 ,	X
DLOGMOD=TESTLU62 ,	X
DMINWNL=1 ,	X
DMINWNR=1 ,	X
DRESPL=ALLOW ,	X
DDRAINL=ALLOW ,	X
DSESLIM=2 ,	X
MODETAB=MODEAPPC	
.	
.	
.	
ENT78 APPL ACBNAME=ENT78,	X
.	
.	
.	

## Establishing Security for the VSAM Administration File

All ISPF interface users must have at least READ access authority to the VSAM administration file. The following functions require WRITE access authority to the VSAM administration file:

- ◆ Connect:Enterprise connection definitions
- ◆ ISPF interface definitions
- ◆ CONNECT model maintenance
- ◆ Batch utility model maintenance

To restrict the use of these functions, create a security rule that permits appropriate WRITE access to the VSAM administration file.

---

**Note:** At least one person must have WRITE authority to the VSAM administration file to create the required Connect:Enterprise connection definitions and ISPF interface definitions.

---

## Specifying Function-Level Security

You can restrict users to certain functions within the ISPF interface, or limit functions to certain Connect:Enterprise systems. Two security exits implement this level of control within the ISPF interface.

- ◆ Use the ISPF function initiation security exit MZMCPFIX to restrict individual or groups of interface functions to certain users.
- ◆ Use the ISPF function request security exit MZAPCFRX to restrict communications to certain Connect:Enterprise systems and reject communications requests made to Connect:Enterprise systems.

Refer to the *Connect:Enterprise for z/OS Application Agents and User Exits Guide* for more information on these exits. Additionally, several exits within the Connect:Enterprise system further control user functions.

---

## Customizing the ISPF Interface

If you are using the ISPF interface for the first time, complete the following actions when prompted:

- ◆ Define connection definitions
- ◆ Identify VTAM APPL prefixes to the ISPF interface

If you are using an updated version of the Connect:Enterprise ISPF interface, and did not define a new VSAM administration file, you do not have to perform this procedure.

### Define Connection Definitions

You must define several attributes associated with a Connect:Enterprise system before the ISPF interface can communicate with it. Use the Connect:Enterprise Connection Definitions screen, option 10.2 on the Connect:Enterprise Interface Primary Menu, to define:

- ◆ A Mailbox name for logging on to the system

◆ The VTAM mode name and VTAM Netname that this Connect:Enterprise system is using  
Define a connection definition for each Connect:Enterprise system in your network. You can add, change, or delete entries at a later time, if needed.

The first time you invoke the ISPF interface, the software automatically invokes the connection definitions function. You need WRITE access to the administration file to update the connection definitions.

## Identify VTAM APPL Prefixes to the ISPF Interface

After you have defined the VTAM APPL definitions that are used by the ISPF interface, you must identify them to the ISPF interface. Use the ISPF Interface Connection Definition screen, option 10.3 on the Connect:Enterprise Interface Primary Menu, to accomplish this.

Use this screen to list the defined VTAM APPL prefixes. They are listed in the order the APPL IDs are used.

The first time you invoke the ISPF interface, the software automatically invokes this function. You need WRITE access to the administration file to update the VTAM APPL group definitions.

## Automated Connect:Enterprise Logon

Each time TSO users invoke the ISPF interface, they must identify the target Connect:Enterprise system they are using. This is done by using option 50, Security, and is required before any functions can be processed. This identification can be automated by setting several default values using the Defining Global Defaults (option 10.1) function. Each user has to set the defaults individually, because global defaults are specified on a per user basis.

Refer to the *Connect:Enterprise for z/OS ISPF User's Guide* for more information on the global defaults that must be specified for automatically identifying the target Connect:Enterprise during initial invocation.



---

## Installing the CICS Interface

The Connect:Enterprise CICS interface handles Connect:Enterprise administrative functions in the CICS IRC/ISC environment. Before you begin the installation, review the *Connect:Enterprise for z/OS Release Notes* to ensure that your host system meets all requirements.

---

### Unloading the Distribution Tape

The Connect:Enterprise distribution tape, which uses standard labels, contains the CICS interface files listed in the following table:

File	Description
CECICS.LOAD LABEL-6	Contains the link-edited CICS interface load modules. The load modules must reside in a library that is defined by DFHRPL in your CICS system startup JCL.
CECICS.VSAM LABEL-12	Contains the CICS administration file data records.

By default, the CECICS.LOAD file is unloaded to the output file listed in the following table. The Connect:Enterprise documentation refers to the file using the default name; however, you can assign a different name when you edit the CECIUNLD JCL to unload the file.

Data Set Name	Format	LRECL	BLKSIZE	DIR BLOCKS	3390 Tracks Required
ENTPRS.CICS.LOAD	U	0	6144	25	85

To unload the CICS interface files from the distribution tape:

1. Modify the example member CECIUNLD in the ENTRPRS.EXAMPLE library for your system.
2. If your OUTFILE has already been allocated, verify that the installation data sets are empty before you unload the tape.
3. Replace the job card in the JCL with a valid job card.
4. Replace XXXX in the JCL with the DASD unit number where you intend to unload the installation data sets.
5. Submit the JCL.

For a description of the members of the ENTRPRS.EXAMPLE library that are specific to the CICS interface, see *CICS Interface Files* on page 33.

---

## Defining and Initializing the CICS Interface Administration File

The VSAM administration file is a key-sequenced data set that stores CICS interface information, such as:

- ◆ Help text and message library text records created during installation
- ◆ Records added during initial system startup
- ◆ Connection definitions that identify remote Connect:Enterprise VTAM systems
- ◆ Batch ADD, Batch EXTRACT, and Auto Connect Model definitions
- ◆ Records to save terminal screens between transactions

If you have already installed a version of the Connect:Enterprise CICS interface, you do not have to create a new administration file. You can retain and update your existing CICS interface administration file with new Message Library and Help text records and preserve existing definitions (connections, exits, or models). Any Help records that you created are preserved; any system-supplied Help records that you modified are replaced. To update your CICS administration file, go to the procedures in *Retaining an Existing CICS Administration File* on page 73.

To create a CICS administration file for a new installation, or to replace your CICS administration file, perform the procedures in *Creating a New CICS Administration File* on page 72.

### Creating a New CICS Administration File

To create a new CICS administration file:

1. Edit the JCL in the ENTRPRS.EXAMPLE (CECIVDEF).
2. Replace ? in the JCL with the appropriate values for your system.

The approximate disk space required for a minimum size file (7000 records) is 500 tracks for a 3390 disk.

3. Replace all data set names with names of your choice.



4. Increase the RECORDS value if you plan to add many Help text records or model records.  
Every CICS terminal that uses Connect:Enterprise at your installation will have 10 records added to this file for every logon of a unique occurrence of a terminal ID. These records store terminal screens between transactions. These records are not deleted until the CICS region is restarted. Plan for significant file growth as the number of users increases.
5. Define the remaining VSAM initialization parameters in accordance with the VSAM standards followed at your site.  
  
Do not change the definition for the file attributes (SHAREOPTIONS, CISZ, KEYS, and RECSZ) in the installation JCL. Modifying any of these parameters can cause system malfunction.
6. Submit the JCL to create the VSAM administration file.

---

**Note:** As with any VSAM-indexed file, the administration file can require occasional reorganization. How occasional depends on the number of connection definitions or model records that you add or delete, and the number of Help text modifications and additions.

---

7. Update the administration file Message library and Help text records from the distribution tape using the procedure in *Updating the Administration File* on page 74.

## Retaining an Existing CICS Administration File

If you are updating your CICS administration file, you may need to expand the file size. Refer to *Expanding the Administration File* on page 73 for instructions. To update the administration file without expanding it, continue with the procedure in *Updating the Administration File* on page 74.

## Expanding the Administration File

The minimum size of the administration file is 7000 records. You may need to expand your existing administration file before you unload the Help text and Message Library records from the distribution tape, depending on your administration file definition and contents.

To expand your administration file:

1. Edit the CECIVDEF JCL in the ENTPRS.EXAMPLE.
2. Replace ? in the JCL with the appropriate values for your system.
3. Replace all data set names with names of your choice.
4. Increase the RECORDS value if you plan to add many Help text records or model records.
5. Define the remaining VSAM initialization parameters in accordance with the VSAM standards followed at your site.
6. Preserve all required parameter values.
7. Submit the JCL to create a new cluster.
8. Copy your current administration file into the new cluster.
9. Continue with *Updating the Administration File* on page 74.

## Updating the Administration File

To update the new or existing administration file with current Message Library and Help text records:

1. Edit the CECIVREP JCL in the ENTPRS.EXAMPLE library.
2. Replace the CIADMFL data set name with the name of the existing CICS administration file.  
Do not remove the REPLACE command from the REPRO statement. If REPLACE is not specified, the job fails with duplicate record errors.
3. Submit the JCL to update the administration file.
4. Specify the administration file in the CICS process with DD ??ADMFL, where ?? represents your user-defined two-letter prefix, if you use a prefix other than CM, the default. See *Renaming the CICS Interface* on page 75 for more information.

---

## Creating the CICS Definitions

To complete the installation, ensure that your Connect:Enterprise system operates correctly by verifying your VTAM definitions and CICS operational environment. After you install the CICS interface, you must define its resources to CICS.

### Verifying the VTAM Definition

Review the ACF/VTAM application definition for your CICS system for the following options in the VTAM APPL statement:

Option	Description
AUTH=(ACQ,VPACE,...)	Enables CICS to acquire LUTYPE6 sessions and to control pacing of intersystem flows
VPACING=n	Specifies the pacing rate
EAS=n	Specifies the number of network-addressable units with which CICS can establish sessions
PARSESS=YES	Enables LUTYPE6 parallel session support
SONSCIP=YES	Enables session outage notification support

---

**Note:** Do not specify APPC=YES in the VTAM APPL statement in your ACF/VTAM application definitions.

---

The following is a sample CICS VTAM definition:

CICSAPPL APPL	AUTH= (PASS, ACQ, VPACE) ,	*
	VPACING=60 ,	*
	EAS=25 ,	*
	PARSESS=YES ,	*
	HAVAIL=YES ,	*
	SONSCIP=YES	*

Define ACF/VTAM LOGMODE entries for the following:

- ◆ Every mode name that you supply when defining LUTYPE6.2 links
- ◆ The LU services manager mode set (SNASVCMG)

For a complete discussion of intersystem connectivity, please see the IBM document *Intercommunication Guide*.

## Verifying the CICS Operational Environment

Review the system initialization table (DFHSIT) definition, or any initialization overrides, for the following option:

Option	Description
ISC=YES	Enables intercommunications programs

You must specify the parameter ISC=YES in the system initialization table (SIT) to include the CICS Intercommunication Group Programs. These programs are required for processing the LU6.2 protocol within CICS.

## Renaming the CICS Interface

By default, Connect:Enterprise uses the prefix CM for all its program, mapsets, file, and transaction resource definitions. It may become necessary to rename the CICS interface, perhaps due to installation standards at your site or to eliminate naming conflicts. You can change the two-character prefix (CM) to any acceptable combination of characters. After you change these definitions, internally assigned resources, such as Temporary Queue names and enqueue names, use the same two-character prefix as the rest of the CICS interface system. If you use a prefix other than CM, an additional installation step is required.

Connection definitions are the exception to this rule. No standard connection definition is delivered with the CICS interface, so no standard name needs modification and no internally defined resource is affected. You are responsible for complete definition of the connections and must subsequently define these connections to the CICS interface. Any connection identifiers (names) that you select are acceptable to the CICS interface.

## Defining Application Resources to CICS Using the IBM DFHCSDUP Utility

You define the following Connect:Enterprise CICS interface resources to your CICS region.

Definition	Mapset
CSD MAPSET	Define one CSD mapset definition per mapset.
CSD PROGRAM	Define one CSD PROGRAM definition per program.
CSD TRANSACTION	Define one CSD TRANSACTION definition per transaction.
CSD FILE	Define one CSD FILE definition per CICS interface administration file.
CSD CONNECTIONS	Define one CSD CONNECTIONS definition per Connect:Enterprise connection.
CSD SESSIONS	Define one CSD SESSIONS definition per connection definition. Because CICS can contain many connection definitions, the CICS interface requires that you define which connection definitions are for use between the CICS interface and Connect:Enterprise. This definition Process is accomplished using option 10.3, LU6.2 Connections Definitions Update in the Administration Functions section of the CICS interface.

The CSD definitions required for the Connect:Enterprise CICS interface depend on whether this is a new installation or an upgrade from a version of the Connect:Mailbox or the Connect:Enterprise CICS interface.

## Creating CICS CSD Definitions for a New Installation Using the RDO Utility

To create CSD definitions when no earlier version of the Connect:Mailbox or the Connect:Enterprise CICS interface is installed, use the CECICIN1 and CECICIN2 example members.

---

**Note:** This procedure describes editing and running the CECICIN1 and CECICIN2 JCLs sequentially, but that is not required. You can run the CECICIN2 JCL before or after the CECICIN1 JCL and run it many times with different connection/session definitions.

---

1. To create mapset, program, transaction, and file definitions, modify the CECICIN1 example member as follows:
  - a. Edit the STEPLIB DD parameter to point to your CICS SDFHLOAD library.
  - b. Edit the DFHCSD DD parameter to point to your CICS region CSD file.
  - c. Change ?? to CM or your selected 2-letter prefix in definitions for file, programs, mapsets, and transactions.
  - d. Supply a valid job card and submit the CECICIN1 JCL.
2. Modify the example member CECICIN2 as follows:
  - a. Edit the STEPLIB DD parameter to point to your CICS SDFHLOAD library.
  - b. Edit the DFHCSD DD parameter to point to your CICS region CSD file.

- c. Edit the CECICIN2 JCL to define job variables and supply connection, netname, mode name, and session values for your system.
  - d. Change ?? to CM or your selected 2-letter prefix.
  - e. Supply a valid job card and submit the CECICIN2 JCL.
3. If you use a prefix other than CM in the CECICIN1 JCL, run CECICRNM.

---

**Note:** RC=4 is acceptable for these RDO jobs.

---

After you rename the system, you can write an API to LINK program ??62002, where ?? represents the new prefix you assigned.

### Upgrading CICS CSD Definitions Using the RDO Utility

To upgrade CICS CSD definitions:

1. Select the example member that applies to your site from the following table:

To Upgrade from	Use This Example Member
Connect:Mailbox - any version	CECICUPM
Connect:Enterprise, version 1.0.00	CECICUP0
Connect:Enterprise, version 1.1.00	CECICUP1
Connect:Enterprise version 1.2.00	CECICUP2
Connect:Enterprise version 1.3.00	CECICUP3

2. Edit the CECIxxxx example member for your site.
3. Supply a valid job card and submit the CECIxxxx JCL.
4. If you use a prefix other than CM, run CECICRNM.

---

**Note:** RC=4 is acceptable for these RDO jobs.

---

After you rename the system, you can write an API to LINK program ??62002, where ?? represents the new prefix you assigned.

---

## Additional CICS Installation Considerations

The following topics describe warm starting the CICS interface and optional security considerations.

## Warm Starting Temporary Storage in CICS

If your CICS region does a warm start of temporary storage meaning that the CICS region comes up warm and there is no TS=COLD condition, you must run CMRESET during the third phase of CICS initialization. If you renamed your CICS interface (see *Defining Application Resources to CICS Using the IBM DFHCSDUP Utility* on page 76), you must also install and rename CMRESET.

To install CMRESET:

1. Assemble and link PLT LOAD module into your CICS SDFHLOAD library using the following macro statements.

```
DFHPLT TYPE=INITIAL, SUFFIX=yy
DFHPLT TYPE=ENTRY, PROGRAM=DFHDELIM
DFHPLT TYPE=ENTRY, PROGRAM=xxRESET
DFHPLT TYPE=FINAL
END
```

2. Change the xxRESET file name to match the new name of the interface.
3. Change yy to the PLT LOAD module suffix you are using. For example, the preceding macro statements creates LOAD module DFHPLTyy in SDFHLOAD.
4. Specify PLTPI=yy in your CICS SIT table or in your CICS SIT override statements, where yy represents the module suffix.
5. Create a program entry for xxRESET. The following is a sample RDO Macro program definition:

```
DEFINE PROGRAM (xxRESET) GROUP (CEINST)
  LANGUAGE (ASSEMBLER)
  RELOAD (NO)
  RESIDENT (NO)
  USAGE (NORMAL)
  USELPACOPY (NO)
  STATUS (ENABLED)
  CEDF (YES)
  DATALOCATION (BELOW)
  EXECKEY (USER)
  EXECUTIONSET (FULLAPI)
```

## Optional Security Considerations

If you write an API to communicate with Connect:Enterprise, security in CICS version 3.x and later is implemented using an external security manager, such as RACF or other third-party security manager, or a user-written security manager.

---

# Verifying the Connect:Enterprise Installation

The sample installations provided in this chapter enable you to test the basic operation of the Connect:Enterprise without configuring all the ODF records required for your production system. These test installations guide you through the main steps for each type of installation:

- ◆ Create the user assembly (BSC communications only)
- ◆ Create the test ODF
- ◆ Start the VSAM file server from the system console
- ◆ Execute online

---

**Note:** The test ODFs in this chapter are provided to verify the installation only. After you verify the installation, refer to the ODF configuration chapters of the *Connect:Enterprise for z/OS Administration Guide* to create your site-specific ODF.

---

---

## Sample Installations for Testing

This section provides two sample Connect:Enterprise installations for SNA, two sample Connect:Enterprise installations for BSC, and two sample Connect:Enterprise installations for FTP. Choose the one appropriate for testing the type of installation that you will ultimately configure.

If you use any of the model JCL, change the library names and module names as required for your installation. You also need to change UNIT and VOLSER information as required. The sample JCL uses standard names for the source and load libraries.

### System 1—Small Connect:Enterprise SNA System

This Connect:Enterprise sample contains three remote sites that use default options for most parameters. Connect:Enterprise is defined as an application program named ENTPRS to VTAM.

1. Create the ODF.

Because a small system with few options is being generated, a limited ODF is required. Use the following JCL to create a basic ODF named ENTPRS.OPTFILE.TEST:

```

//GENOPT      JOB      . . . .
//STEP1       EXEC    PGM=IEBGENER
//SYSPRINT    DD      SYSOUT=*
//SYSIN       DD      DUMMY
//SYSUT2      DD      DSN=ENTPRS.OPTFILE.TEST,DISP=(NEW,KEEP),
// UNIT=3350,VOL=SER=VOLO88,SPACE=(TRK,1),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSUT1      DD      *
*OPTIONS
  VPF='VSAM.POINTER.FILE.NAME'
  VTAM=YES
  PASSWORD=TESTSYS
  APPLID=ENTPRS
  VBQROTAT=2
  VBQPCT=80
*REMOTES
  NAME=RMT001
    TYPE=LU1RJE
  NAME=RMT002
    TYPE=LU1RJE
  NAME=RMT003
    TYPE=LU1RJE
/*

```

2. Start the VSAM file server from the system console:

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

3. Start the Connect:Enterprise sample system by completing all other Connect:Enterprise installation steps, then executing the following model JCL:

```

//CMBOX       JOB      . . . .
//STEP1       EXEC    PGM=STMAIN,PARM='SRV1',REGION=4500K
//STEPLIB    DD      DSN=ENTPRS.LOAD,DISP=SHR
//SYSUDUMP    DD      SYSOUT=*
//SNAPOUT     DD      DSN=ENTPRS.SNAPOUT,DISP=SHR
//BTSNAP      DD      DSN=ENTPRS.BTSNAP,DISP=SHR
//OPTDEF      DD      DSN=ENTPRS.OPTFILE.TEST,DISP=SHR

```

## System 2—Large Connect:Enterprise SNA System

This sample, as described by the following ODF, contains four remote sites, uses batch security, and uses the Auto Connect function.

The sample Connect:Enterprise system is accessed by four remote sites. Batches sent on the system contain sensitive data, so batch security is used and Mailbox IDs are assigned to all users of the system. A tailored LOGON message is sent to the remote site after a successful LOGON to Connect:Enterprise. Because this installation is relatively new, the SNA trace function is active, and the Snapshot data set is regularly checked for unusual conditions or other errors. Connect:Enterprise is defined as an application program named ENTPRS to VTAM.



Three remote sites include an LUNAME specification so that an Auto Connect is activated for the proper remote site. Batches sent to RMT001 and RMT002 default to the card punch media, and these terminals have a disconnect interval set to two minutes. RMT003 batches are directed to the transmission exchange disk, and no disconnect interval is set for RMT003.

The fourth remote site uses logical unit name pooling and is connected to a remote site using SPC version 1.4 or later.

An Auto Connect session is activated for all four remote sites daily at 2:00 a.m. and at 4:00 a.m. Payroll, accounts receivable, and accounts payable reports for each of the sites are sent to the remote printer media. A short disconnect interval is set, because the remote sites are operating unattended and no input data is expected.

1. Create the ODF.

```

//GENOPT    JOB      ...
//STEP1     EXEC    PGM=IEBGENER
//SYSPRINT  DD      SYSOUT=*
//SYSIN     DD      DUMMY
//SYSUT2    DD      DSN=ENTPRS.OPTFILE.PROD,DISP=(NEW,KEEP),
//          UNIT=3350,VOL=SER=VOLO88,SPACE=(TRK,1),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSUT1    DD      *
*OPTIONS
  VPF='VSAM.POINTER.FILE.NAME'
  VTAM=YES
  PASSWORD=SECRET
  APPLID=ENTPRS
  SECURITY=BATCH
  SCINCOR=YES
  LOGONMSG='THIS IS THE Connect:Enterprise PRODUCTION SYSTEM'
  TRACE=SNA
*SECURITY
  ID=APPLE ID=FRUIT ID=ORANGE ID=PLUM ID=BANANA
  ID=GRAPE ID=TOMATO ID=PEACH ID=MELON ID=KIWI
*REMOTES
  NAME=RMT001
    TYPE=LU1RJE
    LUNAME=LUA001
    MEDIA=PU
    DISCINTV=120
  NAME=RMT002
    TYPE=LU1RJE
    LUNAME=LUA002
    MEDIA=PU
    DISCINTV=120
  NAME=RMT003
    TYPE=LU1RJE
    LUNAME=LUA003
    MEDIA=EX
    DISCINTV=0
  NAME=RMT004
    TYPE=LU1RJE
    POOL=SPCPOOL1
    SC=SPC
*POOLS
  NAME=SPCPOOL1
    LU=SPCLU1,SPCLU2
    LU=SPCLU3,SPCLU4
*CONNECT
  LISTNAME=AUTOCALL
  TYPE=LU1RJE
  TIME=02:00, 04:00
  DISCINTV=5
  RMT001 MEDIA=PR IDLIST=PAYROLL1,ACCTPAY1,ACCTREC1
  RMT002 MEDIA=PR IDLIST=PAYROLL2,ACCTPAY2,ACCTREC2
  RMT003 MEDIA=PR IDLIST=PAYROLL3,ACCTPAY3,ACCTREC3
  RMT004 MEDIA=PR IDLIST=PAYROLL4,ACCTPAY4,ACCTREC4
/*

```

2. Start the VSAM file server from the system console:

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

3. Start the Connect:Enterprise sample system by completing all other Connect:Enterprise installation steps, then executing the following model JCL:

```
//CMBOX      JOB      ....
//STEP1      EXEC    PGM=STMAIN, PARM='SRV1', REGION=4500K
//STEPLIB    DD      DSN=ENTPRS.LOAD, DISP=SHR
//SYSUDUMP    DD      SYSOUT=*
//SNAPOUT    DD      DSN=ENTPRS.SNAPOUT, DISP=SHR
//BTSNAP     DD      DSN=ENTPRS.BTSNAP, DISP=SHR
//OPTDEF     DD      DSN=ENTPRS.OPTFILE.PROD, DISP=SHR
```

### System 3—Small Connect:Enterprise BSC System

The Connect:Enterprise sample system 3 contains three lines:

- ◆ Two BSC switched lines, named LINE001 and LINE002. Units 028 and 029 generated for use by the Connect:Enterprise switched lines on the host system.
- ◆ One BSC nonswitched point-to-point line, named TEST3780. Unit 050 generated for the line on the host system.

1. Create the user assembly.

Use the following model JCL to assemble and link a user assembly module named NETWORK1:

```
//USERASM      JOB      ...
//STEP1      EXEC    ASMFCL, PARM.LKED=(NCAL,LIST,XREF)
//ASM.SYSLIB  DD      DSN=ENTPRS.SOURCE, DISP=SHR
//           DD      DSN=SYS1.MACLIB, DISP=SHR
//ASM.SYSIN   DD      *
M$LINEX ID=LINE001,TYPE=BSCSW
M$LINEX ID=LINE002,TYPE=BSCSW
M$LINEX ID=TEST3780,TYPE=BSCNS
M$ENDX
END
//LKED.SYSLMOD DD      DSN=ENTPRS.LOAD(NETWORK1), DISP=SHR
//*
```

2. Create the ODF.

Because a small network with few options is being generated, a limited ODF is required. Use the following model JCL to create a basic ODF named ENTPRS.OPTFILE.TEST:

```

//GENOPT      JOB      . . . .
//STEP1       EXEC    PGM=IEBGENER
//SYSPRINT    DD      SYSOUT=*
//SYSIN       DD      DUMMY
//SYSUT2      DD      DSN=ENTPRS.OPTFILE.TEST,DISP=(NEW,KEEP),
// UNIT=3350,VOL=SER=VOL088,SPACE=(TRK,1),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSUT1      DD      *,DLM=ZZ
*OPTIONS
VPF='VSAM.POINTER.FILE.NAME'
BTAM=YES
PASSWORD=TESTNET
UA=NETWORK1
ZZ

```

3. Start the VSAM file server from the system console:

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

4. Bring up online Connect:Enterprise by completing all other Connect:Enterprise installation steps, then execute the following JCL:

```

//CMBOX       JOB      . . . .
//STEP1       EXEC    PGM=STMAIN, PARM='SRV1', REGION=4500K
//STEPLIB    DD      DSN=ENTPRS.LOAD,DISP=SHR
//SYSUDUMP    DD      SYSOUT=*
//SYSPRINT    DD      SYSOUT=*
//SNAPOUT    DD      DSN=ENTPRS.SNAPOUT,DISP=SHR
//BTSNAP     DD      DSN=ENTPRS.BTSNAP,DISP=SHR
//OPTDEF     DD      DSN=ENTPRS.OPTFILE.TEST,DISP=SHR
//LINE001    DD      UNIT=028      SWITCHED LINE LINE001
//LINE002    DD      UNIT=029      SWITCHED LINE LINE002
//TEST3780   DD      UNIT=050      LEASED LINE TEST3780

```

## System 4—Large Connect:Enterprise BSC System

The Connect:Enterprise sample system 4 contains eight lines:

- ◆ A BSC switched line named LINE001 on Unit 028
- ◆ A BSC switched line named LINE002 on Unit 029
- ◆ A BSC switched line named LINE003 on Unit 030
- ◆ A BSC switched line named LINE004 on Unit 031
- ◆ A BSC switched line named LINE5AD on Unit 032 equipped with the SADL autodial function
- ◆ A BSC switched line named LINE6AD on Unit 033 equipped with the SADL autodial function
- ◆ A BSC nonswitched leased line named PROD3780 on Unit 050
- ◆ A BSC nonswitched leased line named PROD2780 on Unit 051

The remote terminal on this line is a 2780 that requires a record separator of X'1F' when sending and receiving blocked records.

1. Create the user assembly for sample system 4.

Use the following model JCL to assemble and link a user assembly module named NETWORK:

```
//USERASM JOB    ... AS REQUIRED FOR YOUR SITE
//*****
//*    RUN THE Connect:Enterprise USER ASSEMBLY
//*****
//*
//USERASM        EXEC  ASMFCL, PARM.LKED=(NCAL,LIST,XREF)
//ASM.SYSLIB     DD   DSN=ENTPRS.SOURCE,DISP=SHR
//              DD   DSN=SYS1.MACLIB,DISP=SHR
//ASM.SYSIN      DD   *
M$LINEX ID=LINE001,TYPE=BSCSW,BCHSEP=OPT2  *
M$LINEX ID=LINE002,TYPE=BSCSW,RECSEP=1E    *
M$LINEX ID=LINE003,TYPE=BSCSW,RECSEP=1E    * SAMPLE
M$LINEX ID=LINE004,TYPE=BSCSW,RECSEP=1E    * ONLY
M$LINEX ID=LINE5AD,TYPE=BSCSW,MODEM=SADL  *
M$LINEX ID=LINE6AD,TYPE=BSCSW,MODEM=SADL  *
M$LINEX ID=PROD3780,TYPE=BSCNS            *
M$LINEX ID=PROD2780,TYPE=BSCNS,RECSEP=1F  *
M$ENDX
END
//LKED.SYSLMOD  DD   DSN=ENTPRS.LOAD(NETWORK),DISP=SHR
//*
```

2. Create the ODF.

This sample Connect:Enterprise network, described by the ODF, is accessed by a variety of remote sites located across the United States. Because some of the batches sent and received from the host contain sensitive data, full security is used on the system. All accesses to the system over switched lines must provide a valid Mailbox ID to send or request batches. The host site has assigned Mailbox IDs to the remote sites in the range REMOT001-REMOT004. Because new remote sites are added to or dropped from the system weekly, not all Mailbox IDs are currently assigned.

The ODF is changed frequently to add and delete the Mailbox IDs.

Only the two leased lines can send in data without a valid Mailbox ID. Their line IDs are defined as valid Mailbox IDs, which permits any input on those lines.

The two autodial lines, LINE5AD and LINE6AD, automatically dial different remote sites in cities within the United States. The Auto Connect function calls the remote sites automatically every morning at 2:00 a.m. and 4:00 a.m. to send and receive data batches.

```

//OPTBSC JOB ... AS REQUIRED FOR YOUR SITE
//*****
//* GENERATE THE OPTIONS DEFINITION FILE
//*****
//*
//GENOPT EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//SYSUT2 DD DSN=ENTPRS.OPTFILE,DISP=(NEW,KEEP),UNIT=XXXX,
// VOL=SER=NNNNNN,SPACE=(TRK,(1,1)),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200)
//*
//* THE FOLLOWING IS SAMPLE DATA ONLY
//*
//SYSUT1 DD DATA,DLM=ZZ
*OPTIONS
** THIS IS A COMMENT CARD, COMMENTS START WITH "***"
BTAM=YES
VPF='VSAM.POINTER.FILE.NAME'
PASSWORD=ENTPRS
UA=NETWORK USER ASSEMBLY SYSLMOD NAME
SECURITY=BATCH
ACQDEFAULT=YES
*SECURITY
ID=REMOT001 ID=REMOT002 ID=REMOT003 ID=REMOT004
ID=PROD3780 ID=PROD2780
*CONNECT
LISTNAME=ECOAST
TYPE=BSCAD
TIME=02:00, 04:00
BOSTON 11 16175551212 MODE=RECVONLY
NEWYORK 11 12125551212 MODE=RECVONLY
LISTNAME=WCOAST
TYPE=BSCAD
TIME=02:00, 04:00
SEATTLE 07 8782947 MODE=SENDONLY
SANFRAN 07 8872947 MODE=SENDONLY
LISTNAME=JESLIST
TYPE=BSCAD
TIME=02:00,04:00
JES=YES
SIGNOFF=YES
DISCINTV=300
JES01 07 5551212 MODE=SENDRECV BLOCK=5 CMP=Y
/*SIGNON RMT050 PASSWRD1
JES02 07 5551313 MODE=SENDRECV BLOCK=5 CMP=Y
/*SIGNON RMT051 PASSWRD2
ZZ

```

3. Start the VSAM file server from the system console:

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

4. Execute the Connect:Enterprise sample system 4.

Start Connect:Enterprise by completing all other Connect:Enterprise installation steps, then executing the following JCL:

```

//CMBOX    JOB    ...    AS REQUIRED FOR YOUR SITE
//*****
//*        EXECUTE  Connect:Enterprise ONLINE
//*****
//*
//* STEP 1:   EXECUTE Connect:Enterprise
//*          (REQUIRED)
//*
//CMBX     EXEC  PGM=STMAIN, PARM='SRV1', REGION=4500K
//*
//STEPLIB DD    DSN=ENTPRS.LOAD, DISP=SHR
//SYSUDUMP DD   SYSOUT=*
//SYSPRINT DD   SYSOUT=*
//LINE001 DD   UNIT=028          *
//LINE002 DD   UNIT=029          * SAMPLE
//LINE003 DD   UNIT=030          * NETWORK
//LINE004 DD   UNIT=031          * ONLY
//LINE5AD  DD   UNIT=032          *
//LINE6AD  DD   UNIT=033          *
//PROD3780 DD   UNIT=050          *
//PROD2780 DD   UNIT=051          *
//OPTDEF   DD   DSN=ENTPRS.OPTFILE, DISP=SHR
//SNAPOUT  DD   DSN=ENTPRS.SNAPOUT, DISP=SHR
//BTSNAP   DD   DSN=ENTPRS.BTSNAP, DISP=SHR
//*

```

## System 5—Small Connect:Enterprise FTP System

This system, as defined by the following ODF, contains one client remote site and one server remote site. The sample Connect:Enterprise acts as both an FTP server and an FTP client. The Auto Connect list named FTPLIST starts logon script FTPLOGON to connect to remote FTPRMT. AC\_SCRIPT COMPAN YA, and sends batches from mailbox MBXABC to the remote FTP server. Remote FTP clients can establish a session with Connect:Enterprise through remote FTPCLNT.

1. Use the following JCL to create a basic ODF name ENTPRS.OPTFILE.TEST:

```

//GENOPT          JOB.....
//STEP1           EXEC PGM=IEBGENER
//SYSPRINT        DD  SYSOUT=*
//SYSIN           DD  DUMMY
//SYSUT2          DD  DSN=ENTPRS.OPTFILE.TEST,DISP=(NEW,KEEP),
//                UNIT=3380,VOL=SER=VOLnnnn,SPACE=(TRK,1),
//                DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSUT1          DD  *
*OPTIONS
  APDSN=YOUR.ASSET.PROTECT.FILE.NAME
  VPF='VSAM.POINTER.FILE.NAME'
  APPLID=XXXXXXXX
  VBQROTAT=2
  VBQPCT=90
  VTAM=YES
  MODIFY=YES
  SSL=NO
  FTP=YES
  FTP_MAX_SERVER_THREADS=4
  FTP_MAX_CLIENT_THREADS=4
  FTP_SERVER_CONTROL_PORT=nnnn
  FTP_LOGON_SCRIPT_DEFAULT=FTPLOGON
  FTP_LOGON_REPLY=2
You are logged onto Connect:Enterprise 1.2.00 FTP Server.
SSL use is OFF.
*CONNECT
  LISTNAME=FTPLIST
  TYPE=FTP
  ACQUEUE=YES
  FTPRMT BCHSEP=OPT3 OB=N AC_SCRIPT=COMPANYA
*REMOTES
  NAME=FTPRMT
  TYPE=FTP_SERVER
  NAME=FTPCLNT
  TYPE=FTP_CLIENT

```

2. Start the VSAM file server from the system console.

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

3. Scripts FTPLOGON and COMPANYYA are members of library ENTPRS.REXX.SCRIPTS. Start the Connect:Enterprise sample system by completing all other Connect:Enterprise installation steps, then executing the following model JCL:

```

//CMBOX          JOB.....
//STEP1          EXEC PGM=STMAIN, PARM='SRV1', REGION=0K
//STEPLIB        DD  DSN=ENTPRS.LOAD,DISP=SHR
//SYSUDUMP        DD  SYSOUT=*
//SNAPOUT        DD  DSN=ENTPRS.SNAPOUT,DISP=SHR
//BTSNAP         DD  DSN=ENTPRS.BTSNAP,DISP=SHR
//OPTDEF         DD  DSN=ENTPRS.OPTFILE.TEST,DISP=SHR
//SYSEXEC        DD  DSN=ENTPRS.REXX.SCRIPTS,DISP=SHR

```



4. Verify that the FTPLOGON and COMPANYA scripts are in ENTPRS.REXX.SCRIPTS before starting Auto Connect FTPLIST.

```
/* FTPLOGON REXX */
"OPEN MVSA,5566"
"USER BREMOTE"
"PASS BANANA"
exit 0
```

```
/* COMPANYA REXX */
"LOCCD MBXABC"
"PUT *"
"QUIT"
exit 0
```

## System 6 – Large Connect:Enterprise FTP System

The system defined by the following ODF contains both client and server remote sites. The sample Connect:Enterprise acts as both an FTP server and an FTP client. SSL security is turned on but its use is optional. The Auto Connect list named EASTERN starts logon script LOGNY which connects to remote NYRMT. The AC script ACNY sends batches from mailbox NEWYORK to the remote FTP server. Auto Connect list EASTERN also connects to remote VIRRMT using logon script LOGVIR and uses AC\_SCRIPT ACVIR to send batches from mailbox VIRGINIA to the remote FTP server. When Auto Connect list WEST is run, logon script FTPLOGON (\*OPTION default) connects to both CARMT and WASHRMT. The script variables USERID, PASSWORD, PORTNO, and IPADDR are passed to logon script FTPLOGON and set for CARMT and WASHRMT using the \*REMOTES ODF parameters. AC\_SCRIPT SENDONLY is used for both CARMT and WASHRMT after the FTPLOGON script is run. Batches from mailbox CALIFOR are sent to remote CARMT, and batches from mailbox WASHGTN are sent to remote WASHRMT. Remote FTP clients can establish a session with Connect:Enterprise through remote FTPCLNT or FTPCLNT2.

1. Use the following JCL to create a basic ODF named ENTPRS.OPTFILE.TEST:

```

//GENOPT      JOB.....
//STEP1       EXEC PGM=IEBGENER
//SYSPRINT    DD  SYSOUT=*
//SYSIN       DD  DUMMY
//SYSUT2      DD  DSN=ENTPRS.OPTFILE.TEST,DISP=(NEW,KEEP) ,
//            UNIT=3380,VOL=SER=VOLnnnn,SPACE=(TRK,1) ,
//            DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSUT1      DD  *
*OPTIONS
APDSN=YOUR.ASSET.PROTECT.FILE.NAME
VPF='VSAM.POINTER.FILE.NAME'
APPLID=XXXXXXXX
VBQROTAT=2
VBQPCT=90
VTAM=YES
MODIFY=YES
SSL=YES
SSL_KEY_DBASE_PW='SEC'
SSL_KEY_DPASE='U/KSTIC1/'
SSL_TIMEOUT=00300
SSL_SERVER_CERT='SERVER1'
SSL_CIPHER_SUITE=06010203
SSL_DEFAULT_POLICY=OPTIONAL
SSL_DEFAULT_CLIENT_AUTH_POLICY=OPTIONAL
FTP=YES
FTP_DEFAULT_DISCINTV=60
FTP_MAX_SERVER_THREADS=4
FTP_MAX_CLIENT_THREADS=4
FTP_SERVER_CONTROL_PORT=nnnn
FTP_LOGON_SCRIPT_DEFAULT=FTPLOGON
FTP_AC_SCRIPT_DEFAULT=SENDONLY
FTP_LOGON_REPLY=2
You are logged onto Connect:Enterprise 1.2.00 FTP Server.
SSL use is OFF.
*CONNECT
LISTNAME=EASTERN
TYPE=FTP
ACQUEUE=YES
NVRMT BCHSEP=OPT3 OB=N AC_SCRIPT=ACNY
VIRRMT AC_SCRIPT=ACVIR
LISTNAME=WEST
TYPE=FTP
CARMT &BEGINLIST=CALIFOR
WASHRMT &BEGINLIST=WASHGTN

```

continued on next page with \*REMOTES record

```

*REMOTES
NAME=NYRMT
  TYPE=FTP_SERVER
  LOGON_SCRIPT=LOGNY
NAME=VIRRMT
  TYPE=FTP_SERVER
  LOGON_SCRIPT=LOGVIR
NAME=CARMT
  TYPE=FTP_SERVER
  &IPADDR=124.43.154.43
  &USERID=CALUSR
  &PASSWORD=HORSE
  &PORTNO=5566
NAME=WASHRMT
  TYPE=FTP_SERVER
  &IPADDR=124.43.154.43
  &USERID=WASHUSR
  &PASSWORD=FRIENDS
  &PORTNO=2352
NAME=FTPCLNT
  TYPE=FTP_CLIENT
NAME=FTPCLNT2
  TYPE=FTP_CLIENT

```

2. Start the VSAM file server from the system console:

```
S procname
```

The VSAM file server starts with the default subsystem name SRV1.

3. Scripts FTPLOGON, LOGVIR, LOGNY, SENDONLY, ACNY, and ACVIR are members of library ENTPRS.REXX.SCRIPTS. Start the Connect:Enterprise sample system by completing all other Connect:Enterprise installation steps, then executing the following model JCL:

```

//CMBOX      JOB.....
//STEP1      EXEC   PGM=STMAIN, PARM='SRV1', REGION=0K
//STEPLIB    DD     DSN=ENTPRS.LOAD, DISP=SHR
//SYSUDUMP    DD     SYSOUT=*
//SNAPOUT    DD     DSN=ENTPRS.SNAPOUT, DISP=SHR
//BTSNAP     DD     DSN=ENTPRS.BTSNAP, DISP=SHR
//OPTDEF     DD     DSN=ENTPRS.OPTFILE.TEST, DISP=SHR
//SYSEXEC    DD     DSN=ENTPRS.REXX.SCRIPTS, DISP=SHR

```

4. Verify the following FTPLOGON, LOGVIR, LOGNY, SENDONLY, NEWYORI, and VIRGINIA scripts are in ENTPRS.REXX.SCRIPTS before starting the Auto Connect list, FTPLIST.

```

/* FTPLOGON REXX */
"OPEN" ipaddr, "portno
"USER"  userid
"PASS"  password
exit 0

```

```
/* LOGVIR REXX */  
"OPEN VIRSRV,4321"  
"USER VIRUSR  
"PASS MYPASS"  
exit 0
```

```
/* LOGNY REXX */  
"OPEN NYSRV,5263"  
"USER NYUSR  
"PASS DOGHOUSE"  
exit 0
```

```
/* SENDONLY REXX */  
"LOCCD" beginlist  
"PUT *"  
"QUIT"  
exit 0
```

```
/* ACVIR REXX */  
"LOCCD VIRGINIA"  
"PUT *"  
"QUIT"  
exit 0
```

```
/* ACNY REXX */  
"LOCCD NEWYORK"  
"PUT *"  
"QUIT"  
exit 0
```

## A

### ACQUEUE

Specifies the disposition of an Auto Connect session that is unable to be initiated because there is no BSC line, SNA session, or FTP thread available or the Auto Connect session is currently active. When the parameter ACQUEUE=YES is specified, the Auto Connect session is queued and initiation is attempted at a later time. Otherwise, the Auto Connect session is terminated with an error condition.

### ADD Utility

A set of instructions used to submit the Connect:Enterprise ADD utility. The ADD utility is used to add batches to the VSAM batch files for access by the remote sites.

### APPL (Application)

See *VTAM Application Program*.

### Application Agent

A Connect:Enterprise interface that allows the customization of Connect:Enterprise execution. Each application agent is driven by a user-defined set of rules. The rules can display system console messages, issue system console commands, execute programs, and submit jobs. Connect:Enterprise supports the following application agents: Console, End Of Batch, Logging, Scheduler, and Wake Up Terminate.

### Auto Connect

A Connect:Enterprise feature that allows host-initiated data communications to one or more remote sites. The host and remote sites may be connected using SNA, FTP, bisync manual dial, auto dial, or nonswitched lines. The Auto Connect session may be fully automated by time of day, or controlled with the \$\$CONNECT console command. Full reporting of Auto Connect activity is available.

### Auto Dial

Refers to the capability of the host computer to automatically dial the remote site to establish a connection on a switched line. The Auto Dial feature is usually generated for the Transmission Control Unit or front-end processor of the host site on a line-by-line basis.

## B

### Batch

A set of related data collected by or added to Connect:Enterprise and maintained on the VSAM Batch Files at the host.

### **Batch Number**

A unique 7-digit number assigned internally by Connect:Enterprise to each individual batch on the VSAM Batch Files. The number may be obtained by the \$\$DIRECTORY function or the offline utilities LIST function.

### **Batch Queue**

See *VBQ (VSAM Batch Queue)*.

### **Batch Security**

Optional Connect:Enterprise method of providing security for remote site access to the system. Mailbox IDs are assigned to remote sites and defined as valid at the host site. If Batch Security is used, remote sites must supply a valid ID as part of the \$\$ commands that access the Connect:Enterprise data files. (Formerly called ID Validation.)

### **Batch Status**

A set of flags maintained for each batch on the VSAM Batch Files. The Batch Status flags are displayed in the LIST offline utility report or the \$\$DIRECTORY output data. Some of the Batch Status indicators are incomplete batch, deleted batch, batch transmitted to remote site, and batch extracted at the host site.

### **Batch Type**

Used to indicate which batches to recall from Connect:Enterprise. Types include batches containing data received from remote sites and batches containing data to be transmitted.

### **Blank Compression**

A method of replacing strings of contiguous blanks with control characters indicating the number of blanks removed. Commonly used to shorten the amount of data sent over telecommunications lines. Connect:Enterprise uses standard 3780 blank compression techniques on BSC lines and standard SNA blank and character compression on SNA sessions.

### **Blank Truncation**

A method of dropping trailing blanks from the end of fixed length data records before sending the data over telecommunications lines. Used by Connect:Enterprise as an option to shorten the amount of data sent over telecommunications lines.

### **BSC (Binary Synchronous)**

A standard telecommunications line protocol used to transmit blocks of data over telecommunications lines between host computers and remote sites. Binary Synchronous (also known as bisync) allows a faster transmission rate than a start/stop protocol, because its ratio of data bits to checking bits is higher. This line protocol is used by Connect:Enterprise.

### **BTAM (Basic Telecommunications Access Method)**

A standard IBM access method used by Connect:Enterprise to read and write data over telecommunications lines to a variety of terminals and devices.

**BTAM ID Verification**

An optional BTAM feature that enables the exchange and verification of host site and remote site IDs. Available on switched lines only, the feature provides added security in a Connect:Enterprise system. Both the host site and the remote site must be capable of implementing the option. Connect:Enterprise allows the host site ID to be sent, the remote site ID to be received, or both IDs to be exchanged.

**C****Clear Control Channel (CCC)**

A command that enables Connect:Enterprise to negotiate a clear-text control channel after the user ID and password have been transmitted in encrypted format. The control channel remains in clear-text until the connection ends. All data and objects transferred between the client and server remain encrypted. Both ends of the connection must support the use of this command.

**Compression**

See *Blank Compression*.

**Connection ID**

The CICS definition that describes the remote system in terms of Netname (APPLID). The connection ID is a local name (within the local CICS only) that is used to define the remote partner system (Connect:Enterprise).

**Cross System Client Utility (CSCU)**

A Connect:Enterprise utility that enables you to use a subset of the offline utilities to access the VSAM batch and log files from a remote logical partitioning (LPAR), unlike offline utilities which must run from the same LPAR as the Connect:Enterprise VSAM File Server. CSCU control and output is similar to the offline utilities.

**D****Data Collection**

The process in which Connect:Enterprise collects data from remote sites and stores it in the VSAM Batch Files. Data Collection means data is input from a remote site to Connect:Enterprise at the host computer.

**Data Repository**

The component that transmits and collects data from BSC, FTP, and SNA sites. The repository handles all session activity and accepts service requests from the console, the user API, the ISPF interface, the CICS interface, and the Connect:Enterprise FTP server.

## Data Transmission

The process in which Connect:Enterprise transmits data from the VSAM Batch Files to remote sites. Data transmission means data is output from Connect:Enterprise at the host computer to the remote site.

## Directory

A formatted listing of control information for batches on the Connect:Enterprise VSAM Batch Files. It is obtained from the `$$DIRECTORY` command.

## Disconnect Interval

The number of seconds a session may be inactive before forcing session termination. This may differ for each remote site defined to Connect:Enterprise. This safety feature, which is implemented using the `DISCINTV` parameter, is used to reduce the use of resources by remote sites that have no current activity and to prevent an Auto Connect session from suspending if a remote site does not respond.

## EXTRACT Utility Model

A set of JCL statements and parameter (specification) data submitted by Connect:Enterprise CICS or ISPF interface to initiate execution of the Connect:Enterprise EXTRACT utility. The EXTRACT utility is used to retrieve batches from VSAM batch files to a sequential output file.

# F

## FMH (Function Management Header)

A standard SNA feature that allows a data stream to be sent to a specific destination and controls the way the data is presented at the destination. Connect:Enterprise supports FMH Type 1, a 6-character field sent at the start and the end of a data stream. This FMH selects the media used for the data, marks the beginning and end of a Connect:Enterprise batch, and further describes the format of the data.

## FTP (File Transfer Protocol)

An international standard for reading and writing files across a TCP/IP network.

## FTP Server

The capability of Connect:Enterprise to function as an FTP server. This enables remote FTP client sites to access, retrieve, and send data to the Connect:Enterprise batch queues through standard FTP commands.

# G

## GSKKYMAN

An IBM utility that is used to create and maintain the SSL key database.



## H

### Host

The main processing computer where Connect:Enterprise is running and where you send your data batches. Also referred to as the host site or host computer.

## I

### IRS (Inter-Record Separator)

A special character used to separate multiple records in a block of data being transmitted over a telecommunications line. Connect:Enterprise allows either X'1E' or X'1F' as the inter-record separator on BSC lines, and allows only X'1E' for SNA sessions. Also referred to as an IRS.

## J

### Job Entry Subsystem (JES)

A system facility for spooling, job queuing, and managing job-related data.

## L

### Leased Line

Refers to telecommunications lines on which connection is not established through a switched network. Connect:Enterprise Leased Line support is point-to-point and therefore allows data to be exchanged only between the host site and a single remote site. Leased Multipoint lines are not supported by BSC connections in Connect:Enterprise.

### Line ID

Uniquely identifies a BSC line that is accessed during Auto and Remote Connects. This is a BSC-only entry generated by a nonswitched M\$LINE or M\$LINEX macro in the User Assembly.

### List Name

The Auto Connect List Name defined in the Connect:Enterprise ODF.

### Log Facility

A Connect:Enterprise feature that provides file logging and full reporting for remote-initiated transactions. An additional option provides host system console log messages both for host-initiated and for remote-initiated connections and disconnections.

## **LOGOFF**

The process of ending a remote site session with a host site program such as Connect:Enterprise. A LOGOFF may be a text command or a control function from a remote device.

## **LOGON**

The process of establishing a session between a remote site and a host site program such as Connect:Enterprise. A LOGON may be automatic after a connection is established, or may be entered as a text command or a control function. In Connect:Enterprise, either the remote site or the host site may attempt to initiate the LOGON process.

## **Logon Mode Table**

A table defined to VTAM containing a set of entries that provide session parameters, or the rules for controlling SNA communications. The LOGON that attempts to establish a session causes access to this table to obtain the session rules.

## **LOGON Security**

An optional Connect:Enterprise/SNA method of providing security during a remote site's attempt to LOGON to Connect:Enterprise. The LUNAME (assigned to the remote site as part of the VTAM definition process) is provided to and validated by Connect:Enterprise when a LOGON is attempted.

## **LU (Logical Unit)**

A logical unit provides the port for user access to an SNA network. Each remote device that can establish a session with Connect:Enterprise is a logical unit.

## **LU1RJE (LU Type 1 RJE)**

A device emulating 3770, or a similar device or software package that uses Logical Unit Type 1 protocols and is used primarily for data transfer or RJE (Remote Job Entry) purposes. The devices typically have multiple I/O devices, such as printers, card readers, and storage devices. An operator console for messages or interactive use is often present.

# **M**

## **Mailbox ID**

The 1–8 character ID which defines batches in the VSAM Batch Files.

## **Mailbox Name**

The 8-character symbolic name used to identify individual Connect:Enterprise systems to the user interface.

## **Mailbox Password**

A security password used to control access to Connect:Enterprise systems.

**Mailbox User ID**

An 8-character field used to identify each user to Connect:Enterprise. In order for a user to access a Connect:Enterprise system, the User ID must be defined and assigned. The CICS and ISPF Interface panel displays the current user in the upper right corner.

**Manual Dial**

Refers to the method the host site uses to dial remote sites to establish a connection on a switched line. With Manual Dial, an operator at the host site must manually dial the telephone number of the remote site if the connection is initiated by the host site.

If the connection is initiated by the remote site, the manual dialing at the host is not used.

**Media**

An input/output device on a terminal, such as a printer, card reader, card punch, keyboard, display, or diskette. Commonly available on LU Type 1 RJE terminals, and supported by Connect:Enterprise/SNA.

**MLU (Multiple Logical Unit)**

A terminal designed to allow the operation of more than one session between a remote terminal and a host site such as Connect:Enterprise. A single terminal may actually appear as multiple devices, and may have concurrent inbound and outbound data streams active for each. Some 3770-type devices have this capability. Connect:Enterprise supports up to six MLU sessions per remote site.

**N****NCP (Network Control Program)**

The Network Control Program, generated by host site personnel, that controls the operations of a communications controller such as a 37x5.

**Non-Switched Line**

A telecommunications line on which connection is not established through a switched network. Sometimes referred to as a Leased Line.

**NPSI (Network Control Program Packet Switching Interface)**

An IBM licensed program that allows SNA users to communicate over packet switching data networks that have interfaces complying with CCITT Recommendation X.25. It allows SNA programs to communicate with SNA or non-SNA equipment over such networks.

## O

### **(ODF) Options Definition File**

A file containing Connect:Enterprise control records and keyword parameters that specify options in effect for the current execution of online Connect:Enterprise. The file contains options that control security, password, Auto Dial telephone numbers, SIGNON records, Auto Connect, SNA sites, and other system options.

### **Offline Utilities**

The Connect:Enterprise utilities used to access and maintain the data batches on the VSAM Batch Files. The offline utilities allow you to LIST control information for batches, ADD batches, EXTRACT batches, DELETE batches, ERASE batches, alter batch status flags (STATFLG), MOVE batches from one VBQ to another, and REPORT on session activity.

## P

### **Password**

See *Mailbox Password*.

### **PLU (Primary Logical Unit)**

In a particular session between two LUs, one LU adheres to a set of SNA-defined primary protocols and is known as the primary logical unit (PLU) for that session. The other LU adheres to a set of secondary protocols and is known as the secondary logical unit (SLU) for that session. More than one session can exist between two LUs. Multiple concurrent sessions between the same two LUs are referred to as parallel sessions. Not all LUs have parallel session capability.

### **Point-to-Point Line**

A telecommunications line connection that allows data exchange between two points on the connection, usually the host site and a remote site. When a dialed connection is established on a switched network, the connection is considered point-to-point. Leased lines where the remote site is a single station are also considered point-to-point.

## R

### **RDW (Record Descriptor Word)**

A 4-byte field used to define the length of variable length records within a data file. For batch data coming into Connect:Enterprise (ADD), the RDW may be removed or retained. For batch data sent from Connect:Enterprise (REQUEST) the RDW may be created or not created.

**Remote Name**

A 1–8 character name assigned to identify a remote site that may be contacted by the host site during an Auto Connect session. Also used to identify every remote site that can establish a session with Connect:Enterprise.

**Remote Site**

Any terminal, computer, or software that can connect with Connect:Enterprise in the host computer.

**REXX (Restructured Extended Executor) Language**

A general-purpose, procedural language for scripting end-user programs designed for IBM systems.

**RFC (Request for Comments)**

One of a series, begun in 1969, of numbered Internet informational documents and standards widely followed by commercial software and freeware in the Internet and UNIX communities.

## S

**Session**

A logical connection between Connect:Enterprise at the host site and another logical unit, such as a 3770 device. When a LOGON is completed between Connect:Enterprise and a remote site, they are said to be in session.

**SIGNON**

A special format data record sent by some remote BSC terminals designed to communicate with RJE software (such as JES or VSE POWER) in the host computer. The SIGNON record may be required by Connect:Enterprise provided Connect:Enterprise has been configured to do so when installed. The SIGNON format(s) used must also be specified at installation. A SIGNON is not required and not supported for SNA remote sites.

**SLU (Secondary Logical Unit)**

See *PLU (Primary Logical Unit)*.

**SNA (Systems Network Architecture)**

A set of rules, procedures, and structures for a communications network.

**Socket Number**

A two way connection identified by the unique combination of IP addresses and port numbers in a given connection. For example, the following combination illustrates the unique ID representing a complete socket: Client IPAddress/Port Number - Server IPAddress/Port Number.

## **SPLITCOUNT**

Specifies a 1–4 digit numeric count of records to be contained in an added batch, allowing you to split a large sequential input file into several smaller batches with the same batch identifiers. Sequential input records are read and added to the output batch until the SPLITCOUNT limit is reached. Connect:Enterprise then closes out the batch and begins a new batch with the same identifiers.

## **SSL (Secure Sockets Layer)**

A protocol for transmitting private documents over the Internet. SSL uses a private key to encrypt data that is transferred over the SSL connection.

## **Status Codes**

The status flag indicators for a batch. Codes include the following: D, deleted; T, transmitted; R, Requestable; E, Extracted; M, Multxmit (for a list of these codes, see information on VSAM Batch Status Flags in the *Connect:Enterprise for z/OS User's Guide* ).

## **Switched Line**

A telecommunications line on which connection is established over a switched (dialup) telephone line.

# **T**

## **TLS (Transport Layer Security)**

A protocol based on SSL 3.0 protocol specification and designed to provide privacy and data integrity between two communicating applications.

## **TRACE**

In Connect:Enterprise, the capability to create a snapshot dump of internal Connect:Enterprise control information for communications activity, User Exit calls, or VSAM Batch Files access.

## **Transparency**

A method of transmitting data over a telecommunications line wherein special line control characters embedded in the data are transparent and do not function in their normal capacity as line control characters. Transparency is used when non-text data (such as object modules or other binary data) must be sent over telecommunications lines. Connect:Enterprise supports both BSC transparency and SNA transparency.

## **Truncation**

See *Blank Truncation*.

## **\$TURNLINE\$**

An optional feature in Connect:Enterprise that provides for a limited conversational mode transmission. When a \$TURNLINE\$ record is encountered in data being sent to a remote site, the sender temporarily

stops sending and issues the proper BSC protocol to turn around the line and begin receiving. After all data is received, sending resumes with the record following \$TURNLINE\$.

## U

### User

See *Mailbox User ID*.

### User Assembly

A series of macros used to define a network of BSC lines to be used by Connect:Enterprise. The macros are generated by each user to define their requirements and input to the Assembler to create a module for use by Connect:Enterprise BSC connections. A User Assembly is not required by SNA connections.

### User Batch ID

A 1–64 character free-form batch identifier used to describe the contents of a batch of data on the Connect:Enterprise VSAM Batch Files.

### User Exits

A user-written program called by online Connect:Enterprise, offline utilities, and the CICS interface at appropriate times during the processing of a transaction. The user-supplied program can thereby alter the standard processing done by Connect:Enterprise. User Exits may be supplied to examine all input data from a remote site, to examine output data to a remote site, to provide unique security processing, or to examine and alter data in Connect:Enterprise \$\$ commands. No alteration of data is possible by a user exit in the offline utilities and the CICS interface processing.

### USS Table

A table defined to VTAM that provides conversion of character-coded LOGON or LOGOFF to field-formatted LOGON or LOGOFF. You may need to provide this table to VTAM to allow a remote site to establish and terminate SNA sessions with Connect:Enterprise.

## V

### VBQ (VSAM Batch Queue)

The Connect:Enterprise data set used for storing batches of data collected from remote sites during online Connect:Enterprise. These batches may be available for transmission to remote sites, and are always available for extraction at the host site. The VSAM Batch Queue may be defined as a single VSAM cluster or up to 20 VSAM clusters that are processed as a single repository for batch data. The VSAM Batch Queue contains multiple individual batches of data which can be accessed by their Mailbox ID.

### **VBQ Blocking**

A Connect:Enterprise feature that blocks multiple records or collection buffers into a single VBQ record for transmission. This improves transmission performance by reducing the disk I/O overhead.

### **VCF (VSAM Control File)**

The Connect:Enterprise data set that contains control information for batches stored on the VSAM Batch Queue.

### **VLF (VSAM Log File)**

The Connect:Enterprise data set that contains logged information on the progress of a Connect:Enterprise execution.

### **VPF (VSAM Pointer File)**

The Connect:Enterprise data set that contains control information for every file defined in the Connect:Enterprise system and locator information for every existing batch.

### **VSAM (Virtual Storage Access Method)**

A standard IBM access method for creating and maintaining data sets at the host. Used by Connect:Enterprise for the VSAM Batch Files.

### **VSAM Batch Files**

A term used for the group of up to 24 files used by the Connect:Enterprise system for storing and maintaining data. The VSAM Batch Files consist of the VSAM Control File, the VSAM Pointer File, the VSAM Batch Queue Files (up to 20), and the VSAM Log Files (up to 2).

### **VTAM (Virtual Telecommunications Access Method)**

An SNA access method used by Connect:Enterprise to receive and send data to a variety of SNA devices or application programs.

### **VTAM Application Program**

A program, such as Connect:Enterprise, that is defined to VTAM and can establish sessions with SNA devices or other VTAM application programs.

## **X**

### **Xmit once**

Specifies that the batch cannot be extracted and that it can be transmitted only one time. After a successful transmit, the batch is permanently locked.



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