

**Cleo® TNFTSE6 V4.6
for Avaya IR® R4.0/R3.0/R2.0/R1.X
Host Interface for TN3270 Extension
Cleo File Transfer Extensions
Quick Start Guide
Installation from a CPIO Image**

This Quick Start Guide contains information about installing the Cleo TN3270 File Transfer Extensions Software Package for the Avaya IR R4.0/R3.0/R2.0/R1.X system.

Important!

Read this document before installing and using the TNFTSE6 software. If you have questions about installing and using this product, contact CLEO Communications Technical Support between the hours of 8:30 A.M. and 5:00 P.M. (EST/EDT) at: 1.866.444.2536 or support-en@cleo.com.

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TNFTSE6 Installation

Software Prerequisites

- Solaris Sparc 8 Release 11 or Greater(SunOS Release 5.8 Version Generic_108528-11) or Solaris Sparc 10
- Avaya IR R4.0/R3.0/R2.0 on Solaris 8/Solaris 10 or R1.1/R1.2/R1.3 on Solaris 8
- IVR Designer or Script Builder.
- Cleo TN3270 V6.0.7.16 or Cleo SNA V6.0.7.15
- Cleo vstndip V2.4, Ctnhdip V2.5, CleoTDIP V4.1, CLEOTDIP V4.2 or CLEOTDIP6 V4.6.

Before the TNFTSE6 Extended feature File Transfer package can be installed, the following software must be installed and configured on the Avaya IR R4.0/R3.0/R2.0 on Solaris 8 or Solaris 10 or R1.X on Solaris 8 system having a connection to a 3270-mainframe host, using TN3270 protocol.

Cleo Host Interface for TCP/IP

Cleo Host Dip Package vstndip V2.4

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.14

OR

Cleo Host Dip Package Ctnhdip V2.5

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.16

OR

Cleo Host Dip Package CleoTDIP V4.0 or V4.1

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.17

OR

Cleo Host Dip Package CLEOTDIP V4.2

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.17

OR

Cleo Host Dip Package CLEOTDIP V4.3

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.17

OR

Cleo Host Dip Package CLEOTDIP6 V4.6

Cleo TN3270 Software Package cleotn TN3270(E) V6.0.7.17

Note: Before installing Cleo TNFTSE6, please enter the following command:

```
# stop_vs [wait for this step to complete; it will take several minutes]
```

Installing the TNFTSE6 Software Package from CPIO Image

1. Login as *root*.
2. Enter the following commands:

```
# stop_vs
# stop_hi
```
3. Make sure that the following software packages are already installed. To see what Cleo packages are already installed, use the command

```
# pkginfo | grep cleo
```
4. PACKAGES THAT MUST ALREADY BY INSTALLED

```
system cleotn      Cleo TN3270(E) client package

Cleo vstndip V2.4, Ctnhsip V2.5, CleoTDIP V4.0/V4.1, CLEOTDIP V4.2, or
CLEOTDIP3 V4.3, or CLEOTDIP6 V4.6
```
5. If the `"/export/cleo"` directory does not already exist, create the directory to contain the Cleo Host Interface Extensions Software.

```
# cd /export
# mkdir cleo
# chmod 777 cleo
```
6. After downloading and unzipping the CPIO image of the Cleo TNFTSE6 Enhanced File Transfer Host Interface Extensions Software, move the resulting file(CleoTNFTSE6IR46cpio.Z) to the Avaya IR system and place it in the `/export/cleo` directory, and uncompress the file.

```
# cd /export/cleo
# uncompress CleoTNFTSE6IR46cpio.Z
```
7. Use the following command to move the Cleo TNFTSE6 Enhanced File Transfer Host Interface Extensions Software from the CleoTNFTSE6IR46cpio file.

```
# cpio -ivBdumc < CleoTNFTSE6IR46cpio
```

8. Start the Installation of the TNFTSE6 Package

NOTE: During the pkgadd installation, please respond by entering “y” for the following questions:

The following files are already installed on the system and are being used by another package:

Do you want to install these conflicting files [y,n,?,q]

The following files are being installed with setuid and/or setgid permissions

Do you want to install these as setuid/setgid files [y,n,?,q]

This package contains scripts which will be executed with super-user Permissions during the process of installing this package.

Do you want to continue with the installation of <TNFTSE6> [y,n,q]

```
# pkgadd -d /export/cleo/TNFTSE6
```

APPENDIX A.

REMOVING Cleo TNFTSE6 Software Package

1. Login in as *root*.
2. Remove the **Cleo TNFTSE6 Software Package**, by entering the following command:

```
# pkgrm TNFTSE6
```

APPENDIX B.

Contents of the Cleo TNFTSE6 Software Package

- **cvis_fts**

The `/vs/bin/vrs/cvis_fts` DIP to transfer files between the Avaya IR System and a Host Mainframe System.

- **hsend**

The **hsend** command(`/vs/bin/ag/hsend`) sends a file to the host via the **cvis_fts** DIP.

- **hrecv**

The **hrecv** command(`/vs/bin/ag/hrecv`) receives a file from the host via the **cvis_fts** DIP.

- **fts_off**

The **fts_off** command(`/vs/bin/util/fts_off`) modifies the `/etc/inittab` entry to stop the **cvis_fts** DIP from respawning.

- **fts_on**

The **fts_on** command(`/vs/bin/util/fts_on`) modifies the `/etc/inittab` entry to respawn the **cvis_fts** DIP.

The following commands that were part of the TNFTSE6 package on the Avaya Conversant V8 platform(Unixware 7.1) are NO LONGER part of the TNFTSE6 software package. The reason is that Avaya no longer supports Script Builder and the Avaya scripts that these Cleo Commands used, on the Avaya IR platform.

- **install_appl** (NO LONGER AVAILABLE)

The **install_appl** command(/vs/bin/install_appl) installs an Enhanced File Transfer System Host Script Builder application on the Conversant System.

- **remove_appl** (NO LONGER AVAILABLE)

The **remove_appl** command(/vs/bin/remove_appl) removes an Enhanced File Transfer System Host Script Builder application from the Conversant System.

- **install_sw** (NO LONGER AVAILABLE)

The **install_sw** command(/vs/bin/install_sw) installs a software package on the Conversant System.

- **remove_sw** (NO LONGER AVAILABLE)

The **remove_sw** command(/vs/bin/remove_sw) removes a software package from the Conversant System.

- **backup_appl** (NO LONGER AVAILABLE)

The **backup_appl** command(/vs/bin/backup_appl) backs up an Enhanced File Transfer System Host Script Builder application.

- **restore_appl** (NO LONGER AVAILABLE)

The **restore_appl** command(/vs/bin/restore_appl) restores an Enhanced File Transfer System Host Script Builder application.

APPENDIX C.

Instructions for using the **hsend** and **hrecv** commands:

Synopsis

hsend file=unix_file [sess=n] [dest=host_file] [opt=option_list | n]

Description

The **hsend** command is used to send a file to the host via the `cvis_fts` DIP. The arguments for the **hsend** command are:

- **file** – A mandatory argument. The **unix_file** parameter is the FULL PATH of the UNIX system file to be sent to the host. See Appendix D. for file name guidelines for file transfer.
- **sess** – An optional argument, where **n** is a Host Session ID(0-253). The LU mapped to the Host Session ID will be used for the file transfer. If the Host Session ID specified, **n**, is **NOT** of type **FTSCRT** and/or the Host Session ID is **NOT** “hassigned” to a Host Application, the file transfer will not occur.
- **dest** – An optional argument, where **host_file** is the final destination of the file at the host. If this parameter is not specified, the **DESTINATION** parameter value in the file `/vs/data/fts_config` is used.
- **opt** – An optional argument, where **option_list** is the list of option parameters or **n** (for no options). Options must be separated by a space. If an option list is provided, it is sent to the host as part of the `IND$FILE` file transfer program.

If **opt=n** the PARAM1, PARAM2, and PARAM3 values in the **/vs/data/fts_config** file are not used. If this argument is missing(the default), the PARAM1, PARMAM2, and PARAM3 values in the **/vs/data/fts_config** file are used to append to the IND\$FILE transfer program.

NOTE: If the **sess** argument is NOT specified, then the first available Host Session ID of type **FTSCRT**, will be used for the file transfer.

Return Values

- 1 No FTSCRT LU available for File Transfer
- 2 The Unix File to send to the Mainframe does not exist
- 3 The cvis_fts DIP is not running, so a File Transfer can not occur
- 4 Hsend Wrong Usage error. Bad Arguments.
- 5 The Unix File to send to the Mainframe can not be accessed.
- 6 The Unix Message Queue Handler(mesgsnd) failed.
- 7 The Unix Message Queue Handler(mesgrcv) failed.

Synopsis

hrecv file=unix_file [sess=n] [orig=host_file] [opt=option_list | n]

Description

The **hrecv** command is used to send a file to the host via the `cvis_fts` DIP. The arguments for the **hrecv** command are:

- **file** – A mandatory argument. The **unix_file** parameter is the FULL PATH of the UNIX system file to be created or appended to by data from a host file. See Appendix D. for file name guidelines for file transfer.
- **sess** – An optional argument, where **n** is a Host Session ID(0-253). The LU mapped to the Host Session ID will be used for the file transfer. If the Host Session ID specified, **n**, is **NOT** of type **FTSCRT** and/or the Host Session ID is **NOT** “hassigned” to a Host Application, the file transfer will not occur.
- **orig** – An optional argument, where **host_file** is the origination file on the host. If this parameter is not specified, the ORIGINATION parameter value in the file `/vs/data/fts_config` is used.
- **opt** – An optional argument, where **option_list** is the list of option parameters or **n** (for no options). Options must be separated by a space. If an option list is provided, it is sent to the host as part of the `IND$FILE` file transfer program.

If **opt=n** the `PARAM1`, `PARAM2`, and `PARAM3` values in the `/vs/data/fts_config` file are not used. If this argument is missing(the default), the `PARAM1`, `PARAM2`, and `PARAM3` values in the `/vs/data/fts_config` file are used to append to the `IND$FILE` transfer program.

NOTE: If the **sess** argument is NOT specified, then the first available Host Session ID of type **FTSCRT**, will be used for the file transfer.

Return Values

- 1 No FTSCRT LU available for File Transfer
- 2 The Unix File to send to the Mainframe does not exist
- 3 The cvis_fts DIP is not running, so a File Transfer can not occur
- 4 Hsend Wrong Usage error. Bad Arguments.
- 5 The Unix File to send to the Mainframe can not be accessed.
- 6 The Unix Message Queue Handler(mesgsnd) failed.
- 7 The Unix Message Queue Handler(mesgrcv) failed.

APPENDIX D.

Filename Guidelines for File Transfer:

UNIX FILE

If Filename Contains	Syntax	Examples Original	Examples Converted
& ; < > () ' \ \ ' * ? [] # ~ †	Precede each special character with a backslash (\)	ix'yy'a\bcb	x\yy\`a\bcb
dollar sign (\$)	Precede \$ with backslash (\)	AB\$tmp	AB\$tmp
at sign (@)	Precede @ with backslash (\)	AB@tmp	AB@tmp
period (.)	No special syntax	s.xx.c	s.xx.c
Any character not shown above	No special syntax	Abcd	abcd

Mainframe/Host 3270 FILE

If Filename Contains	Syntax	Examples Original	Examples Converted
& ; < > () ' \' * ? [] # ~ †	Precede each special character with a backslash (\)	#AB~C*D E?cde#f*h	\#AB~C*D E\?cde#\f*h
dollar sign (\$)	Precede \$ with backslash (\) ‡	XXyy\$zz	XXyy\\$zz
at sign (@)	Precede @ with backslash (\) §	XXyy@zz	XXyy \@zz
period (.)	Enclose filename first with a backslash (\) followed by an apostrophe (') \' ††	s.xx.c	\.xx.c'
Any character not shown above	No special syntax	a123bcd	a123bcd

APPENDIX E.

Parameters in the `/vs/data/fts_config` file:

POLL_START

The `POLL_START` field specifies the time of day at which the Enhanced File Transfer System first polls the host. The default value is `-01:00`. This specifies that the Enhanced File Transfer System never polls the host, but sends files only when a request is made. If you change the `POLL_START` value from the default (`-01:00`) to any value between `00:00` to `24:00`, the Enhanced File Transfer System uses the new `POLL_START` value following the next polling period or the next **hsend** command.

NOTE:

You can not set the `POLL_START` field to a value greater than 24 hours (`24:00`). If you attempt to set the `POLL_START` field to a value greater than 24 hours, the value (`00:00`) is used.

POLL_FREQ

The `POLL_FREQ` field specifies the intervals at which the Enhanced File Transfer System polls the host. The default value is `04:00`. This specifies that polling will occur every 4 hours. If you set the `POLL_FREQ` field to a value less than or equal to `00:00`, the Enhanced File Transfer System polls only at `POLL_START`. For example, if the `POLL_FREQ` field is set to `-01:00` and the `POLL_START` is set to `01:00`, the Enhanced File Transfer System polls the host starting at `01:00`. If you set the `POLL_FREQ` field to a value greater than 24 hours, the Enhanced File Transfer System polls the host at this offset from `POLL_START`. For example, if you set the `POLL_START` to `02:30` and `POLL_FREQ` to 50 hours, the Enhanced File Transfer System polls the host at 4:30 a.m. on alternate days. If you change the `POLL_FREQ` field just after the most recent `POLL_START`, the Enhanced File Transfer System changes the `POLL_FREQ` at the next `POLL_START` or the next execution of the **hsend** command. For example, if `POLL_FREQ` is changed from `01:00` to `00:30` at 2:20 p.m., the `POLL_FREQ` does not change until the next

polling period begins at 3:00 p.m. or until the **hsend** command is executed.

POLL_END

The POLL_END field indicates the time of day after which the Enhanced File Transfer System will not poll the host. The default value is 24:00.

NOTE:

You may not set the POLL_END field to a value less than or equal to 00:00 or greater than or equal to 24:00. If you attempt to set POLL_END in this manner, the default value (-01:00) is used. This default value indicates that the POLL_END field should be ignored. Only the POLL_START field is used to determine whether to begin polling.

DESTINATION

The DESTINATION is a required field that specifies a dataset (file) name that is acceptable to the host. The DESTINATION specified in this field is used as the destination argument to the **hsend** command for sending a bundle to the host.

ORIGINATION

The ORIGINATION is a required field that indicates a dataset (file) name that is acceptable to the host. The ORIGINATION specified in this field is used as the origination argument to the **comreceive** command for receiving a bundle from the host.

APPL_FTS

The APPL_FTS field is used only if a program has been created to preprocess the bundle received from the host. The APPL_FTS field specifies the full path name of this program. The APPL_FTS default value is NULL. This default value indicates that a preprocessing program does not exist.

HOST_OS

The HOST_OS is a required field that indicates the name of a host application. You may specify either CICS, TSO, or CMS in this field. The HOST_OS default value is TSO.

FROM_HOST_DIR

The FROM_HOST_DIR field specifies the full pathname of the directory on the Avaya IR system where the Enhanced File Transfer System creates

a temporary directory to receive a bundle from the host and executes the batch file from each of these temporary directories. The FROM_HOST_DIR default value is **/usr/tmp**.

PARAM1, PARAM2, PARAM3

PARAM1, PARAM2, PARAM3 are optional fields that are reserved for any additional parameters. Note that the parameters are sent in order of PARAM1, PARAM2, and PARAM3 with a space in between them (for example, PARAM1 PARAM3). See Chapter 4, “Transferring Files,” of the CLEO 3270 User’s Guide for a list of file transfer options.

Verbose

The Verbose field indicates the level of detail of the **/tmp/fts_trace** file. A Verbose setting of 1 (the default) indicates the most detailed level. This file is used for debugging purposes. A Verbose setting of -1 instructs the Avaya IR system to turn off tracing.

Max_receive

The Max_receive field specifies how many times the Avaya IR system attempts to receive a bundle from the host during each polling cycle.

The Max_receive default value is 1. A Max_receive value of -1 specifies that the AVAYA IR system will never poll the host.

Changes in the configuration file take effect the next time the host is polled. To make the changes take effect immediately, perform the “Stopping the Voice System” and “Starting the Voice System” procedures

stop_vs

start_vs

You can also cause changes to take effect by using the **hsend** command. See the information on sending files to the host in this chapter for additional information on using the **hsend** command.

Examples of Enhanced File Transfer

Sending a Single ASCII File to the Host

Enter:

```
hsend file=< filename> [dest=filename on the host] [opt=ASCII  
CRLF]
```

NOTE:

The above example assumes that PARAM1 and PARAM2 are set to “ASCII” and “CRLF”, respectively, and DESTINATION is set to the host dataset name. If these values are not set, the <dest> and <opt> fields are not optional.

Receiving a Single ASCII File from the Host

1. Make sure that polling is on.
2. Create the file **/usr/tmp/appl** with the following contents, where /usr/tmp/hostfile is the file received from the host:
cp /usr/tmp/fts_tmp1/tmp1.pkg /usr/tmp/hostfile
3. Enter **vi /vs/data/fts_config**
 - a. Change the APPL_FTS parameter to **/usr/tmp/appl**
 - b. Change the FROM_HOST_DIR parameter to **/usr/tmp**
 - c. Change the PARAM1 parameter to ASCII and the PARAM2 parameter to CRLF
 - d. Change the ORIGINATION parameter to the filename on the host.