

Connect:Enterprise® for z/OS

InterConnect Option User's Guide

Version 1.4

Connect:Enterprise for z/OS InterConnect Option User's Guide

Version 1.4

First Edition

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About InterConnect Option

This chapter provides an overview of Connect:Direct and Connect:Enterprise and describes how the InterConnect Option feature transfers data between Connect:Enterprise and Connect:Direct.

About Connect:Direct

Connect:Direct links technologies and moves information from mainframes to other mainframes and workstations. It manages high-performance transfers by providing process automation, checkpoint/restart, error recovery, and many more features. Connect:Direct provides these features for various communications protocols, hardware platforms, and operating systems.

About Connect:Enterprise

Connect:Enterprise provides seamless, enterprise-wide data communications. It operates independently of applications, platforms and protocols, and provides unattended, automated data batch transfer within and between companies.

Connect:Enterprise supports the standard protocols, including LU1, SNA LU6.2, BSC, FTP, and X.25, and provides open connections throughout the network to any host, client-server, or remote workstation.

About InterConnect Option

InterConnect Option performs the following tasks:

- ◆ Automatically and securely routes application-produced distribution files from a Connect:Direct node to a Connect:Enterprise system.
- ◆ Automatically distributes Connect:Enterprise batches to a Connect:Direct node.
- ◆ Provides notification of success or failure at each step of the process.

- ◆ Links Connect:Enterprise and Connect:Direct within a z/OS operating system, allowing all Connect:Direct platforms to be used as the source or destination nodes for a batch.
- ◆ Requires minimum modification to both Connect:Enterprise and Connect:Direct.
- ◆ Supports selection by full Connect:Enterprise batch, either through mailbox ID, batch ID, or both.
- ◆ Enforces both Connect:Direct and Connect:Enterprise security.

InterConnect Option Workflow

This section describes how InterConnect Option routes batches between Connect:Enterprise and Connect:Direct.

Routing Files from Connect:Direct to Connect:Enterprise

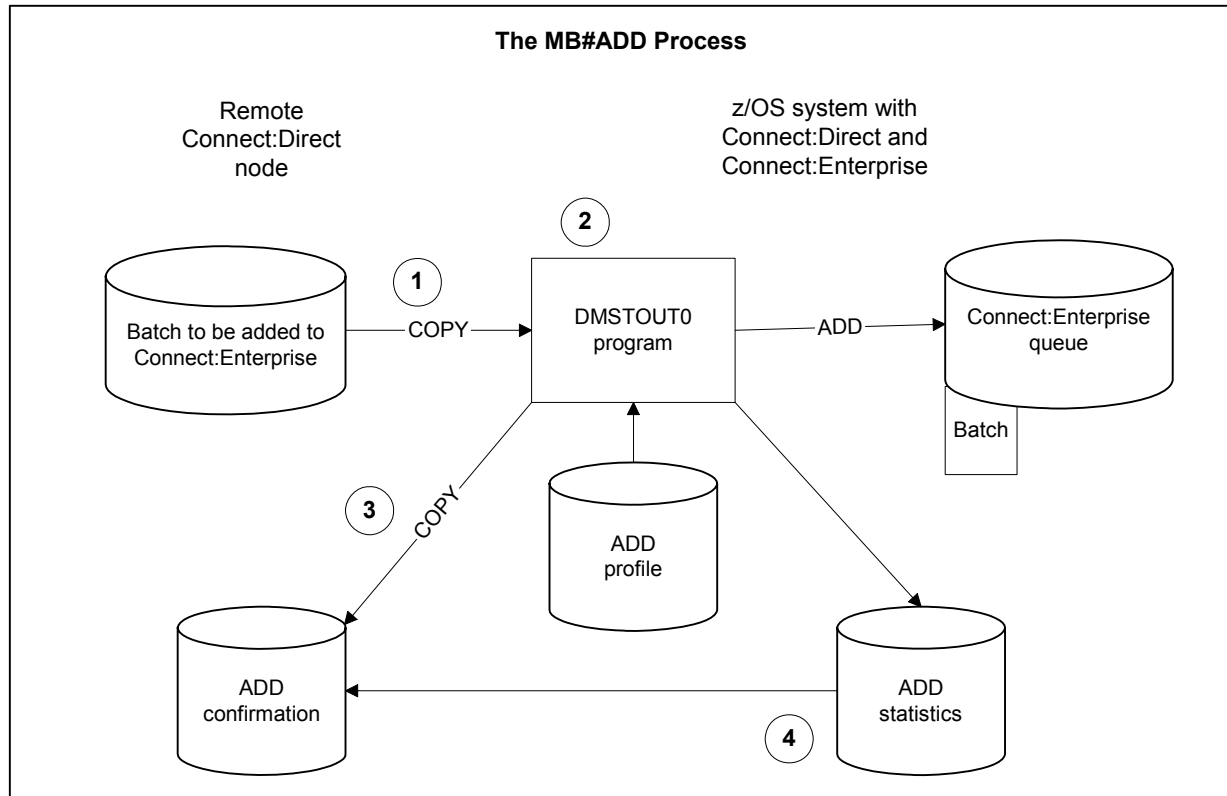
You issue a Connect:Direct SUBMIT command to route files or batches from a Connect:Direct node to a Connect:Enterprise distribution queue. You can issue this command through the batch interface (the SUBMIT command) or through the IUI (the Add Batch to Connect:Enterprise from File screen).

The InterConnect Option SUBMIT command uses a Process, based on the example Process MB#ADD, which performs the following steps:

1. Copies the file from the submitting node to a temporary data set on the z/OS node served by Connect:Enterprise.
2. Executes the Connect:Direct program, DMSTOUT0, that performs the following:
 - a. Reads the ADD Profile member specified in the InterConnect Option SUBMIT command and modifies it according to other SUBMIT command parameter values.
 - b. Invokes the Connect:Enterprise batch utility STOAPI00 which adds the batch to the Connect:Enterprise queue.
 - c. Passes the results data to the Connect:Direct statistics writer for inclusion in the Connect:Direct statistics file.
3. Confirms the request with the originating node.
4. Optionally sends the ADD results to the originating node.

If the Process is interrupted, Connect:Direct automatically requeues it and notifies you. You can resume or cancel the Process using Connect:Direct facilities. See the *Connect:Direct for z/OS User's Guide* for more information about Connect:Direct Process commands.

The following figure shows the MB#ADD Process.



The MB#ADD Process is in the sample library.

Routing Files from Connect:Enterprise to Connect:Direct

When Connect:Enterprise receives a batch, InterConnect Option immediately begins processing it for routing. ICO uses the End of Batch application agent to select and route batches from Connect:Enterprise to Connect:Direct.

Within the End of Batch application agent, a SELECT statement selects batches for routing. Batches can be selected by various criteria, including Batch ID, remote name, and batch status. The SELECT statement is associated with a RULE statement, which defines the action to perform on a selected batch. One of the possible actions is routing the selected batches to a Connect:Direct node for processing. The ROUTE instruction within the RULE definition controls this routing.

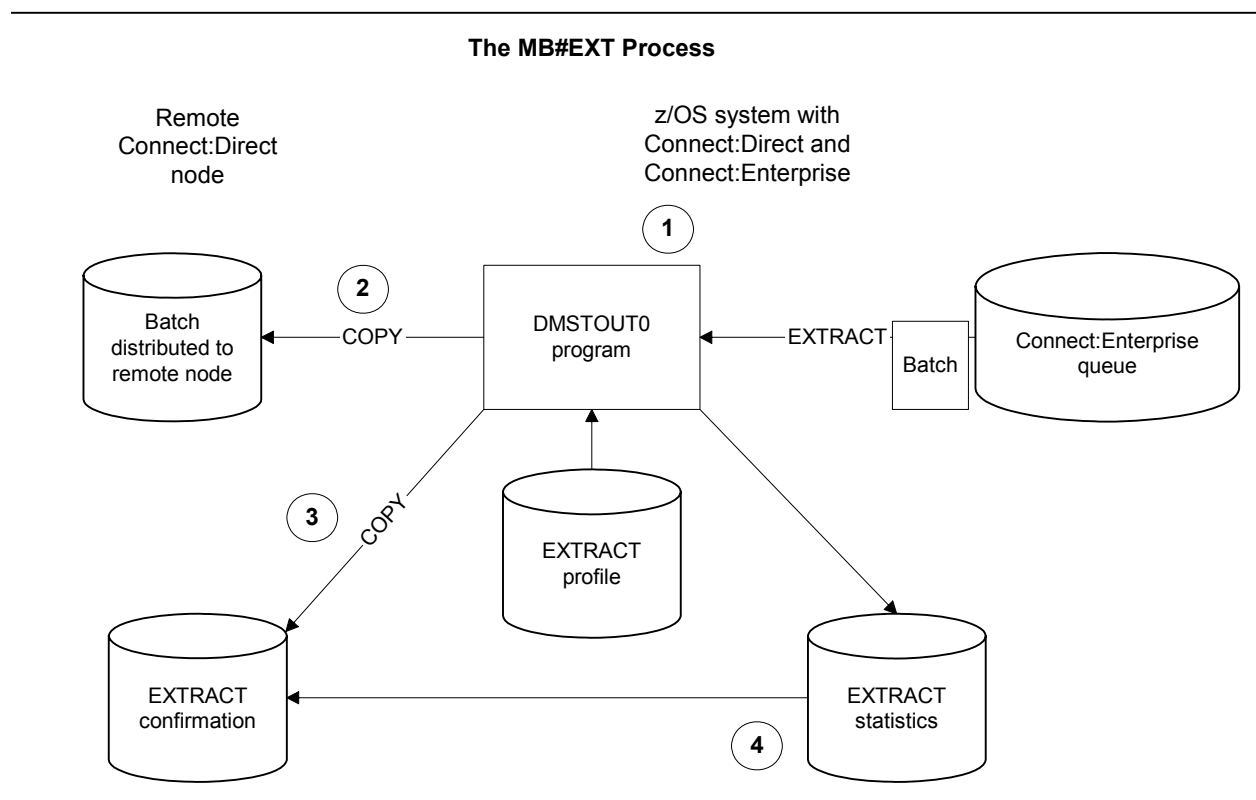
After the SELECT and RULE statements are processed, InterConnect Option creates SIGNON and SUBMIT commands from the information in the application agent. InterConnect Option then submits the SIGNON command to Connect:Direct. After a successful SIGNON, the InterConnect Option SUBMIT command is sent to the Connect:Direct node that will process the command (the primary node).

The InterConnect Option SUBMIT uses a Process, based on the sample Process MB#EXT, which performs the following:

1. Executes the Connect:Direct program called DMSTOUT0 which:
 - a. Reads the EXTRACT Profile member specified in the ROUTE instruction and modifies it according to instruction values.
 - b. Invokes the Connect:Enterprise batch utility STOAPI00 which extracts the batch from the Connect:Enterprise queue to a temporary data set.
 - c. Passes results data to the Connect:Direct statistics writer for inclusion in the Connect:Direct statistics database.
2. Copies the extracted file from the temporary data set to the remote node.
3. Confirms the request with the originating node.

If the Process is interrupted, Connect:Direct automatically requeues it and notifies you. You can resume or cancel the Process using the usual Connect:Direct facilities. See the *Connect:Direct for z/OS User's Guide* for more information about Connect:Direct Process commands.

The following figure shows the MB#EXT Process.



The MB#EXT Process is in the sample library.

Reporting Results

InterConnect Option copies the contents of the Connect:Enterprise STOAPI00 SYSPRINT file, which contains Process statistics, into the Connect:Direct Statistics file.

To specify the report format depending on the length of your User Batch ID, use the FORMAT=1|1X|2 parameter in the SYSIN file. For more information and to see sample report output, see the *Customizing the Layout of Reports* section in the *Connect:Direct for z/OS User's Guide*. To use the same report format for all ICO functions, specify the ICO_DEFAULT_REPORTS_FORMAT parameter in the ODF *OPTIONS record. For more information, see the upgrading section in the *Connect:Enterprise for z/OS Release Notes*.

Connect:Direct reports the STOAPI00 information as a contiguous block of records. The maximum report length is 200 lines. The Connect:Direct SELECT STATISTICS command retrieves the report. Use the sample JCL below or see the *Connect:Direct for z/OS User's Guide* to use the SELECT STATISTICS command.

Following is an example of an STOAPI00 SYSPRINT report for an ADD.

```

DATE: 9/01/1999 TIME: 17:02:05.4                      Connect:Enterprise CROSS LPAR UTILITY                      PAGE: 0001
CMA100 -- CONTROL RECORDS FOR THIS RUN:

=====>>>  ADD                                     <<<=====
=====>>>  ID=MBX220                                <<<=====
=====>>>  BATCHID='STOAPI00_ADD'                   <<<=====
=====>>>  LOG=YES                                    <<<=====
*** INPUT FILE CHARACTERISTICS:
RECORD FORMAT : F,B
RECORD SIZE   :      80
BLOCK SIZE    : 27,920
INFILE  DDNAME : SYS00169 DSN: USER01.STOAPI00.INFILE.T015749
LOCAL ACBNAME : MBIC0000
C:M ACB NAME  : SELDUB88

REQ  MAIL BOX ----- MAIL BOX ----- -BATCH- BYTES  INFILE  REQUESTS  BYTES  OUTFILE  RESPONSES --ELASPED TIMES--
TYPE -- ID -- ----- BATCH ID ----- - NUM - -- SENT -- -RECORDS-- - SENT - -- RCVD -- -RECORDS-- -- RCVD -- --IN SECONDS--

ADD  MBX220  STOAPI00_ADD                0000117    4,774    56      1      348      0      1      6.66    6.66

CMA127 -- FUNCTION SUCCESSFULLY PROCESSED. CONDITION CODE = 00.
DATE: 9/01/1999 TIME: 17:02:05.4                      Connect:Enterprise CROSS LPAR UTILITY                      PAGE: 0002
REQ  MAIL BOX ----- MAIL BOX ----- -BATCH- BYTES  INFILE  REQUESTS  BYTES  OUTFILE  RESPONSES --ELASPED TIMES--
TYPE -- ID -- ----- BATCH ID ----- - NUM - -- SENT -- -RECORDS-- - SENT - -- RCVD -- -RECORDS-- -- RCVD -- --IN SECONDS--

FINAL CNTS ADD:      1  EXTRACT:      0    4,774    56      1      348      0      1      6.66    6.66
CMA154 -- PROCESSING COMPLETE, HIGHEST CONDITION CODE = 00

```

STOAPI00 SYSPRINT Report Fields

The following table describes the fields on the report.

Data Type	Description
Req Type	The function request type; ADD in this case.
Mail Box ID	The 1–8 character Mailbox ID.
Mail Box Batch ID	The 1–24 character User Batch ID.
Batch Num	The unique 7-digit batch number assigned to the batch by Connect:Enterprise.

Data Type	Description
Bytes Sent	The number of bytes sent to Connect:Enterprise.
Infile Records	The number of records read from the input file by DMSTOUT0.
Requests Sent	The number of blocks in the batch.
Bytes Rcvd	The number of bytes received from Connect:Enterprise.
Outfile Records	The number of records received by Connect:Enterprise.
Responses Rcvd	The number of responses received from Connect:Enterprise.
Elapsed Time in Seconds	The number of seconds required to complete the function.

Process Statistics Macros

InterConnect Option statistics records are written to the Connect:Direct statistics writer. The statistic record macros that provide record layouts are located in the Connect:Direct SAMPLIB. The following table lists the macros:

Macro	Record Type	Description
DMFREPT	RE	Report record containing text line from SYSPRINT.
DMFREPT	LF	Log file records produced if LOG=YES is specified for ADD and EXTRACT operations. Note: If you use the LOGFILE DD records file for STOUTL post-processing in custom-written programs, modify the programs to reference the long Batch ID to accommodate 64-characters. For more information, see the information on the LOGFILE in the <i>Connect:Enterprise for z/OS User's Guide</i> .
DMFROEVT	RO	Report event record containing one record per report written.

Security Considerations

Connect:Direct security can be implemented in several ways. See the *Connect:Direct for z/OS Administration Guide* for information on this topic. It is important to know how Connect:Direct implemented security when implementing the InterConnect Option.

Processes initiated from Connect:Direct security are based on the SIGNON ID, which for z/OS TSO users is the TSO user identification. Users authorized to submit Connect:Direct Processes can submit them through InterConnect Option.

For Process initiated from Connect:Enterprise through the InterConnect Option, security is determined by the SIGNONUID found in the Connect:Enterprise ROUTE instruction and the way security is handled in Connect:Direct. Connect:Direct uses one of the following methods to implement security when initiating a Process using the InterConnect Option:

- ◆ If Connect:Direct uses AUTHFILE security, the AUTHFILE must contain a matching entry for the SIGNONUID and password found in the Connect:Enterprise ROUTE instruction.
- ◆ If Connect:Direct uses a stage one security exit, the Connect:Enterprise SIGNONUID parameter of the ROUTE instruction requires a valid security subsystem password be present to execute the Process under the SIGNONUID rather than the owner of the Connect:Enterprise started task.
- ◆ If Connect:Direct uses a stage two exit and no stage one exit, the Connect:Enterprise SIGNONUID parameter of the ROUTE instruction requires a password.

Connect:Enterprise security is based on the Mailbox ID (the name of the remote user) and is controlled through data set and batch access rights. Users with access rights to the batch data can submit it to Connect:Direct through InterConnect Option.

You can activate or deactivate security checking specifically for InterConnect Option (ICO) APPC LU6.2 connections using the ICOSECURE parameter in the *OPTIONS record of the Options Definitions File (see the *Connect:Enterprise for z/OS Administration Guide* for more information). If you do not specify a value for ICO, the ICOSECURE parameter inherits the same value in effect for MBXSECURE, which controls the security interface at a system-wide level. If you do specify a value for the ICOSECURE parameter, that value overrides the MBXSECURE setting. Depending on your system, you may also want to consider using the APISECURE or STLSECURE parameter. For a general discussion on security, see the *Connect:Enterprise for z/OS Administration Guide*. Connect:Enterprise encryption/decryption keys are specified in the Profile data set accessed by DMSTOUT0. You must secure access to the Profile data set with your security package.

About This Guide

The *Connect:Enterprise InterConnect Option for z/OS User's Guide* is for programmers and network operations staff who install and maintain the *Connect:Enterprise for z/OS* 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.

Connect:Enterprise for z/OS Documentation

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

Task Overview

The following table directs you to the information required to perform the Connect:Enterprise tasks documented in this guide:

Task	For More Information, See
Understanding Connect:Direct, Connect:Enterprise, and the InterConnect Option, including the InterConnect Option workflow, results reporting, and security considerations.	Chapter 1, <i>About InterConnect Option</i>
Setting up the InterConnect option.	Chapter 2, <i>Setting Up InterConnect Option</i> ,
Routing files or batches from a Connect:Direct node to a InterConnect Option distribution queue using the Connect:Direct SUBMIT command.	Chapter 3, <i>Moving Files from Connect:Direct to Connect:Enterprise</i>
Listing and changing the status of Connect:Enterprise for z/OS batches by using the InterConnect Option SUBMIT command.	Chapter 4, <i>Listing and Changing the Status of Connect:Enterprise Batches from Connect:Direct</i>
Creating the application agent to send files to Connect:Direct	Chapter 5, <i>Moving Batches from Connect:Enterprise to Connect:Direct</i>
Understanding InterConnect Option responses to data transfer requests.	Chapter 6, <i>Messages and Exception Handling</i>

Setting Up InterConnect Option

This chapter describes how to set up InterConnect Option. It contains the following information:

- ◆ Setup checklist
- ◆ Customizing the Processes and profiles

InterConnect Option modules are incorporated into Connect:Direct and Connect:Enterprise and are installed with those products. There is no separate InterConnect Option installation tape. However, you must set up InterConnect Option before you can use it.

Setup Checklist

The following checklist shows the steps required to set up InterConnect Option:

Step	Description	Reference	Completed
1	Create the ICO VTAM definitions	page 14	<input type="checkbox"/>
2	Modify Connect:Direct start-up JCL	page 15	<input type="checkbox"/>
3	Create a Connect:Enterprise End of Batch application agent	page 16	<input type="checkbox"/>
4	Modify Connect:Enterprise start-up JCL	page 16	<input type="checkbox"/>
5	Run the Rules Verification utility	page 17	<input type="checkbox"/>
6	Update the *OPTIONS section of the Options Definition File (ODF)	page 17	<input type="checkbox"/>
7	Build a Profile data set	page 18	<input type="checkbox"/>

Step	Description	Reference	Completed
8	Customize the Processes, profile data set, and application agent	page 20	<input type="checkbox"/>

Create the InterConnect Option VTAM Definitions

You must create a local VTAM APPLID for each concurrent InterConnect Option session you plan to run and one local VTAM Log Mode Table for all sessions. The following procedure describes how to do this:

1. Determine the number of concurrent InterConnect Option sessions required for your system.
2. Define a local VTAM APPLID for each concurrent InterConnect Option session: Specify the unique APPLID value for each Process or define a pool for all Processes. Each APPLID must have a unique name. For example, if you anticipate having five concurrent sessions, define five APPLIDs, each with a unique name.

To create a pool of VTAM APPLIDs that can be shared by all Processes, define each VTAM APPLID with a five-character name prefix (MBXLP for example) and append a three-digit number (starting with 000 and incrementing by one). The DMSTOUT0 program starts with the first defined name (MBXLP000) and searches for an APPLID not in use. Using this pooling technique, it is possible to create fewer definitions (only the maximum number of concurrent sessions).

Note: If an APPLID value is not five characters long, the DMSTOUT0 program assumes that a unique name is specified. If another Process is already using that APPLID, all later Processes fail until the APPLID becomes available.

The following example shows a VTAM APPLID definition where the APPLID value (ACBNAME) is MBXLP000:

```

MBXLP000  APPL ACBNAME=MBXLP000,          *
          AUTH=ACQ,                       *
          APPC=YES,                        *
          PARSESS=YES,                     *
          VPACING=7,                       *
          AUTOSSES=6,                      *
          DLOGMOD=TESTLU62,                *
          DMINWNL=3,                       *
          DMINWNR=3,                       *
          DRESPL=ALLOW,                    *
          DDRAINL=ALLOW,                   *
          DSESLIM=12,                      *
          MODETAB=MODAPPL

```

For a pool, duplicate the definition with MBXLP001, ...002, ...003, and so on.

- Define the local VTAM Log Mode Table for the sessions. The following example shows a VTAM Log Mode Table definition where the LOGMODE value is TESTLU62. This MODEENT can be found in Connect:Enterprise file, \$CE.EXAMPLE(MODEAPPC).

```

TESTLU62      MODEENT  LOGMODE=TESTLU62, FMPROF=X'13', TSPROF=X'07',          *
              SECPROT=X'B0', COMPROT=X'D0B1', RUSIZES=X'8989',              *
              PRIPROT=X'B0', PSERVIC=X'0602000000000000000000000300'
SNASVCMG      MODEENT  LOGMODE=SNASVCMG, FMPROF=X'13', TSPROF=X'07',          *
              SECPROT=X'B0', COMPROT=X'D0B1', RUSIZES=X'8585',              *
              PRIPROT=X'B0', PSERVIC=X'0602000000000000000000000300'
              MODEND
    
```

Modify Connect:Direct Start-up JCL

The Connect member of the \$CD.JCL library (shown below) contains the Connect:Direct start-up JCL. Change this JCL to:

- ◆ Reference the Connect:Enterprise LOADLIB that contains STOAPI00 in STEPLIB.

```

//JOBNAME     JOB      . . .
.
.
.
//CDITST     PROC  CDPREF=, PARMMEM=
//CDITST     EXEC  PGM=DMINIT, PARM='&CDPREF..PARMLIB(&PARMMEM)',
//           REGION=6144K
//STEPLIB    DD   DSN=&CDPREF..LINKLIB,
//           DISP=SHR
//           DD   DSN=$CEPREF..LOAD,           <=== ICO
//           DISP=SHR                           <=== ICO
//DMPUBLIB   DD   DSN=&CDPREF..PROCESS,
//           DISP=SHR
//SYSUDUMP   DD   SYSOUT=*
.
.
.
//           PEND
//*
//CDITST     EXEC  CDITST, CDPREF='$CD', PARMMEM=CDINT01
    
```

Make the following changes (shown in bold in the preceding example) to the Connect:Direct start-up JCL:

- ◆ Replace \$CD with your Connect:Direct high-level qualifier.
- ◆ Add the lines marked “ICO” and replace \$CEPREF with your Connect:Enterprise high-level qualifier.

Create a Connect:Enterprise End of Batch Application Agent

In Connect:Enterprise, the End of Batch application agent is invoked whenever online batch collection completes.

Within the End of Batch application agent, define a SELECT statement to select batches for processing. The SELECT statement points to a RULE statement that specifies what actions (instructions) to perform on the batch. Within the RULE statement, define a ROUTE instruction to route an ICO request to a Connect:Direct node for processing.

See Chapter 5, *Moving Batches from Connect:Enterprise to Connect:Direct*, for instructions on how to create the End of Batch application agent.

Modify Connect:Enterprise Start-up JCL

Use the ENTPRSI member in \$CE.EXAMPLE as the Connect:Enterprise start-up JCL. Change \$CDHLQ in this JCL to the Connect:Direct high-level qualifier. The modifications are shown in bold below.

```
//ENTPRS  PROC NAME=SRV1
//*ENTPRS  PROC NAME=SRV1,VERIFY=VERIFYONLY
//*****
//*      EXECUTE  (ICO) CONNECT:ENTERPRISE ONLINE
//*****
//*
//* STEP 1:   CREATE A NEW OPTIONS DEFINITION FILE
//*          (OPTIONAL)
//*
//GENOPT   EXEC  PGM=IEBGGENER
//SYSPRINT DD   SYSOUT=*
//SYSIN    DD   DUMMY
//SYSUT2   DD   DSN=ENTPRS.OPTFILE,DISP=SHR
//SYSUT1   DD   DATA,DLM=ZZ
*OPTIONS
...
...
...
ZZ
//*
//* STEP 2:   EXECUTE CONNECT:ENTERPRISE WITH ICO FUNCTION
//*          (REQUIRED)
//*
//ENTPRS   EXEC  PGM=STMAIN,REGION=7000K,TIME=1440,
//          PARM= '&NAME'
//*          PARM= '&NAME,&VERIFY'
//STEPLIB  DD   DSN=ENTPRS.LOAD,DISP=SHR
//*****
```

continued


```

/** THE FOLLOWING DD STATEMENTS ARE REQUIRED WHEN RUNNING
/** ICO (INTER-CONNECT OPTION).
/** THE NEXT DD STATEMENT BELOW IS A CONTINUATION OF STEPLIB.
/*******
//          DD      DSN=$CDHLQ.LINKLIB,DISP=SHR          /* ICO */
//DMPUBLIB DD      DSN=$CDHLQ.PROCESS,DISP=SHR         /* ICO */
//DMNETMAP DD      DSN=$CDHLQ.NETMAP,DISP=SHR          /* ICO */
//DMMSGFIL DD      DSN=$CDHLQ.MSGFILE,DISP=SHR         /* ICO */
//NDMCMD5  DD      SYSOUT=*                             /* ICO */
//NDMLOG   DD      SYSOUT=*                             /* ICO */
/**
//SYSABEND DD      SYSOUT=*
//DMPRINT  DD      SYSOUT=*
//SYSPRINT DD      SYSOUT=*
//LMAPOUT  DD      SYSOUT=*,DCB=BUFNO=1
/**
/**** NOTE : ALL OF THE VSAM FILES ARE DYNAMICALLY ALLOCATED
/****          AND JCL IS NOT NEEDED
/****
//OPTDEF   DD      DSN=ENTPRS.OPTFILE,DISP=SHR
//SNAPOUT  DD      DSN=ENTPRS.SNAPOUT,DISP=SHR
//BTSNAP   DD      DSN=ENTPRS.BTSNAP,DISP=SHR
//JESRDR   DD      SYSOUT=(*,INTRDR)
//ENVIRON  DD      DISP=SHR,DSN=ENTPRS.ENVIRON
//CEEDUMP  DD      SYSOUT=*,DCB=BUFNO=1
//RULES    DD      DISP=SHR,DSN=ENTPRS.RULES
//RULESJCL DD      DISP=SHR,DSN=ENTPRS.RULES.CNTL
//RULTRACE DD      DISP=SHR,DSN=ENTPRS.RULES.TRACE
/**

```

Run the Rules Verification Utility

Run the Rules Verification utility to ensure that the rule members you created in *Create a Connect:Enterprise End of Batch Application Agent* on page 16 are valid. For more information about the Rules Verification utility, refer to the *Connect:Enterprise for z/OS Application Agents and User Exits Guide*.

Update the *OPTIONS Section of the Options Definition File

Customize the Options Definition File (ODF) *OPTIONS section (DD name OPTDEF in the preceding figure) of the Connect:Enterprise start-up JCL as follows:

```

*OPTIONS
RULES=YES
MAXRP=nn
RULESEOB=membername

```

The following table describes the parameters:

Parameter	Description
RULES=YES NO	Activates application agent processing. RULESEOB, RULESLOG, or RULESWKT must also be specified. The End of Batch application agent is used for ICO processing. The default is NO.
MAXRP=nn	Specifies the maximum number of rules processor tasks that operate concurrently for application agent processing. Specify a number between 1 and 99. The default is 2.
RULESEOB=xxxxxxx	A 1–8 character RULE member name to be invoked whenever an online batch collection completes. It contains the information to route batch data from Connect:Enterprise to Connect:Direct.

Build a Profile Data Set

The \$hlq.PROFILE data set is allocated when \$cd.SAMPLIB(PROFILE) is used to create it for the InterConnect Option. Member \$cd.SAMPLIB(PROFILE) also copies the members SUBADD01, SUBADD02, SUBEXT01, SUBEXT02, SUBLIST01, and SUBSTA01 from the Process library to the Profile data set. These members store the control records that form the SYSIN file input to the Connect:Enterprise utility STOAPI00.

Data Set Name	DSORG	LRECL	BLK SIZE	RECFM	SPACE	DIR BLKS
PROFILE	PO	80	3120	FB	20	20

Both the ROUTE instruction in the End of Batch application agent and the SUBMIT command reference the Profile data set (PROFDSN) for the EXTRACT and ADD utilities, respectively.

The PROFILE members SUBADD01 and SUBEXT01 contain sample Profile ADD and EXTRACT records for use in your initial Profile data set members. After InterConnect Option is running, you should customize your Profile data set. See *Customize the Processes, Profile Data Set, and Application Agent* on page 20 for examples.

Test Connect:Direct to Connect:Enterprise

The following Connect:Direct SAMPLIB member DMBATICO contains a test file and JCL to test data movement from Connect:Direct to Connect:Enterprise. This test JCL performs a batch InterConnect Option SUBMIT of the test file.

```

//DMBATICO JOB (1111), 'PGMR', REGION=1M, MSGCLASS=X, CLASS=A
//DMBATC  EXEC  PGM=DMBATC, PARM=(YYSLYNN)
//STEPLIB DD   DISP=SHR, DSN=$CDHLQ.LINKLIB
//DMPUBLIB DD  DISP=SHR, DSN=$CDHLQ.PROCESS
//DMNETMAP DD  DISP=SHR, DSN=$CDHLQ.NETMAP
//DMMSGFIL DD  DISP=SHR, DSN=$CDHLQ.MSGFILE
//NDMCMD5 DD  SYSOUT=*
//DMPRINT  DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SYSIN    DD  *
    SIGNON USERID=(USER01) ESF=YES
    SUBMIT PROC=MB#ADD01
           SNODE=SOME.PC.NODE
           NEWNAME=FROM$PC
           &PROFDSN=' $CDHLQ.ICO.PROFILE'
           &PROFMEM=SUBADD02
           &FROMDSN=' C:\OUTGOING\REPORT\DAIly.123'
           &FILETYP=TEXT
           &BATCHID='DAILY STATUS'
           &RMTID=HQRJE,
           &MBNAME=MB01,
           &LOCAPPL=MBXLP,
           &MBAPPL=SBLDUB63,
           &LOGMODE=LOGMODE1,
           &USERID=USERID,
           &PASSWRD=PASS,
           &BATCHNO=,
    SIGNOFF
// *

```

Replace \$CDHLQ with your Connect:Direct high-level qualifier. Then, modify the following MB#ADD parameters and submit the JCL to test data movement from Connect:Direct to Connect:Enterprise.

Parameter	Description
SNODE	The secondary node to be used in the Process.
&PROFDSN	The data set name of the Profile data set.
&PROFMEM	The member name of the Profile in the Profile data set identified by &PROFDSN.
&FROMDSN	The data set name of the file to be added to Connect:Enterprise as a batch.
&FILETYP	The Connect:Direct TYPE of the source data set. This is the member name of the Type file containing the file attribute defaults used by Connect:Direct COPY statements. Examples are TEXT and BINARY.
&BATCHID	The Batch ID of the batch to be added. This parameter is optional.
&RMTID	The Mailbox ID of the batch to be added.

Test Connect:Enterprise to Connect:Direct

To test the Connect:Enterprise to Connect:Direct data movement, send a small batch to the Connect:Enterprise queue that matches the sample Application Agent ROUTE instruction entry. Verify through the messages received whether the transfer is successful.

Customize the Processes, Profile Data Set, and Application Agent

Customize the ICO Processes (MB#ADD01, MB#ADD02, MB#EXT01, MB#EXT02, MB#LIS01, and MB#STA01), the Profile data set, and the End of Batch application agent for your site needs. You can do this after InterConnect Option is operational.

Customize InterConnect Option Processes

Modify the ICO MB#ADD01, MB#ADD02, MB#EXT01, MB#EXT02, MB#LIS01, and MB#STA01 Process to supply installation default values as shown in the following table. The Processes are in the Connect:Direct Process library.

MB#ADD Processes

The MB#ADD Processes (MB#ADD01 and MB#ADD02) add Connect:Direct files to Connect:Enterprise. The difference between the Processes is that the MB#ADD01 Process does not COPY the STOAPI00 SYSPRINT file to the request originator, whereas MB#ADD02 does.

The parameters used by the MB#ADD Process are listed in the table on page 19. You can also change these parameters from the Add Batch to Connect:Enterprise from File screen in the Interactive User Interface (IUI).

MB#EXT Processes

The MB#EXT Processes (MB#EXT01, and MB#EXT02) extract Connect:Enterprise files to Connect:Direct. The difference between the two processes is that the MB#EXT01 Process does not COPY the STOAPI00 SYSPRINT file to the request originator, while the MB#EXT02 Process does.

The following customizable parameters are used by the MB#EXT Processes:

Parameter	Description
SNODE	The destination Connect:Direct node for a Connect:Enterprise EXTRACT.
&NOTIFY	The user ID to be notified of the Process progress.
&TODSN	The data set name of the file to be created from the extracted Connect:Enterprise batch.

Parameter	Description
&FILETYP	The Connect:Direct file TYPE of the target data set. This is the member name of the Type file containing the file attribute defaults used by Connect:Direct COPY statements. Examples are TEXT and BINARY.
&PROFDSN	The data set name of the profile data set.
&PROFMEM	The member name of the profile in the profile data set identified by &PROFDSN.
&BATCHNO	The batch number of the batch to be extracted from Connect:Enterprise.

MB#LIS01 Process

The MB#LIS01 Process lists Connect:Enterprise batches based on selection criteria. MB#LIS01 copies the STOAPI00 SYSPRINT file to the request originator. The following parameters, which you can customize, are used by the MB#LIS01 Process:

Parameter	Description
SNODE	The secondary node to be used in the Connect:Direct Process.
&NOTIFY	The user ID to be notified of the progress of the Process.
&PROFDSN	The data set name of the profile data set.
&PROFMEM	The member name of the profile in the profile data set identified by &PROFDSN.
&BATCHID	The ID of the batch to be listed. This parameter is optional. Note: Use this parameter or &BATCHNO
&BATCHNO	The number of the batch to be listed from Connect:Enterprise. This parameter is optional. Note: Use this parameter or &BATCHID
&RMTID	The Mailbox ID of the batch to be added.

MB#STA01 Process

The MB#STA01 Process changes status flags (STATFLG) in Connect:Enterprise batches based on selection criteria. MB#STA01 copies the STOAPI00 SYSPRINT file to the request originator. The following parameters, which you can customize, are used by the MB#STA01 Process:

Parameter	Description
SNODE	The secondary node to be used in the Connect:Direct Process.
&NOTIFY	The user ID to be notified of the progress of the Process.

Parameter	Description
&PROFDSN	The data set name of the profile data set.
&PROFMEM	The member name of the profile in the profile data set identified by &PROFDSN.
&BATCHID	The ID of the batch to be changed. This parameter is optional. Note: Use this parameter or &BATCHNO.
&BATCHNO	The number of the batch to be changed from Connect:Enterprise. This parameter is optional. Note: Use this parameter or &BATCHID.
&RMTID	The Mailbox ID of the batch to be changed.
&OFFFLAGS	The status flags to be turned off.
&ONFLGS	The status flags to be turned on.

Customize the Profile Data Set

After InterConnect Option is operational, customize your Profile data set members. InterConnect Option provides two variables, %RMTID and %BATCHID, for ADD, EXTRACT, LIST, and STATGLF profile records. DMSTOUT0 substitutes their values based on the parameter values of the submitted Processes.

In addition to these variables, you can use other parameters to fit your system needs. See the chapter on offline utilities in *Connect:Enterprise for z/OS User's Guide* for more information on these parameters.

ADD Profile Record

Each ADD Profile record must begin as follows:

```
ADD
ID=%RMTID
BATCHID=%BATCHID
```

The following example is a basic ADD profile entry with the additional LOG parameter added:

```
ADD
ID=%RMTID
BATCHID=%BATCHID
LOG=YES
```

The following example is an InterConnect Option profile entry that uses the \$\$ADD parameter for internal company transfers from Connect:Enterprise to remote nodes.

```
ADD
ID=%RMTID
BATCHID=%BATCHID
LOG=YES
USERRCD=1
$$ADD ID=IOUSR1 BATCHID='OUTGOING BATCH'
```

EXTRACT Profile Record

Each EXTRACT profile record must begin as follows:

```
EXTRACT
ID=%RMTID
BATCHID=%BATCHID
```

The following example is a basic EXTRACT profile entry with the additional DELETE AND TRANSP parameters:

```
EXTRACT
ID=%RMTID
BATCHID=%BATCHID
DELETE=NO
TRANSP=YES
```

LIST Profile Record

Each LIST profile record must begin as follows:

```
LIST
ID=%RMTID
BATCHID=%BATCHID or BATCHNUM=%BATCHNO
```

STATFLG Profile Record

Each STATFLG profile record must begin as follows:

```
STATFLG
ID=%RMTID
BATCHID=%BATCHID or BATCHNUM=%BATCHNO
OFFFLAGS=%OFFFLAGS
ONFLAGS=%ONFLAGS
```

Customize the End of Batch Application Agent

Customize the SELECT and RULE statements and the ROUTE instruction within the End of Batch application agent as necessary to route batch data from Connect:Enterprise to Connect:Direct. See Chapter 5, *Moving Batches from Connect:Enterprise to Connect:Direct*, for more information.

Moving Files from Connect:Direct to Connect:Enterprise

To route files or batches from a Connect:Direct node to a Connect:Enterprise distribution queue, you submit the request through the Connect:Direct SUBMIT command. You modify the command for InterConnect Option.

This chapter describes how to issue the InterConnect Option SUBMIT command through:

- ◆ The batch interface
- ◆ The IUI
- ◆ A remote Connect:Direct node, such as a Windows node or a UNIX node

The ICO SUBMIT Command

The InterConnect Option SUBMIT command allows you to submit a Process to Connect:Direct. The parameters specified on the SUBMIT command override any corresponding parameters in the Process itself.

The SUBMIT command uses a Process based on the example MB#ADD01 or MB#ADD02.

InterConnect Option SUBMIT Command Format

The InterConnect Option SUBMIT command has the following format and associated parameters. The required parameters and keywords appear in bold print. Default values are underlined>.

Parameters that begin with an ampersand (&) are variables that only are valid for the MB#ADD01, MB#ADD02, MB#EXT01, and MB#EXT02 Processes.

Label	Command	Parameters
(optional)	SUBmit	&PROFDSN = profile data set name &PROFMEM = profile member &LOCAPPL= local VTAM APPLID &MBAPPL= target VTAM APPLID &LOGMODE= logmode table name &MBNAME= target Connect:Enterprise name SNODE = from node &FROMDSN = data set name to be transmitted &FILETYP = file type &RMTID = mailbox ID &BATCHID = 'batchid' &CNFMFIL = confirmation file name &NOTIFY = %USER user ID PROC = MB#ADD01 MB#ADD02 MB#EXT01 NEWNAME = new procedure name PRTY = n CLASS= n CASE = Yes No PNODEID = (id, password, newpassword) SNODEID = (id, password, newpassword) &USERID= user ID &PASSWRD= password

InterConnect Option SUBMIT Command Parameters

The following table shows the InterConnect Option SUBMIT command parameters:

Parameter	Description
&PROFDSN = profile data set name	The data set name containing the Connect:Enterprise batch ADD profile members. The default is determined by your system administrator at installation. This is a required parameter. An example is: &profdsn='sys2.cecdio.profiles'
&PROFMEM = profile member	The member containing the batch ADD profile. This is a required parameter. An example is: &profmem=subadd01

Parameter	Description
&LOCAPPL	The local VTAM APPLID used by the InterConnect Utility to communicate with Connect:Enterprise. This parameter is required.
&MBAPPL	The VTAM APPLID of the target Connect:Enterprise as specified in the APPCAPPL ODF parameter. This parameter is required.
&LOGMODE	The log mode table name used for communication with Connect:Enterprise. This parameter is required.
&MBNAME	The name of the target Connect:Enterprise as specified in the MBXNAME ODF parameter. This parameter is optional.
The following parameters provide information about the batch data:	
SNODE = from node	The Connect:Direct node name where the file to be transmitted is located. For example: snode=588.02
&FROMDSN= data set to be transmitted	The name of the file or data set to be transmitted. For example: &fromdsn='c:samp1.txt'
&FILETYP = file type	The Connect:Direct file Type that provides the file's characteristics. The default is determined by your system administrator at installation and is usually TEXT. See the <i>Connect:Direct for z/OS Administration Guide</i> for more information on the Type file. An example is: &filetyp=text
&RMTID = Mailbox ID	The Mailbox ID of the batch to be added to the repository. For example: &rmtid=rmt001
&BATCHID = batch ID	The Batch ID of the batch to be added to the repository. For example: &batchid='pc.batch.add'
&CNFMFIL = confirmation file name	The fully qualified name of the file which will receive the confirmation SYSPRINT Connect:Enterprise file. This parameter is only valid for the MB#ADD02 and MB#EXT02 Processes. An example is: &cnfmfil='ico.confirm.file'
The following parameters provide information for the SUBMIT command. For more information about the SUBMIT parameters, see the <i>Connect:Direct for z/OS User's Guide</i> and the Connect:Direct Processes Web site at http://www.sterlingcommerce.com/documentation/processes/processhome.html .	
PROC = process name	The name of the Connect:Direct Process to be submitted. The default is determined by your system administrator at installation and is usually MB#ADD01.
NEWNAME = new process name	The optional alias name of the Connect:Direct Process to be submitted. This name appears in all notifications and statistics displays. An example is: &newname=pcbatches

Parameter	Description
PRTY = n	<p>The optional priority under which the procedure will be submitted. Enter a number from 1–15. If this keyword is omitted, no priority is specified.</p> <p>The PRTY parameter specifies the Process priority in the Connect:Direct Transmission Control Queue (TCQ). High numbers indicate high priorities; low numbers indicate low priorities. Connect:Direct uses this priority only for Process selection. It does not affect the priority during transmission. An example is:</p> <p>PRTY=9</p>
CLASS = n	<p>The optional class under which the procedure is submitted. It determines the node-to-node session on which a Connect:Direct Process executes. It is a number from 1–255. If omitted, no class is specified. An example is:</p> <p>CLASS=5</p>
&NOTIFY = %USER userid	<p>The USERID to be notified of the request status. The default is %USER, the user who submitted the Process.</p>
CASE = Yes No	<p>Specifies whether parameters associated with accounting data, user ID, password, and data set name in the command and in the Process are case sensitive. For example:</p> <p>CASE=YES</p>
<p>The following parameters provide information about the security override:</p>	
&USERID	<p>The Connect:Enterprise user identification. If the Connect:Enterprise security interface is active, provide a value known to Connect:Enterprise. This parameter is optional.</p>
&PASSWRD	<p>The Connect:Enterprise password. If the Connect:Enterprise security interface is active, provide a value known to Connect:Enterprise. This parameter is optional.</p>
PNODEID = (id, password, newpassword)	<p>The security user IDs and passwords at the PNODE.</p> <p>id—The 1–64 character security ID that Connect:Direct passes to a security exit for validations on the PNODE side of the Process.</p> <p>password—The 1–64 character current security password. The security exit uses this parameter to validate the current security password on the PNODE side of the Process.</p> <p>newpassword— The 1–64 character new security password. The security exit uses this parameter to change the current security password to the new security password.</p> <p>An example is:</p> <p>PNODEID=(Y4TB86,PURVEY)</p>

Parameter	Description
SNODEID = (id, password, newpassword)	<p>The security user IDs and passwords at the SNODE.</p> <p>id—The 1–64 character security ID that Connect:Direct passes to a security exit for validation on the SNODE side of the Process.</p> <p>password—The 1–64 character current security password. The security exit uses this parameter to validate the current security password on the SNODE side of the Process.</p> <p>newpassword—The 1–64 character new security password. The security exit uses this parameter to change the current security password to the new security password.</p> <p>An example is: SNODEID=(TSMITH,NEXIT5)</p>

Using SUBMIT in the Batch Interface

To issue the SUBMIT command through the Batch Interface, place the commands in the DMBATCH job stream and submit the job while Connect:Direct is running. See the *Test Connect:Direct to Connect:Enterprise* on page 18 for a DMBATCH sample. If you use the Extended Submit Facility (ESF), the server does not need to be running to execute SUBMIT commands.

The following example shows a SUBMIT command for the InterConnect Option Process named MB#ADD01. Connect:Direct retains a copy of the Process in the HOLD queue after it is released for execution.

```
SUBMIT  &PROFDSN = PROFILE.DATASET.NAME  -
        &PROFMEM = SUBADD01              -
        SNODE = FROM.NODE                 -
        &FROMDSN = FROM.DATASET.NAME     -
        &FILETYP = TEXT                   -
        PROC = MB#ADD01                   -
        &RMTID = RMT001                   -
        &BATCHID = 'BATCH.ID.RMT001'     -
        RETAIN = YES
```

See the *Connect:Direct for z/OS User's Guide* for more information on issuing batch commands.

Using SUBMIT in the IUI

Use the IUI to build and send InterConnect Option SUBMIT commands to the server. The SUBMIT command uses a procedure which is based on the example MB#ADD01.

To use SUBMIT through the IUI:

1. Select the SUBMIT A BATCH option (MB) from the Connect:Direct Primary Option menu.
2. Type the parameters to create an InterConnect Option SUBMIT command on the Add Batch to Connect:Enterprise from File panel, as shown in the following example:

```

NODE.NAME1          ADD BATCH TO Connect:Enterprise for z/OS FROM FILE
CMD==>                                                     mm.ss
                                                           mm.dd.yyyy
                                                           yyyy.jjj

BATCH ADD COMMAND PROFILE:
  DATA SET NAME    ==> ICO.PROFLIB
  MEMBER NAME      ==> SUBADD01          (IF PARTITIONED)

BATCH DATA:
  FROM NODE        ==> NODE.NAME1____ (WHERE FILE RESIDES)
  DATA SET/FILENAME ==> ICO.LIB(XX)
  DATA SET TYPE   ==> TEXT____
  ASSIGN MAILBOX ID ==> TESTICO
  ASSIGN USER BATCH ID ==> DMTEST_____

SUBMIT PARAMETERS:
  PROCESS NAME     ==> MB#ADD01          LOCAL APPLID      ==> MBXLP
  NEWNAME (ALIAS) ==> _____        C:E NAME         ==> MB01____
  PRIORITY        ==> ____ (0-15)       C:E APPLID      ==> APPLID02
  CLASS           ==> ____ (0-255)     C:E LOG MODE TABLE ==> TESTLU62
  NOTIFY         ==> _____        C:E USERID     ==> USER____
  SECURITY OVERRIDE ==> N (Y,N)         C:E PASSWORD    ==> PASS____

DO YOU WANT VALUES FOR THIS PROCESS TO BE CASE SENSITIVE? ==> YES

```

The parameters which you supply are saved in your TSO/ISPF profile and reappear each time with their previous values. Parameter values are described on page 26. Press PF1 to display the Help for parameter values.

3. If you type **Y** in the Security Override field, the Security Override Panel is displayed.

```

node.name          Connect:Direct SECURITY OVERRIDE          HH:MM
CMD==>                                                     YY/MM/DD
                                                           YY.DDD

PRIMARY NODE:

  SECURITY USERID: _____
  PASSWORD:
  NEW PASS:

SECONDARY NODE:

  SECURITY USERID: _____
  PASSWORD:
  NEW PASS:

```

4. Type all required information and press **Enter** to submit the Process.

Using SUBMIT from a Remote Node

When submitting a file from a remote node, use the SUBMIT within a Process capability. Create a Process which submits the MB#ADD01 or MB#ADD02 Process.

After your request to add a batch from the remote node to the Connect:Enterprise queue finishes, the results can be routed to the initiator as the STOUTL SYSPRINT report, if you use Process MB#ADD02. The &CNFMFIL parameter in the SUBMIT command indicates the name of the report file. See the *Reporting Results* on page 9 for a sample of this report.

For more information on the SUBMIT command for the remote node, see the Connect:Direct Processes Web site at

<http://www.sterlingcommerce.com/documentation/processes/processhome.html>.

Listing and Changing the Status of Connect:Enterprise Batches from Connect:Direct

You can list Connect:Enterprise batches and change the status of batches by using InterConnect Option SUBMIT command parameters, the LIS and STA profile members.

This chapter describes how to perform these functions by issuing the ICO SUBMIT command via the batch interface.

The ICO SUBMIT Command

The InterConnect Option SUBMIT command allows you to submit a Process to Connect:Direct. The parameters specified on the SUBMIT command override any corresponding parameters in the Process itself.

The SUBMIT command uses a Process based on the example MB#LIS01 to list batches or MB#STA01 to change their status.

InterConnect Option SUBMIT Command Format

The InterConnect Option SUBMIT command has the following format and associated parameters. The required parameters and keywords appear in bold print. Default values are underlined. Parameters that begin with an ampersand (&) are variables that are valid for only the MB#LIS01 and MB#STA01 Processes.

MB#LIS01 produces a formatted report of all batches in the VSAM batch files that meet the selection criteria based on the information in the SUBLIS01 profile.

MB#STA01 changes the batch status flags, which identify batch characteristics, in the VPF and VCF files. Batches are selected based on criteria in the SUBSTA01 profile. All Connect:Direct parameters are listed first followed by the Connect:Enterprise variables.

Label	Command	Parameters
(optional)	SUBmit	PROC = MB#LIS01 MB#STA01 SNODE = from node PNODEID = (id, password, newpassword) SNODEID = (id, password, newpassword) NEWNAME = new procedure name PRTY = n CLASS= n CASE = Yes No &PROFDSN = profile data set name &PROFMEM = profile member &LOCAPPL= local VTAM APPLID &MBAPPL= target VTAM APPLID &LOGMODE= logmode table name &MBNAME= target Connect:Enterprise name &RMTID = mailbox ID &BATCHID = 'batchid' &CNFMFIL = confirmation file name &NOTIFY = %USER user ID &USERID= user ID &PASSWRD= password &ONFLAGS = D E M R T &OFFFLAGS = D E M R T

InterConnect Option SUBMIT Command Parameters

The following table shows the InterConnect Option SUBMIT command parameters relevant to listing batches or changing batch status flags and are grouped by the nature of the parameters:

Parameter	Description
The following parameters provide general system information.	
&PROFDSN = profile data set name	Required. Specifies the data set name containing the Connect:Enterprise batch LIS or STA profile members. The default is determined by your system administrator at installation. An example is: &profdsn='sys2.cecdio.profiles'

Parameter	Description
&PROFMEM = profile member	Required. Specifies the member containing the batch LIS or STA profile. An example is: &profmem=sublis01 or substa01
&LOCAPPL	Required. Specifies the local VTAM APPLID used by the InterConnect Utility to communicate with Connect:Enterprise.
&MBAPPL	Required. Specifies the VTAM APPLID of the target Connect:Enterprise as specified in the APPCAPPL ODF parameter.
&LOGMODE	Required. Specifies the log mode table name used for communication with Connect:Enterprise.
&MBNAME	Specifies the name of the target Connect:Enterprise as specified in the MBXNAME ODF parameter.
The following parameters provide information about the batch data:	
SNODE = from node	Specifies the secondary node used in this Process. Generally, this should run as PNODE = SNODE.
&RMTID = Mailbox ID	Specifies the Mailbox ID of the batch you wish to list or whose status you want to change. For example: &rmtid=rmt001
&BATCHID = batch ID	Specifies the ID of the batch you wish to list or whose status you want to change. For example: &batchid='pc.batch.add'
&CNFMFIL = confirmation file name	Specifies the fully qualified name of the file which will receive the confirmation SYSPRINT Connect:Enterprise file. An example is: &cnfmfil='ico.confirm.file'
The following parameters provide information for the SUBMIT command. For more information about the SUBMIT parameters, see the <i>Connect:Direct for z/OS User's Guide</i> .	
PROC = process name	Specifies the name of the Connect:Direct Process to be submitted. MB#LIS01 Produces a report of all batches in the VSAM batch files, which meet selection criteria in the SUBLIS01 profile. MB#STA01 Changes the batch status flags in the VPF and VCF Files, which meet selection criteria in the SUBSTA01 profile.
NEWNAME = new process name	Specifies the alias name of the Connect:Direct Process to be submitted. This name appears in all notifications and statistics displays. An example is: &newname=pcbatches
PRTY = n	Specifies the priority (a number from 1–15) under which the Process is submitted. If this keyword is omitted, no priority is specified. The PRTY parameter specifies the Process priority in the Connect:Direct Transmission Control Queue (TCQ). High numbers indicate high priorities; low numbers indicate low priorities. Connect:Direct uses this priority only for Process selection. It does not affect the priority during transmission. An example is: PRTY=9

Parameter	Description
CLASS = n	Specifies the class (a number from 1–255) under which the Process is submitted. It determines the node-to-node session on which a Connect:Direct Process executes. If omitted, no class is specified. An example is: CLASS=5
&NOTIFY = %USER userid	Specifies the USERID to be notified of the request status. The default is %USER, the user who submitted the Process.
CASE = Yes No	Specifies whether parameters associated with accounting data, user ID, password, and data set name in the command and in the Process are case sensitive. For example: CASE=YES
&OFFFLAGS	Specifies which batch status flags are turned off for a selected batch. Specify any or all, separated by commas. D—The batch is no longer flagged for deletion. E—The batch was not extracted from the VSAM batch files. M—The batch is not available for multiple transmission. R—The batch is not requestable by a remote site. T—The batch was not transmitted to a remote site. Note: You must specify either &ONFLAGS or &OFFFLAGS. Both ONFLAGS and OFFFLAGS can be used in the same command. If both are used, the flags are processed in the order specified in the input control records. If you turn on the 'M' (MULTXMIT) flag, the 'R' (REQUESTABLE) flag is automatically turned on. If you turn off the 'R' (REQUESTABLE) flag, the 'M' (MULTXMIT) flag is automatically turned off.
&ONFLAGS	Specifies which batch status flags are turned on for a selected batch. Specify any or all, separated by commas. D—The batch is flagged for deletion. E—The batch was extracted from the VSAM batch files. M—The batch is available for multiple transmission to any remote site. R —A remote site can request the batch. T —The batch was transmitted to a remote site
The following parameters provide information about the security override:	
&USERID	Specifies the Connect:Enterprise user identification. If the Connect:Enterprise security interface is active, provide a value known to Connect:Enterprise.
&PASSWRD	Specifies the Connect:Enterprise password. If the Connect:Enterprise security interface is active, provide a value known to Connect:Enterprise. This parameter is optional.

Parameter	Description
PNODEID = (id, password, newpassword)	<p>Specifies the security user IDs and passwords at the PNODE.</p> <ul style="list-style-type: none"> id—The 1–64 character security ID that Connect:Direct passes to a security exit for validations on the PNODE side of the Process. password—The 1–64 character current security password. The security exit uses this parameter to validate the current security password on the PNODE side of the Process. newpassword—The 1–64 character new security password. The security exit uses this parameter to change the current security password to the new security password. <p>An example is: PNODEID=(Y4TB86,PURVEY)</p>
SNODEID = (id, password, newpassword)	<p>Specifies the security user IDs and passwords at the SNODE.</p> <ul style="list-style-type: none"> id—The 1–64 character security ID that Connect:Direct passes to a security exit for validation on the SNODE side of the Process. password—The 1–64 character current security password. The security exit uses this parameter to validate the current security password on the SNODE side of the Process. newpassword—The 1–64 character new security password. The security exit uses this parameter to change the current security password to the new security password. <p>An example is: SNODEID=(TSMITH,NEXIT5)</p>

Using SUBMIT in the Batch Interface

To issue the SUBMIT command through the Batch Interface, place the commands in the DMBATCH job stream and submit the job while Connect:Direct is running. See the *Test Connect:Direct to Connect:Enterprise* on page 18 for a DMBATCH sample. If you use the Extended Submit Facility (ESF), the server does not need to be running to execute SUBMIT commands.

The following example shows a SUBMIT command for the InterConnect Option Process named MB#LIS01. This Process produces a report that lists all batches for Mailbox ID RMT001 with a Batch ID, 'BATCH.ID.RMT001'.

```
SUBMIT PROC = MB#LIS01           -
      SNODE = &PNODE             -
      &PROFDSN = PROFILE.DATASET.NAME -
      &PROFMEM = SUBLIS01        -
      &PNODE = %PNODE            -
      &RMTID = RMT001           -
      &BATCHID = 'BATCH.ID.RMT001'
```

The next example shows a SUBMIT command for the InterConnect Option Process named MB#STA01. This Process turns on the M batch status flag, which makes the VPF and VCF files

that match the selection criteria in the SUBSTA01 profile, available for multiple transmission to any remote site.

```
SUBMIT PROC = MB#LIS01 -
        SNODE = &PNODE -
        &PROFDSN = PROFILE.DATASET.NAME -
        &PROFMEM = SUBSTA01 -
        &PNODE = %PNODE -
        &RMTID = RMT001 -
        &BATCHID = 'BATCH.ID.RMT001' -
        &ONFLAGS = M
```

Connect:Direct retains a copy of each Process in the HOLD queue after it is released for execution. See the *Connect:Direct for z/OS User's Guide* for more information on issuing batch commands.

Moving Batches from Connect:Enterprise to Connect:Direct

Batches to be sent to Connect:Direct are submitted automatically as they arrive in Connect:Enterprise. The submission is controlled by the Connect:Enterprise End of Batch application agent.

This chapter describes how to create the application agent to send files to Connect:Direct. You should be thoroughly familiar with application agents before attempting this. See the *Connect:Enterprise for z/OS Application Agents and User Exits Guide* for more information.

The End of Batch Application Agent

In Connect:Enterprise, the End of Batch application agent is invoked whenever online batch collection finishes. You can also manually invoke this agent with the \$\$INVOKE operator command.

Within the End of Batch application agent, you define a SELECT statement that selects batches for processing. The SELECT statement points to a RULE statement that specifies what actions (instructions) to perform on the batch. One possible action is routing an ICO request to a Connect:Direct node for processing. This particular action is defined by the ROUTE instruction.

The following sections describe the SELECT, RULE, and ROUTE definitions.

The SELECT Statement

The SELECT statement selects batches for extraction. Use the following parameters to specify batch selection criteria. You must specify at least one parameter for each SELECT statement.

Refer to the *Connect:Enterprise for z/OS Application Agents and User Exits Guide* for descriptions of the SELECT statement parameters.

The RULE Statement

The RULE statement defines a specific rule and associated instructions to execute for a SELECT statement.

```
RULE      NAME=xxxxxxxx
```

The NAME parameter specifies the unique 1–8 character rule name.

The RULE statement is followed by one or more instruction definitions. Each instruction defines a specific action to perform. InterConnect Option uses the ROUTE instruction to send Connect:Enterprise batches to Connect:Direct.

See the *Connect:Enterprise for z/OS Application Agents and User Exits Guide* for descriptions of all RULE instructions.

ROUTE Instruction

The ROUTE instruction tells Connect:Enterprise to sign on to the Connect:Direct node, submit a Process to Connect:Direct, and sign off from the Connect:Direct node. The ROUTE instruction is valid for the End of Batch rule type.

ROUTE Instruction Format

The following example illustrates the ROUTE instruction format. Default values for parameters and subparameters are underlined>.

```
ROUTE PROC=membername
  PROCDSN='filename[ (membername)]',
  PNODE='primary_nodename',
  PNODEID=(userid,password),
  SNODE='secondary_nodename',
  SNODEID=(userid,password),
  TODSN='filename[ (membername)]',
  FTYPE=filetype,
  PROFDSN='filename[ (membername)]',
  NETMAP='filename[ (membername)]',
  NEWNAME='alias_process_name',
  PRTY=nn,
  CNFMFIL='filename[ (membername)]'
  CLASS=nnn,
  CASE=YES|NO,
  NOTIFY=userid|%USER,
  SIGNONUID=(userid,password),
  LOCAPPL=APPLID_prefix,
  LOGMODE=logmode,
  MBAPPL=APPC_APPL_ID,
  BUFSIZE=nnnnn,
  MAILBOXUID=(userid,password),
  TRANSPORT=SNA|TCP, nnnnn, nnn.nnn.nnn.nnn
  ERROR=CONTINUE|QUIT
```


If a value needs to maintain lowercase, enclose the characters in lowercase within single quotes and set the keyword, CASE, to YES. The following format example illustrates how to specify lowercase values.

```
ROUTE PROC=membername
...
  PNODEID=('userid','password')
  SNODEID=('userid','password')
  SIGNONUID=('userid','password')
  CASE=YES
...
```

ROUTE Instruction Parameters

The following table describes the ROUTE instruction parameters:

Parameter	Definition
PROC=membername	Specifies the member name that contains the Connect:Direct Process to submit for the EXTRACT (the MB#EXT Process). The Process member resides in the //DMPUBLIB DD data set allocated by Connect:Enterprise. Note: You must specify either this parameter or the PROCDSN parameter, but not both.
PROCDSN=filename[(membername)]	Specifies the name of a sequential data set or a member of a partitioned data set containing the Connect:Direct Process to submit for the EXTRACT. This data set is dynamically allocated when the ROUTE instruction is executed. Note: You must specify either this parameter or the PROC parameter, but not both.
PNODE=primary_nodename	Optional. The 1–16 character Connect:Direct node name where the SUBMIT Process is submitted (the primary node). If you omit this parameter, the default is the Connect:Direct node defined as the local node in the DMNETMAP DD data set allocated in the Connect:Enterprise JCL. Either the DMNETMAP DD statement must point to a valid NETMAP data set or you must specify the NETMAP parameter. Note: Connect:Enterprise must have access to the Connect:Direct NETMAP data set.
PNODEID=(userid,password)	Optional. Specifies the security information used to sign onto the primary node, if required. It consists of the user ID, followed by the password. Enclosing the ID and password in single quotation marks enforces lowercase values, for example, PNODEID=('userid','password').
SNODE=secondary_nodename	Optional. Specifies the 1–16 character secondary node to use in the SUBMIT Process. This is usually the Connect:Direct node where the batch is sent.

Parameter	Definition
SNODEID=(userid,password)	Optional. The security information to sign onto the secondary node, if required. It consists of the user ID, followed by the password. Enclosing the ID and password in single quotation marks enforces lowercase values, for example, SNODEID=('userid','password').
TODSN=filename[(membername)]	Required. Specifies the name to assign to the file created on the Connect:Direct node. The name must follow Connect:Direct file naming conventions. You can use symbolic values in the file name. Connect:Enterprise replaces the strings in the file name with the actual values. For a list of valid symbolic values, see <i>Connect:Enterprise for z/OS Application Agents and User Exits Guide</i> .
FTYPE=file type	Optional. Specifies the file type parameter for the file created on the Connect:Direct node. See the <i>Connect:Direct for z/OS Administration Guide</i> for valid file types.
PROFDSN=filename[(membername)]	Optional. Specifies the data set and member name of the EXTRACT profile that Connect:Direct uses to extract the batch from Connect:Enterprise. Only Connect:Direct accesses this data set. You do not have to allocate it to the Connect:Enterprise address space.
NETMAP=filename[(membername)]	The name of the Connect:Direct NETMAP to use. This parameter enables you to use different NETMAPS for different ROUTE instructions. Note: If a DMNETMAP DD statement is not specified in the Connect:Enterprise JCL, this parameter is required; otherwise, it is optional.
NEWNAME=alias_process_name	Optional. A Process alias used on all displays and reports of the submitted Process.
PRTY=nn	Optional. Specifies the 1–2 digit priority of the SUBMIT command. Specify a number from 1–15. If you omit this keyword, no priority is specified. This parameter specifies the Process priority in the Connect:Direct Transmission Control Queue. The higher the number the higher the priority. Connect:Direct uses this priority only for Process selection. It does not affect the priority during transmission.
CNFMFIL='filename[(membername)]'	Provides the fully qualified name of the file which receives the confirmation SYSPRINT (Connect:Enterprise offline REPORTS DD file).
CLASS=nnn	Optional. Specifies the 1–3 digit CLASS that Connect:Direct uses to select a node-to-node session. Specify a number from 1–255.

Parameter	Definition
CASE=YES <u>NO</u>	Optional. Passed to the Connect:Direct Process. Specifies whether parameters associated with accounting data, user ID, password and data set names in the Connect:Direct SUBMIT command and in the PROCESS are case sensitive. The valid values are: YES = Parameters are case sensitive. <u>NO</u> = Parameters are not case sensitive. This is the default.
NOTIFY=userid %USER	Optional. Specifies the user ID to notify of the request status. Valid values are: userid = Notifies the specified user ID to notify . %USER = Notifies the user who submitted the Process.
SIGNONUID=(userid,password)	Optional. Specifies the user ID and password to sign onto Connect:Direct. Each value has a maximum length of 64 characters. Enclosing the ID and password in single quotation marks enforces lowercase values, for example, SIGNONUID=('userid','password').
LOCAPPL=APPLID_prefix	Optional. Specifies the APPLID prefix that the API uses to sign onto Connect:Enterprise.
LOGMODE=logmode	Optional. Specifies the logmode.
MBAPPL=APPC_APPL_ID	Optional. Specifies the APPC APPLID that the API signs on to.
BUFSIZE=nnnnn	Optional. Specifies the VTAM buffer size.
MAILBOXUID=(userid,password)	Optional. Specifies the user ID and password to use to sign onto Connect:Enterprise.
TRANSPORT=SNA TCP,nnnnn,nnn.nnn.nnn.nnn	Optional. Specifies the protocol to use to sign onto Connect:Direct. The valid values are: SNA = Use SNA protocol. TCP = Use TCP protocol. If you use TCP, you must also specify the following subparameters: ◆ nnnnn = The port that the Connect:Direct TCP.API is listening on. ◆ nnn.nnn.nnn.nnn = The IP address of the open API port.
ERROR= <u>CONTINUE</u> QUIT	Optional. Indicates the action for Connect:Enterprise to take if the ROUTE instruction is not successfully issued. Valid values are: CONTINUE = specifies that the next instruction executes. QUIT = specifies that no subsequent instructions execute.

Resolving Route Instruction Parameters When Communicating with Connect:Direct

When communicating with Connect:Direct, you control the value of certain variables sent from Connect:Enterprise using the ROUTE instruction parameters listed in the following table. Column

one contains the ROUTE instruction parameter and column two lists the resulting text string that is sent to Connect:Direct as part of the SIGNON and SUBMIT commands.

Parameter	Keyword=<i>value</i> string used by Connect:Direct
NETMAP='filename[(member-name)]'	NETMAP=filename[(member-name)]
SIGNONUID=(userid,password)	USERID=(userid,password)
TRANSPORT=SNA TCP,nnnnn,nnn,nnn,nnn,nnn	TRANSPORT=SNA TCP COMADDR=nnnnn,nnn,nnn,nnn,nnn
PROC=member-name	PROC=member-name
PROCDSN='filename[(member-name)]'	DSN=filename[(member-name)]
PNODE=primary-nodename	PNODE=primary-nodename
PNODEID=(userid,password)	PNODEID=(userid,password)
SNODE=secondary-nodename	SNODE=secondary-nodename
SNODEID=(userid,password)	SNODEID=(userid,password)
NEWNAME='alias-process-name'	NEWNAME=alias-process-name
PRIORITY=nn	PRTY=nn
CLASS=nnn	CLASS=nnn
NOTIFY=userid %USER	NOTIFY=userid %USER
TODSN='filename[(member-name)]'	&&TODSN=filename[(member-name)]
PROFDSN='filename[(member-name)]'	&&PROFDSN=filename &&PROFMEM=member
FTYPE=filetype	&&FILETYP=filetype
LOCAPPL=applid-prefix	&&LOCAPPL=applid-prefix
MBAPPL=appc-appl-id	&&MBAPPL=appc-appl-id
LOGMODE=logmode	&&LOGMODE=logmode
BUFSIZE=nnnnn	&&BUFSIZE=nnnnn
MAILBOXUID=(userid,password)	&&USERID=userid &&PASSWORD=password

Parameter	Keyword= <i>value</i> string used by Connect:Direct
Note: The remaining variables used by Connect:Direct have no corresponding Connect:Enterprise ROUTE instruction parameter. The values in these variables are generated from the JCL or from the VCF or ODF definition for each SUBMIT command sent to Connect:Direct.	&&RMTID=mailbox-id (source: VCF – BC\$KYID)
	&&BATCHNO=batch number (source: VCF – BC\$KYBNO)
	&&BATCHID=batchid (source: VCF – BC\$BCHID)
	&&MBNAME=mailbox-name (source: ODF – MBXNAME=)
	&&VSERVER=server-name (source: JCL – SC\$SUBSN)
	&&VPF=vpf-filename (source: ODF – VPF=)

End of Batch Application Agent for ICO Example

This example demonstrates how to specify an End of Batch application agent using the ROUTE instruction to send files to Connect:Direct.

In this scenario, whenever Connect:Enterprise collects a batch whose Mailbox ID begins with “REGION” and whose Batch ID begins with “Daily Sales,” “Weekly Sales,” or “Monthly Sales,” it submits a Process to Connect:Direct to extract the batch. The Process is submitted to the primary node.

The following End of Batch application agent rules accomplish this:

```

RULE NAME=RULE001
  ROUTE  PROC=MB#EXT01,
         PNODE=QD.OS390.V40000,
         PNODEID=(USER99,MAILBOX),
         TODSN='D&DATE.&BID1.&BID(13,05).B&BATCH#',
         PROFDSN=ICO.PROD.PROFILE(EXT01),
         PRTY=1,
         CLASS=13
SELECT  RULE=RULE001,
        ID=REGION*,
        BATCHID="Daily_Sales"
SELECT  RULE=RULE001,
        ID=REGION*,
        BATCHID="Weekly_Sales"
SELECT  RULE=RULE001,
        ID=REGION01,
        BATCHID="Monthly_Sales"

```

The following table explains the parameters:

Parameter	Description
RULE NAME	The RULE definition to perform on the selected batches.

Parameter	Description
ROUTE	The ROUTE instruction for the RULE statement.
PROC	The Process member to be submitted (MB#EXT01). This Process member resides in the DMPUBLIB DD data set allocated to Connect:Enterprise.
PNODE	The Connect:Direct PNODE to sign on to and where the Process is submitted. In this example, the PNODE is QD.OS390.V40000.
PNODEID	The user ID (USER99) and password (MAILBOX) used to sign on to Connect:Direct.
TODSN	The output data set name that Connect:Direct creates for the extracted batch. In this example: <ul style="list-style-type: none"> ◆ D&DATE specifies the 4-digit year and the 3-digit day of the year. ◆ &BID1 specifies the first 8 bytes of the Batch ID. ◆ &BID(13,05) specifies 5 bytes of the Batch ID beginning at position 13. ◆ B&BATCH# specifies the 7-digit batch number, including leading zeros. An example TODSN specification is D2000181.weekly_sales_rep.B0000224
PROFDSN	The Profile member containing the EXTRACT control statements. The Profile member always resides at the Connect:Direct node where the Process is submitted.
PRTY	The priority used for the SUBMIT command.
CLASS	The class used for the SUBMIT command.
SELECT	The SELECT statement which executes RULE001.
ID	Specifies that the SELECT statement selects batches whose Mailbox ID begins with "REGION."
BATCHID	Further restricts selection to any batches whose Batch ID begins with "Daily Sales," "Weekly Sales," or "Monthly Sales," within a Mailbox ID beginning with "REGION."

Messages and Exception Handling

This chapter describes InterConnect Option responses to data transfer requests.

InterConnect Option Messages

InterConnect Option issues the following messages to SYSPRINT:

Message	Description	Action
<p>CMB600I - BATCH# nnnnnnn, ID + (line 1)</p> <p>"xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx (line 2)</p> <p>xxxxx", RMTID xxxxxxxx ROUTED TO C:D NODE xxxxxxxxxxxxxxxxxxxx (line 3)</p> <p>PROCESS pppppppp [(SUBMITTED VIA ESF)] (line 4)</p>	<p>The specified Process was successfully submitted to the Connect:Direct Primary node for the batch identified by:</p> <ul style="list-style-type: none"> ◆ BATCH# – Batch Number. ◆ ID – User Batch ID ◆ RMTID – Remote ID (Mailbox ID) <p>The plus (+) sign in Line 1 acts as a place holder to cause the operating system to right align the three-digit multi-line continuation number with the continuation character in the preceding CMB297I message.</p> <p>If "(SUBMITTED VIA ESF)" is displayed in Line 4, the primary Connect:Direct node was unavailable, but the request was successfully placed on the TCQ (Transmission Control Queue) for later processing, when Connect:Direct becomes available.</p> <p>Note: This is a multi-line console message with the breaks shown in the Message column.</p>	<p>If necessary, change your automation package as necessary to properly identify CMB600I as a multi-line message.</p>

Message	Description	Action
<p>CMB601E - ROUTE INSTRUCTION FAILED FOR BATCH# nnnnnnn, ID (line 1)</p> <p>+ "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx (line 2) xxxxx", RMTID xxxxxxx (line 3)</p>	<p>A ROUTE instruction in an End of Batch RULES statement failed due to a Connect:Direct command error.</p> <p>The plus (+) sign in Line 1 acts as a placeholder to cause the operating system to right align the three-digit multi-line continuation number with the continuation character in the preceding CMB297I message.</p> <p>This message is followed immediately by messages CMB602I and CMB603I that identify the Connect:Direct user ID who signed on and the Connect:Direct error that caused the ROUTE instruction to fail.</p> <p>The RULE statement will terminate or continue based on customer-specified parameters in the RULE.</p>	<p>Review the CMB602I and CMB603I messages that follow this message.</p>
<p>CMB602I – C:D USERID=1-64 character ID.</p>	<p>The USERID associated with message CMB601E.</p>	<p>None required.</p>
<p>CMB603I – COMMAND xxxxxxxx FAILED AT C:D NODE xxxxxxxxxxxxxxxx. RC=nnnn. CDMSGID=xxxxxxx.</p>	<p>The command specified in the message failed. Other message values are:</p> <p>RC —The return code returned in response to the command.</p> <p>CDMSGID—The Connect:Direct message code.</p>	
<p>SIOB000I—Connect:Enterprise ADD or EXTRACT processing complete.</p>	<p>Successful DMSTOUT0 execution. Results are indicated by the return code. Normal processing continues.</p>	<p>None</p>
<p>SIOB003I—No input parms passed to DMSTOUT0.</p>	<p>The RUN TASK statement for DMSTOUT0 did not specify any parameters. Processing terminates with RC=20.</p>	<p>Complete the RUN TASK statement.</p>
<p>SIOB004I—Incorrect number of parms passed to DMSTOUT0.</p>	<p>The RUN TASK statement for DMSTOUT0 did not specify all 18 required parameters. Processing terminates with RC=20.</p> <p>The required parameters, in order, are:</p> <ol style="list-style-type: none"> 1. "ADD" or "EXT" 2. Profile DSN 3. Profile member 4. "SYSIN" DSN 5. "SYSPRINT" DSN 6. "INFILE" or "OUTFILE" DSN 7. "LOGFILE" DSN 8. "PRINT" DSN 	<p>Correct the RUN TASK statement.</p>

Message	Description	Action
	9. RMTID 10. BATCHID 11. BATCHNO 12. MAILBOX Name 13. Local VTAM APPL 14. MAILBOX APPL 15. LOGMODE Table 16. MAILBOX USERID 17. MAILBOX PASSWORD 18. VTAM Buffer Size	
SIOB005I—Incorrect length of first parm passed to DMSTOUT0.	The first parameter in the RUN TASK statement for DMSTOUT0 was not three characters long. The valid values for the first parameter are “ADD” or “EXT”. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB006I—Incorrect value of first parm passed to DMSTOUT0.	The first parameter in the RUN TASK statement for DMSTOUT0 specified an invalid value. The valid values for the first parameter are: “ADD” or “EXT”. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB007I—Incorrect length of second parm passed to DMSTOUT0.	The second parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 46 characters long (including quotes). The second parameter is the profile data set name, which must be a valid MVS DSNAME. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB008I—Incorrect length of third parm passed to DMSTOUT0.	The third parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The third parameter is the profile member name. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB009I—Incorrect length of fourth parm passed to DMSTOUT0.	The fourth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 46 characters long (including quotes). The fourth parameter is a file which is passed as “SYSIN” to MAPI0. Processing terminates with RC=20.	Correct the RUN TASK statement.

Message	Description	Action
SIOB010I—Incorrect length of fifth parm passed to DMSTOUT0.	The fifth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 56 characters long (including quotes). The fifth parameter is the data set name of the temporary file which will be passed as "SYSPRINT" to MBAPI0. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB011I—Incorrect length of sixth parm passed to DMSTOUT0.	The sixth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 56 characters long (including quotes). The sixth parameter is the data set name of the temporary file which will be passed as "INFILE" or "OUTFILE" to MBAPI0. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB012I—Incorrect length of seventh parm passed to DMSTOUT0.	The seventh parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 56 characters long (including quotes). The seventh parameter is the data set name of the temporary file which will be passed as "LOGFILE" to MBAPI0. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB013I—Incorrect length of eighth parm passed to DMSTOUT0.	The eighth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 56 characters long (including quotes). The eighth parameter is the "PRINT" DSN, that is, the data set name of the temporary file which will be passed as "SNAPOUT" to MBAPI0. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB014I—Incorrect length of ninth parm passed to DMSTOUT0.	The ninth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The ninth parameter is the RMTID, that is, the Connect:Enterprise Mailbox ID. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB015I—Incorrect length of tenth parm passed to DMSTOUT0.	The tenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than 26 characters long (including quotes). The tenth parameter is the Connect:Enterprise Batch ID. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB016I—Incorrect length of 11th parm passed to DMSTOUT0.	The eleventh parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than seven characters long. The eleventh parameter is the Connect:Enterprise Batch Number. Processing terminates with RC=20.	Correct the RUN TASK statement.

Message	Description	Action
SIOB017I—Incorrect length of 12th parm passed to DMSTOUT0.	The twelfth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The twelfth parameter is the Mailbox Name, that is, the Connect:Enterprise Name. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB018I—Incorrect length of 13th parm passed to DMSTOUT0.	The thirteenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The thirteenth parameter is the Connect:Enterprise local VTAM APPL Name. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB019I—Incorrect length of 14th parm passed to DMSTOUT0.	The fourteenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The fourteenth parameter is the Mailbox, that is, the Connect:Enterprise APPL Name. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB020I—Incorrect profile type for operation requested in DMSTOUT0.	The RUN TASK statement parameter specified ADD, but the profile did not start with an ADD command; or the RUN TASK statement parameter specified EXT, but the profile did not start with an EXTRACT command. Processing terminates with RC=20.	Correct the RUN TASK statement or profile.
SIOB021I—Incorrect length of 15th parm passed to DMSTOUT0.	The fifteenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The fifteenth parameter is the LOGMODE table, that is, the Connect:Enterprise LOGON Mode Table. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB022I—Incorrect length of 16th parm passed to DMSTOUT0.	The sixteenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The sixteenth parameter is the Connect:Enterprise USERID, that is, the MAILBOX USERID. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB023I—Incorrect length of 17th parm passed to DMSTOUT0.	The seventeenth parameter in the RUN TASK statement for DMSTOUT0 is missing, or is more than eight characters long. The seventeenth parameter is the Connect:Enterprise PASSWORD, that is, the MAILBOX PASSWORD. Processing terminates with RC=20.	Correct the RUN TASK statement.

Message	Description	Action
SIOB024I—Invalid VTAM buffer size specified as the 18th parameter	The eighteenth parameter in the RUN TASK statement for DMSTOUT0 contained an invalid value. The eighteenth parameter is the VTAM buffer size, which may be 1 to 5 numeric characters from 0 to 65535. If 0 is specified, the default of 32K is used. Processing terminates with RC=20.	Correct the RUN TASK statement.
SIOB030I—Non-zero RC from STOAPI00.	Connect:Enterprise API program STOAPI00 returned a non-zero value in register 15. Processing terminates with RC=ATTACH RC.	Review statistics and reports to resolve the problem. If you are unable to determine the cause of the problem, contact Sterling Commerce Customer Support for assistance.
SIOB040I—Module STOAPI00 not found.	Connect:Enterprise API program STOAPI00 was not located. Processing terminates with RC=ATTACH RC.	Ensure that the library containing program STOAPI00 is in your Connect:Direct STEPLIB.

Connect:Enterprise ABEND Codes

The following are possible ABEND codes if Connect:Enterprise fails:

Abend Code	Explanation	Dump
U0365	Routing table not found in STEPLIB/JOBLIB/LINKLIB	No
U0366	Invalid routing table	No
U0367	Routing table does not specify default signon id	No
U0370	Unable to sign on default ID	No
U0666	Intertask queue exhausted - internal error	Yes
U0777	Compare and Swap logic failed - internal error	Yes

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