IBM Sterling Connect:Enterprise for UNIX

Release Notes

Version 2.5

This edition applies to the 2.5 Version of IBM® Sterling Connect:Enterprise® for UNIX and to all subsequent releases and modifications until otherwise indicated in new editions.

Before using this information and the product it supports, read the information in *Notices*, on page 21.

Contents

IBM Sterling Connect:Enterprise for UNIX Version 2.5.00 Release Notes

The *IBM Sterling Connect:Enterprise for UNIX Version 2.5.00 Release Notes* document supplements IBM® Sterling Connect:Enterprise® for UNIX version 2.5 documentation. Read the document in its entirety before installation. Version 2.5 includes all maintenance from 2.4.01, 2.4.02, and 2.4.03. No Release Notes were published for version 2.4.02.

The Sterling Connect:Enterprise for UNIX package consists of the distribution media and product publications. Sterling Connect:Enterprise for UNIX is distributed as a file downloaded from the IBM Electronic Software Distribution Portal. See *Installing the Application* on page 17 for instructions.

Requirements

Your use of Sterling Connect:Enterprise for UNIX version 2.5.00 has the following requirements:

Hardware and Software

Sterling Connect:Enterprise for UNIX requires the following hardware and software:

Note: Sterling Connect:Enterprise for UNIX no longer supports ARTIC cards for Bisync connectivity or the Linux zSeries operating system.

Component or Functionality	Hardware	Software
Sterling Connect:Enterprise for UNIX Base	HP 9000 platform (PA-RISC only)	HP-UX 11.23, 11.31
	IBM RISC System/6000 platform	AIX 6.1, 7.1
	SUN SPARC systems	Solaris 10 or 11
	Intel Pentium system	RedHat Enterprise Linux EL 5 SuSE Linux Enterprise Server 10 or 11

Component or Functionality	Hardware	Software
External Authentication Service		Open LDAP version 2.2 Open LDAP version 2.3 IBM Tivoli 5.2 with Fixpack 3 Microsoft Windows 2003 Domain Functional Level Active Directory
Service interface daemon for the Site Administration user interface and WebDAV server		IBM JRE version 1.6 (provided)
AS2		IBM JRE version 1.6 (provided)
Site Administration user interface		Browser: ◆ Internet Explorer version 7.0 and later ◆ Mozilla Firefox 3.6 and later
		Web servers\servlet engine options: ◆ Jetty server (installed with Sterling Connect:Enterprise for UNIX) ◆ IBM WebSphere 7.0 and 8.0 on all supported UNIX platforms ◆ SunONE Application Server 7.0 (formerly iPlanet) on all supported UNIX and Microsoft Windows platforms ◆ Apache HTTP Server 1.3 or later with Tomcat 5.0 and 6.0 on all supported UNIX platforms ◆ IIS version 5.0 with JRun 4.0 on all supported Microsoft Windows platforms
User exits		Operating system-compatible ANSI C compiler
Sterling Connect:Direct for UNIX interoperability		Sterling Connect:Direct for UNIX version 3.8 and later
Communications	TCP/IP support Supported Modem/LAN device options: ◆ Synchronous modem (external) ◆ Asynchronous modem (external) ◆ Ethernet or Token Ring network card	

Component or Functionality	Hardware	Software
Async Communications	MUX card that supports modem controls and hardware flow control, for example, J2094A, and the cables required for your environment. **Note:** Contact Hewlett-Packard for information on DTC16 MUX boards that support modem hardware flow control and the specific cables they require to support modems.	HP-UX 11.23, 11.31 (PA-RISC only)
	Sun Microsystems part number X1008A - 8-port serial parallel controller (includes internal S-bus adapter, cable, and external 8-port panel). Verify hardware compatibility with Sun Microsystems.	SUN SPARC Solaris 10 or 11 operating system
Bisync Cleo SYNCcable+	◆ One 3780Plus package or kit for each communications line ◆ One Cleo-supported synchronous modem for each communications line ◆ Digi Etherlite port server or servers for additional asynchronous ports	Included with 3780Plus package or kit

Additional Requirements

Sterling Connect:Enterprise for UNIX has the following additional software requirements:

- Berkeley Software Distribution (BSD) sockets or compatible support
- SOCKS version 4.x is required if you are using SOCKS for network access control.
- If you use Sterling Connect:Enterprise HTTP, you must run Sterling Connect:Enterprise HTTP version 1.3.01 to view files larger than 2 GB in the directory list.

What's New in This Release

Sterling Connect:Enterprise for UNIX version 2.5 has the following features and enhancements:

Note: If you are upgrading from a previous release of Sterling Connect:Enterprise for UNIX and you use Password Encryption or Stored Batch Encryption, please read the section entitled *Upgrading to* Sterling Connect:Enterprise for UNIX *Version 2.5.00* for important fallback information.

Version	Enhancement
2.5.00	Supports WebSphere Application Server 7.0 and 8.0
	Removes asset protection
	Ships IBM JRE 1.6 with Sterling Connect:Enterprise for UNIX
	External authentication is no longer shipped with the product. New Customers can connect only to an external SEAS (by hostname and port). Upgrading Customers using the internal external authentication may continue to use it (started by pathname).
	Upgrades the Certicom Java toolkit, which provides better AS2 certificate recognition
2.4.04	Supports FTP/TLS transport encryption, AES ciphers, and improved diagnostics
	Supports AES128 ciphers for password encryption and stored batch encryption
	Supports multiple HTTP daemons in AS2 autoconnect definitions for better failover
	Provides better error detection and recovery of DMZ protocol daemons
	Includes support for idle session timeout for SSH remote connect sessions
	Upgrades Jetty to version 6.1.23 to address known security issues
	Includes support for Intel Linux SuSE 11
	Upgrades OpenSSL to version 0.9.8L to address known security issues
2.4.03	Upgrades Jetty to version 6.1.18 to address known security issues
	Supports Intel Linux RedHat AS5
	Provides support for HPUX 11.31 (PA-RISC only)
	Provides support for AIX 6.1
2.4.02	Provides better tracing of SSL handshake errors
	Reduces AS2 trace output
	Allows the filename to be sent in AS2 header
	Updates OpenSSL libraries to 09.8D level
	Allows wildcarding in mailbox list
	Allows you to turn off in-progress (P) flag without taking product down
	Allows download of multitransmit (M) batch from multiple sessions simultaneously
	Logs device/IP/ports used during protocol sessions
	Logs the reset of a locked ID
	Honors the order of resources in the autoconnect (ACD) definition
	Updates cmurebuild -x to automatically delete index files before rebuilding
	Adds new -N "passphrase" parameter on cmusshkey, ceupassadm, ceupassencrypt

Version	Enhancement
	Allows extracts without setting extracted (E) flag via API
	Adds new utility to dump user rolefile databases
	Makes AS2 contract configuration screens more intuitive
	Rerequests passphrase on failed first attempt
	Remembers passphrase during Admin GUI session
	Allows you to filter batches by P flag
	Splits the "Add" button on the Manage Schedules screen into "Add" and "Add AS2"
	Allows you to set an AS2 "chunking" threshold less than 2GB
	Supports Java JDK 1.5 and 1.6
	Supports Intel Linux Red Hat AS4
	Supports WebSphere Application Server 6.1
	Supports Intel SuSE Linux 9 and 10
2.4.01	Increases data buffer sizes to 16 KB, to and from the mailbox daemon
	Eliminates unnecessary internal acknowledgement data flows through the extract and transmit operations
	Allows ceuadmin and webdav daemons to run separately
2.4.00	Provides support for large AS2 payload sizes with no forced or implied maximum AS2 file size
	Provides AS2 batch correlation through a new batch naming convention, which includes the batch number of the original payload batch
	Provides dynamic tracing capability for the Java daemons
	Supports Solaris 10
	Supports Implicit SSL

Description of Defects Resolved for This Release

The following table describes the defects resolved for Sterling Connect:Enterprise for UNIX version 2.5.00 since the last maintenance release. For the history of issues resolved prior to this release, navigate to the Product Updates/Downloads site for your product and platform and review the Fix List.

Defect	Description
QC 17534	Intermittent mailbox add failures occur when doing an mput from FTPDMZ.
QC 17784	SSH password authentication fails when attempting to authenticate to server with Kerberos (GSS) authentication allowed.

Defect	Description
QC 17829	When SIPS encryption is turned on, extract fails for large files.
QC 17845	The ceupassencrypt utility fails when the RSD path+filename is greater than 80 bytes.
QC 18059	After a successful send, FTP/SSL autoconnect fails due to close_notify hang.
QC 18512	cmufixup utility is removing files for batches that are currently being added.
QC 18637	For an implicit FTP/SSL autoconnect, Sterling Connect:Enterprise for UNIX is not sending the PROT P command that is required by some servers.

Special Considerations

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

Sterling Connect:Enterprise Base

Consider the following information when you configure Sterling Connect:Enterprise for UNIX.

VMWare

Sterling Connect:Enterprise for UNIX may be run on a supported OS under VMWare. If Technical Support cannot replicate an issue in a certified environment, they will require you to replicate the issue in a certified environment before troubleshooting further.

Preventing AS2 Timeouts

To avoid timeout problems when sending large AS2 batches, use Async MDNs.

AS2 Self-Signed Certificates and Direct Trust

When you are configuring AS2 contracts for SSL (HTTPS), two trust models are offered: Trusted Certificates and Direct Trust. If your trading partner is using self-signed certificates for SSL (as opposed to certificates signed by a Certificate Authority), you must configure the contract to use Direct Trust. Otherwise, the connection will fail. This behavior changed from version 2.3.00, so take particular care when upgrading to version 2.5.00.

Batch Encryption of Inbound AS2 Batches

Sterling Connect:Enterprise for UNIX saves a transcript (copy) of every inbound AS2 message in the “dead-letter” mailbox (if one is configured in the port’s definition; otherwise, the target mailbox specified in the request will be used). If request processing is successful and the trading partner’s contract specifies to “Retain original messages in recipient mailbox,” then the transcript will be

moved to the target mailbox and given the ".AS2" suffix. If processing is unsuccessful, the transcript is simply given the ".BQ" suffix, indicating the inbound request was not processed.

If batch encryption has been configured for the "dead-letter" mailbox only, then the transcript will remain encrypted even though it has been moved to the target (unencrypted) mailbox.

Likewise, if only the target mailbox has been configured for batch encryption, then the transcript will remain unencrypted even though it has been moved to the target (encrypted) mailbox.

Specifying Port Range Parameters with Nonsecure FTP

When nonsecure FTP is used, the following parameters must be specified in the FTP communications protocol definition (CPD file) because they are not supported in the schedule definition (ACD file) or the remote account definition (RSD file):

- PASSIVE
- PORT_RANGE
- PORT_RETRIES
- PORT_RETRY_WAIT_TIME

New Terminal Output File for Major Daemons

All major daemons start normally and then redirect output to /dev/null and stdin from /dev/null. This enhancement was introduced in version 2.4.02 to keep the product from hanging when the id that started it logged off and could not accept console messages. In some cases, however, you may miss valuable diagnostic information from the daemons. You can redirect the stdout and stderr streams to a file by adding the -o <filename> option to each of the major daemons in the ceustartup script.

Allowing the ceuadmin and webdav Daemons to Run Separately

The ceuadmin and webdav daemons may be run separately to allow for using different placement and/or access options. For example, you may want to run the WebDAV daemon in the DMZ and disable the Admin functionality there.

- The cmuadmind script now allows the -D ceudav and -D admin options to disable one or the other functionality:

Admin Option	Description
-D ceudav	Disables the WebDAV service, and prevents deployment of ceudav.war, if it is present.
-D admin	Disables the admin UI service, and prevents deployment of ceuadmin.war, if it is present.

- The -w <portnum>, -W <portnum>, and -f <cpdfile> options are no longer supported as command line options to cmuadmind.

- The -C <configfile> option has been added to cmuadmind, where <configfile> can be either of the following:
  - A simple file name, for which the default path is $CMUHOME/cpd/admin
  - A fully-qualified path to a file (starting from /). The default is $CMUHOME/cpd/admin/Admind.xml.

Note: The cmuadmind changes may cause upgrade issues if you are running a release earlier than Sterling Connect:Enterprise for UNIX version 2.2.00. Reconfiguration of the cmuadmind services is required if you are running a release prior to version 2.2.00.

High-Availability Environment

If you require a high-availability environment, obtain third-party high-availability software from the IBM (HACMP), Sun (Sun Cluster), or Hewlett-Packard (MC/Service Guard) corporations. Sterling Connect:Enterprise for UNIX supports the failover capabilities of IBM high-availability cluster multi-processing (HACMP), Sun Cluster, and Hewlett-Packard MC/Service Guard high-availability software using bisynchronous and FTP protocols. The following list identifies considerations for inbound and outbound transmissions on all platforms:

- When a failover occurs, the sender must restart inbound file transfers that are in progress.
- Depending upon the timing and nature of a failure that results in a failover, specific outbound transfers may also require a manual restart.
- The high-availability feature in IBM® Sterling Connect:Direct® for UNIX can be integrated with the Sterling Connect:Enterprise for UNIX high-availability feature.

Considerations for FTP Sessions

Use the following information for establishing and maintaining FTP sessions:

- An FTP session attempted with the **Remote communication sequence (mode)** parameter set to **Send, then receive** fails when the **AC send directory** and **AC receive directory** parameters are not set. To avoid this problem, ensure that the **AC send directory** and **AC receive directory** parameters are set and that the send directory is different from the receive directory.
- The Sterling Connect:Enterprise server closes the control channel when it is out of disk space for FTP connections. If this occurs, the FTP transfer must be restarted.

Resource Use for Communications Sessions

Sterling Connect:Enterprise for UNIX requires one semaphore, one shared memory segment, and at least one socket descriptor for each communications session (FTP, Async, or Bisync). In addition, each bisync port configured with the SYNCcable+ hardware uses one shared memory segment between 20 K and 40 K. When the session finishes, those resources are released. As a result, the total number of concurrent communications sessions possible on a particular platform depends on the settings of these kernel parameters.

In addition, be aware of what other users are doing on the same system, because other activities can require the same resources needed by Sterling Connect:Enterprise for UNIX.

Sterling Connect:Enterprise Linux Functionality

Consider the following information for the Linux operating system: Approximately 20 Java processes start when the http daemon and the ediint daemon are started on the Linux OS. This is normal behavior that is due to the Linux thread support architecture.

FTP - Replacing System Standard FTP or SSH

The Sterling Connect:Enterprise for UNIX FTP and SSHFTP servers can run in place of the system standard servers to provide a more secure point of entry to your Sterling Connect:Enterprise for UNIX system. To replace your system servers:

1. In your Sterling Connect:Enterprise for UNIX binary directory ($CMUHOME/<os>/bin), change the owner of the FTP and SSHFTP binaries and setuid to **root**, this allows Sterling Connect:Enterprise for UNIX to listen on the standard FTP and SSH ports (21 and 22).

   For FTP, use the following commands:

   ```
   $ chown root cmuftpd ftpd ftp
   $ chmod 4755 cmuftpd ftpd ftp
   ```

   For SSH, use the following commands:

   ```
   $ chown root cmusshftpd sftp-server
   $ chmod 4755 cmusshftpd sftp-server
   ```

2. Edit the communication port definition file for FTP and SSHFTP to change the value for PORTLISTENER to 21 and 22, respectively.

Port Definition File	Value
$CMUHOME/cpd/ftp.cpd	PORTLISTENER = 21
$CMUHOME/cpd/sshftp.cpd	PORTLISTENER = 22

3. Copy the Sterling Connect:Enterprise for UNIX inter-process communication shared object library to /usr/lib and mark it as owned by root. Use the following commands:

   ```
   $ cp $CMUHOME/<os>/lib/libcmusips.so   /usr/lib
   ```

   Note: For HP-UX, copy libcmusips.sl and not libcmusips.so.

   ```
   $ chown root /usr/lib/libcmusips.so
   ```

   Note: For HP-UX, mark libcmusips.sl and not libcmusips.so

4. Delete or comment out the line in /etc/inetd.conf that refers to ftp and sshftpd, for example:

```
#ftp     stream  tcp     nowait  root    /etc/ftpd ftpd
#sftp     stream  tcp     nowait  root    /etc/sftpd sftpd
```

5. Signal inetd so that the change will take effect:

```
$ kill -1 nnnn
```

   The *nnnn* is inetd PID number.

6. Restart Sterling Connect:Enterprise for UNIX so that its configuration changes will take effect:

```
$ ceushutdown -i
$ ceustartup
```

7. When installing a new release or adding maintenance to any of the above modules, you will need to take off the root permissions, do the install, and add the root permissions again.

Known Restrictions

Sterling Connect:Enterprise for UNIX version 2.5 has the following restrictions:

Component/Functionality	Restriction
FTP	FTP Proxy firewalls do not work with SSL.
AS2	Client authentication is not supported with Sterling Connect:Enterprise for UNIX when HTTPS is used for the AS2 protocol.
WebDAV	Sterling Connect:Enterprise does not accept WebDAV files larger than two gigabytes (2147483647 bytes) unless your WebDAV client supports chunked transfer encoding.
High Availability	◆ The Sterling Connect:Enterprise for UNIX high-availability feature does not support asynchronous communications. ◆ High availability is not supported on Linux.
NFS Drives	Specifying the staging directory for the File Agent on an NFS drive causes problems for the cereport tool. Unless the system time on the local workstation and the NFS server are exactly the same, the Sterling Connect:Direct component of cereport cannot locate records for specific transactions and cannot correctly report the path taken by batches extracted for transfer using Sterling Connect:Direct. All such transfers are identified as **U** (Unknown).
Sterling Connect:Enterprise HTTP	Due to browser restrictions, you cannot use Sterling Connect:Enterprise HTTP to send or receive files larger than 2 GB.

Component/Functionality	Restriction
SSHFTP	When acting as an SSHFTP server, Sterling Connect:Enterprise for UNIX will not allow multiple simultaneous uploads or downloads. The SSH client is responsible to close each upload or download prior to starting another.

Installation Notes

The installation program executes a master script that calls the installation script for each component. You can install all of Sterling Connect:Enterprise for UNIX or just selected components.

Installation instructions for Sterling Connect:Enterprise for UNIX are located in the *IBM Sterling Connect:Enterprise for UNIX for Installation and Administration Guide,* which is available in a PDF file located in the ESD download file.

Refer to the *IBM Sterling Connect:Enterprise for UNIX Installation and Administration Guide* before installing Sterling Connect:Enterprise for UNIX. Also, review the following publications and gather any necessary information before installing Sterling Connect:Enterprise components:

- *IBM Sterling Connect:Direct for UNIX Getting Started Guide*
- *IBM Sterling Connect:Direct for UNIX Release Notes*

Read the following publications for more information regarding optional components for Sterling Connect:Enterprise for UNIX.

- *IBM Sterling Connect:Enterprise Command Line Client (Secure FTP) User Guide*
- *IBM Sterling Connect:Enterprise HTTP Installation and Administration Guide*

Networked Storage Media

You cannot install Sterling Connect:Enterprise for UNIX on networked storage media that does not support synchronous file system locking, such as NFS or Samba shares.

UNIX File System Support

If you want to have batches larger than 2,147,483,647 bytes, you must run on a UNIX file system that supports files larger than 2 gigabytes.

CPIO File Names During Installation

Use the following abbreviated directories to obtain cpio file names for use during installation:

File Name	Description
${ESD_root}/ceinstall	Main installation script to install Sterling Connect:Enterprise
${ESD_root}/Base/cebase2500.cpio	Sterling Connect:Enterprise Base CPIO file (without encryption)
${ESD_root}/Base/cebase2500s.cpio	Sterling Connect:Enterprise Base CPIO file (with encryption)

Kernel Parameters on HP-UX Operating Systems

If you are running an HP-UX operating system, ensure that the following *minimum* values are set in SAM:

Parameter	Value
maxuprc	1024
maxusers	1024
nflocks	2048
nstrpty	60
semaem	16384
semmap	1026
semmni	1024
semmns	16384
semmnu	2048
semume	256

These lines increase the number of available semaphore and shared memory resources in the kernel. If you change your semaphore or shared memory settings, you must reboot your computer for the new settings to take effect.

Kernel Parameters on Linux Operating Systems

If you are running a Linux operating system, ensure that the following minimum values (or higher) for semaphore and shared memory values are set in `/etc/sysctl.conf`:

```
# Connect:Enterprise for UNIX Semaphore and Shared memory values
# SEMMSL - maximum number of semaphores per semaphore set
# SEMMNS - total number of semaphores (not semaphore sets) for the entire Linux system.
  (SEMMSL*SEMMNI)
# SEMOPM - maximum number of semaphore operations that can be performed per system call
  (semaphore call)
# SEMMNI - maximum number of semaphore sets for the entire Linux system
kernel.sem=250 256000 512 1024
# SHMMAX - maximum size of a shared memory segment
# SHMALL - maximum number of shared memory segments
kernel.shmmax=1048576
kernel.shmall=1024
```

These lines increase the number of available semaphore and shared memory resources in the kernel. If you change your semaphore or shared memory settings, you must reboot your computer for the new settings to take effect.

Kernel Parameters on Solaris Operating Systems

The minimum semaphore and shared memory settings for Sterling Connect:Enterprise for UNIX on Solaris operating systems in the */etc/system* file are:

```
set semsys:seminfo_semmap=1026
set semsys:seminfo_semmsl=200
set semsys:seminfo_semmni=1024
set semsys:seminfo_semmns=16384
set semsys:seminfo_semmnu=400

set shmsys:shminfo_shmmax=1048576
set shmsys:shminfo_shmmni=1024
```

Note: These are the *minimum* settings. If your settings are higher, you do not need to change them.

These lines increase the number of available semaphore and shared memory resources in the kernel. To check your settings, use the **sysdef** command on Solaris operating systems. If you make changes to your semaphore or shared memory settings, you must reboot your computer for the new settings to take effect.

Exporting Environment Variables

You must set the environment variables before starting Sterling Connect:Enterprise for UNIX. Refer to *Exporting Environment Variables* section of the *IBM Sterling Connect:Enterprise for UNIX Installation and Administration Guide* after installation.

Upgrading to Sterling Connect:Enterprise for UNIX Version 2.5

If you are upgrading from an existing version of Sterling Connect:Enterprise for UNIX, refer to Chapter 3, *Upgrading* Sterling Connect:Enterprise for UNIX, in the *IBM Sterling Connect:Enterprise for UNIX Installation and Administration Guide* for detailed instructions and upgrade considerations. This is especially important if you are upgrading from a release prior to version 2.4.04 and are using Password or Stored Batch encryption. The *IBM Sterling Connect:Enterprise for UNIX Installation and Administration Guide* contains important planning and fallback considerations.

Installing the Application

To install Sterling Connect:Enterprise for UNIX:

1. Review *IBM Sterling Connect:Enterprise for UNIX Version 2.5.00 Release Notes* for last-minute product information and installation requirements.

2. Print and review the Sterling Connect:Enterprise for UNIX installation documentation on the ESD download file.
3. Go to *Creating the User ID* in Chapter 2 of *IBM Sterling Connect:Enterprise for UNIX Installation and Administration Guide* and follow the directions to create the ID used for the installation.
4. Go to step 4 of *Running the Sterling Connect:Enterprise Installation Script* in *IBM Sterling Connect:Enterprise for UNIX for Installation and Administration Guide*, and follow the directions to complete the installation.

Configuring Modems

The following section provides information for configuring your modems.

Configuring Modems for Async-Specific Information

The following parameters are the minimum Hayes-compatible modem configuration parameters necessary for proper operation of the Sterling Connect:Enterprise for UNIX async daemon:

Parameter	Description
S0=1	Auto-answer on first ring
E0	Local character echo off
Q1	Response displays off (No *OK*, *Connect*, and so forth)
&C1	DCD (data carrier detect) on while carrier is present
&D2	Loss of DTR (data terminal ready) disconnects

The modem control string is set in the **Modem Initialization** field on the Configuring Async Communications screen of the Site Administration user interface or using the MDMCTL parameter in the communications protocol definition (CPD). The format of the Async CPD modem control parameter is an AT command. The following async CPD statement is sufficient:

```
AT S0=1 E0 M0 &C1 &D2
```

Stopping Child Process Before Turning Off Async Modem

The Async master daemon (**cmuasyd**) forks a child process for each Async modem used. If you know in advance that you need to turn a modem off (for example, to replace it or move it), first stop the Async child daemon associated with that modem; otherwise, that port becomes unusable. After the modem is back on, restart the child process. This action does not disrupt other Async modems.

If power to a modem is unexpectedly lost before the associated Async child process is terminated, the port is unusable until the Async master daemon is stopped and restarted. This forces all the Async ports under that master daemon's control to be cycled (creating new child processes), even if the other Async modems experienced no power disruption.

Configuring Modems for Cleo Bisync Support

If you are using the SYNCcable+ hardware and the Cleo bisync daemon **cmubscdc**, the Cleo configuration file settings for the dialing method and the modulation type must match your modem settings.

Note: Do not specify a value for termid in the Cleo configuration file.

Refer to Cleo documentation when you set up the modem and configuration file. You can also refer to www.cleo.com for more setup information.

Note: You must install and test the SYNCcable+ hardware and accompanying software according to the procedures defined by Cleo Communication Systems *before* you configure Sterling Connect:Enterprise for UNIX to use it.

See *Requirements* on page 5 for SYNCcable+ requirements.

Configuring UDS Modems

Configure UDS v.3225/v.3229 for v.25bis Bisync dialing using its built-in setup menu. Consult the modem manufacturer's manual for instructions on how to set these options.

Using Etherlite Port Servers

The Digi Etherlite port server has network connectivity and is accessed by the UNIX computer through an IP connection. Sterling Connect:Enterprise for UNIX detects no difference between a native port connection and an Etherlite connection. The Etherlite terminal server enables Sterling Connect:Enterprise for UNIX to attach multiple bisync modems to one server and also enables these modems to be shared by a high-availability cluster.

The Digi Etherlite ports are physically different from the native ports, so when you use 3780Plus, do not use the async cable supplied with the 3780Plus package. The Digi Etherlite port server and special cable kit required are specific to your particular hardware configuration and can be purchased from Cleo Communications Systems. The Digi Etherlite port servers come with the necessary software for the Etherlite installation. Procedures to install the Etherlite hardware are also available from the Digi Web site at http://support.digi.com/.

The tty devices used to communicate with the Etherlite terminal server and the device names used in the Sterling Connect:Enterprise for UNIX configuration files are generated during the installation procedure. Refer to the *IBM Sterling Connect:Enterprise for UNIX Configuration Files Reference Guide* for more information.

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