

# Cleo® Host Interface for SNA V9.1

## Quick Start Guide

### Ethernet

## CONVERSANT® V8/R9

#### Read this section first!

This Quick Start Guide contains information about installing the 6.0.7.14 version of the Cleo SNA for Avaya's CONVERSANT V8/R9 Version 9.1 Software using an Ethernet adapter, the Synchronous Host Interface Package, and the CleoSDIP Package on a Unixware 7 Operating System.

#### Important!

Read this document before installing and using the Cleo software. Refer to your Cleo SNA documentation for additional usage information. 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 [supportmi@cleo.com](mailto:supportmi@cleo.com).



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## **Cleo SNA Ethernet 6.0.7.14 Installation**

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Installation of a Cleo Enterprise Networking product requires that you obtain a License file(license.conf). The License file is available from Cleo Communications' Sales Department at (866)444-2536.

### **Software Prerequisites**

- UnixWare 7.1.1
- CONVERSANT V8/R9
- [Voice@Work](#) or Script Builder

### **Hardware Prerequisites**

- Intel PRO/100+ Ethernet PCI Adapter (MAP 40P)
- Force Computers Intel 2114 Ethernet Compact PCI Adapter (UCS 1000)

---

## Installing the Ethernet UNIX Network Driver

---

1. Login as *root*.
2. At the command prompt, type:
3. `ifconfig -a | grep ether`  
Look for an entry that has “ether” followed by the ethernet adapter’s 12 digit MAC address. If this entry is present, then the Ethernet UNIX network driver has been installed. Proceed to *Installing the Cleo SNA Software from CD* on page 8.

If the driver is not present, go to step 4 below.

4. Install the CONVERSANT V8/R9 “Ethernet Driver” software, using “netcfg”.  
At the command prompt, type:

```
# netcfg
```

netcfg will display "*Network Configuration Manager*". For navigating around the screens use **TAB** and **ARROW KEYS**

5. The *netcfg* window displays 3 buttons: *Hardware, Protocol, and View*, on the top on the left-hand side. Use the **TAB** key, if necessary, to move to and highlight the **Hardware** menu item. Use the **DOWN ARROW** key to see the following menu:  
*Add new LAN adapter*  
*(Remove network device)*  
*(Modify hardware configuration)*  
*(View hardware configuration)*  
*(Test Network Connectivity)*  
*(Switch to backup)*  
*(Revert to Primary)*  
*Exit*
6. Use the **DOWN ARROW** key and choose **ADD NEW LAN adapter**. A screen will appear with a list of adapters that should include  
\*Ethernet-Force Computers Intel 2114 - PCI ...  
Use the **DOWN ARROW** key, if necessary, to choose the Ethernet-Force Computers entry. Use the **TAB KEY** to position the cursor on the **CONTINUE** button and press **ENTER**.
7. After awhile, the "*Add Protocol*" screen will appear.

8. Use the **DOWN ARROW** key and choose **TCP/IP** and then use the **TAB** key to move onto the **ADD** button and press **ENTER**. The "*Internet Protocol Configuration*" screen will appear. It will have the following fields:

*Host name*  
*DHCP client* <> *Yes* <> *No*  
*Domain Name*  
*IP address*  
*Netmask*  
*Broadcast address*  
*Default router*  
*[Advanced Options]*

9. The *Host name* entry should be filled automatically with the value used in the *uname* command  
Ignore the *DHCP client* and *Domain Name* entries.  
Fill out the *IP address*(eg. 10.1.66.34)  
Fill out the *Netmask*(eg. 255.255.255.254)  
Fill out the *Broadcast address*(eg. 10.1.66.255)  
Fill out the *Default Router*(eg. 10.1.1.1)
10. Fill in all fields and use the **TAB** key to move to the "*Advanced Options*" menu item. Press **ENTER** and the "*Advanced Configuration*" menu will appear. Use the **TAB** key to move to the "*Pseudo ttys*" entry. Replace the current value with the value **256**. Use the **TAB** key to move to the **OK** button and press **ENTER**.
11. The "*Internet Protocol Configuration*" screen will reappear. Use the **TAB** key to move to the **OK** button and press **ENTER**.
12. After awhile, the "*Network Configuration Manager*" screen will appear with:  
*The following product was successfully modified*  
*TCP/IP*  
*Ethernet-Force Computers Intel 2114 - PCI...*  
With the cursor on the **OK** button, press **ENTER**. The first window will reappear with the display:  
*HW Ethernet-Force Computers Intel 2114 - PCI...*  
*\* - TCP/IP*
13. The cursor will be on the *Hardware* menu item. Use the **DOWN ARROW** key. A menu window will appear. Choose **EXIT**

## **Mounting the Cleo SNA Software CD**

1. Log in as *root*.
2. Create a mount-point for the CD, if one does not already exist. (/mnt is used as the mount-point in these instructions, but any empty directory can be used).

```
# mkdir /mnt
```

3. Insert the Cleo Host Interface V9.1 for CONVERSANT® V8/R9 CD into the CD ROM drive.
4. Mount the CD by entering the following command:

```
# /sbin/mount -F cdfs -r /dev/cdrom/cdrom1 /mnt
```

\*\*\*\*\*

## **Updating Cleo Software**

If you already have Cleo SNA software installed, including the **synchost** and **either vssnadip, Csnahdip, Cleosndip, Cleosdip** packages, and only want to upgrade to the new V 9.1 package, you can follow the **UPGRADE ONLY INSTRUCTIONS**, that follow, to finish the update, without removing the previous version.

If you already have Cleo SNA software installed, and want to re-install all of the Cleo SNA software, you will need to remove the existing packages by following the **REMOVE PREVIOUS VERSIONS OF CLEO SOFTWARE INSTRUCTIONS**, below, before proceeding on to the **Installing Cleo SNA Package section** to re-install the Cleo SNA software.

In order to determine if you only need to upgrade to the new **CleoSDIP** Version 9.1 package, instead of doing a complete install, run the following command

```
pkginfo | grep cleosna
```

If no output results from the command, you need to do a full installation by proceeding to the **Installing the Cleo SNA Package section**.

If the command resulted in information showing that the **cleosna** package is already installed, you may be able to do an upgrade only. However, run the following command

```
pkginfo | grep synchost
```

If no output results from the command, you need to do a full installation by proceeding to the **Installing Cleo SNA Package section**.

If the command resulted in information showing that the **synchost** package is already installed, you only need to upgrade to the new **CleoSDIP** by following the **UPDATE ONLY INSTRUCTIONS** below.

## UPGRADE ONLY INSTRUCTIONS

```
stop_vs
```

```
stop_hi
```

```
pkgadd -d /mnt/CleoSDIP
```

```
REBOOT...to determine if reboot is necessary see NOTE:  
below...
```

```
start_hi (if no re-boot was performed)
```

```
start_vs (if no re-boot was performed)
```

NOTE: A re-boot will be necessary if tuning is done when installing CleoSDIP. If no tuning is performed, then **NO** re-boot is necessary

The criteria for CleoSDIP performing tuning and requiring a reboot is:

- if there was no old **vssnadip, Csnahdip, Cleosndip, Cleosdip** found already installed. In that case CleoSDIP will do tuning, so a reboot will be necessary.



## REMOVE PREVIOUS VERSIONS OF CLEO SOFTWARE INSTRUCTIONS

stop\_vs

stop\_hi

pkgrm Cleosdip

pkgrm Cleosndip

pkgrm Csnahdip

pkgrm vssnadip

pkgrm synchost

pkgrm cleosna

The Removal of previous versions of Cleo Software is now complete.  
Proceed on to the **Installing the Cleo SNA Package section**.

---

---

## Installing the Cleo SNA Package

---

Start the installation of the SNA Package

```
# pkgadd -d /mnt/cleosna  
  
# pkgadd -d /mnt/cleodocs (optional documentation)
```

---

## Installing the Synchronous Host Interface Package from CD

---

1. If the voice system is currently running, then stop the voice system by entering the following command:

```
# stop_vs
```

NOTE: Ignore any SNA license errors at this time.

2. Make sure the Cleo Host Interface V9.1 for CONVERSANT® V8/R9 CD ROM is inserted in the CD ROM drive and mounted in /mnt
3. Install the Synchronous Host Interface by entering the following command:

```
# pkgadd -d /mnt/synchost
```

---

## Installing the CleoSDIP (Voice System HOST DIP Using SNA) Software from CD

---

1. If the voice system is currently running, then stop the voice system by entering the following commands:

```
# stop_vs
```

```
# stop_hi
```

2. Make sure the Cleo Host Interface for V9.1 CONVERSANT® V8/R9 CD is inserted in the CD ROM drive and mounted in /mnt
3. Install **CleoSDIP** by entering the following command:

```
# pkgadd -d /mnt/CleoSDIP
```

**Note:** When CleoSDIP is installed, kernel tuning may take place and the kernel will be re-built. Kernel tuning will not be necessary if Version 8.5 of the vssnadip package is already installed and you are upgrading to Version 9.1 of CleoSDIP.

**Note: DO NOT** reboot the UNIX operating system at this time. You must first complete *Instructions for Installing the License and Basic Instructions for Configuring the Host Interface for Cleo SNA Ethernet* before rebooting the system.

---

---

## Instructions for Installing the License

---

1. Cleo Communications will email you a license file, "license.conf". Place the license file on the CONVERSANT V8/R9 system(eg. /tmp/license.conf). Cleo Communications will also assign a Serial Number for your system. The Serial number will be included with your software CD, or can be obtained by calling Cleo Technical Support. You will be asked to enter your Cleo Serial Number when running the *snaaddlic* command.
2. Install the license file by entering the following command:

```
# /opt/sna/bin/snaaddlic
```

```
Please enter the Cleo SNA Serial Number
```

```
nnnnnn
```

```
Enter the full path name of the license file to install:
```

```
/tmp/license.conf      (use own path if other than /tmp)
```

```
NOTE: You will see the contents of your license  
displayed at this point.
```

```
Do you wish to continue?(y/n): y
```

3. Enter the following command:

```
# /sbin/umount /mnt
```

4. Remove the CD from the drive. Store the CD and the Software License file in a safe place. They are needed should you ever re-install the software.

## Instructions for Displaying/Modifying the Cleo Serial Number

---

1. If you have already entered the Cleo Serial Number while installing the License, you can move on to the next Section *“Basic Instructions for Configuring the Host Interface for Cleo SNA Ethernet”*
2. In order to display the current Cleo Serial Number, please enter the following command:

```
# /opt/sna/bin/cleoserial -r
```

```
The Cleo SNA Serial Number has a value of
```

```
==> 123456 <==
```

3. In order to modify the current Cleo Serial Number or store it on the system for the first time, please enter the following command:

```
# /opt/sna/bin/cleoserial -w 123456
```

```
Please confirm that you want to change the Cleo  
SNA Serial Number to the value
```

```
==> 123456 <==
```

```
?[y/n]
```

```
y
```

## **Basic Instructions for Configuring the Host Interface for Cleo SNA Ethernet**

---

Installation of the Cleo SNA Ethernet software and Unix Driver is now complete. To configure the Cleo SNA Ethernet software for 3270 sessions, please use the "*snaconfig*" program.

The "*snaconfig*" program can be run in 2 different ways to update the Cleo SNA Software's configuration.

**OPTION #1** consists of editing the **SNA ETHERNET CONFIGURATION TEXT** file(/etc/opt/sna/snaeth.txt) and then running the "*snaconfig*" program to update the Cleo SNA Software's configuration.

**OPTION #2** consists of running the "*snaconfig*" program, specifying command line parameters to update the Cleo SNA Software's configuration.

### **OPTION #1**

#### **Running "*snaconfig*" after editing the SNA ETHERNET CONFIGURATION TEXT file**

1. If the SNA Software is running, then Stop the SNA Software by entering the following commands:

```
# stop_vs
```

```
# stop_hi
```

2. Edit the default SNA ETHERNET CONFIGURATION TEXT(/etc/opt/sna/snaeth.txt) file supplying your Host system's specific parameters. Note: See Appendix A. for a definition of the Host Configuration Parameters in the **SNA ETHERNET CONFIGURATION TEXT** file. See Appendix B. for the file's

default values.

3. Update the Cleo SNA Software's configuration using the following command:

```
# snaconfig -E
```

where -E specifies Ethernet configuration

4. If this is a new installation, then go to the "**System Shutdown**" section.
5. If you are modifying an existing System configuration and need to restart the SNA Software, then enter the following commands:

```
# start_hi
```

```
# start_vs
```

## **OPTION #2**

### **Running "snaconfig" using parameters from the COMMAND LINE**

1. If the SNA Software is running, then Stop the SNA Software by entering the following commands:

```
# stop_vs
```

```
# stop_hi
```

2. Run the "*snaconfig*" command specifying the appropriate Host Parameters to create or modify current settings:

```
snaconfig -E [-P 1 / 2 / 3 / 4] [-MX dddd]
```

*[-XS0xxxxxxxx] [-XR 0xxxxxxxx]*

*[-LSAP nn] [-RSAP nn]*

*[-M xxxxxxxxxxxxx] [-FLIP Y/N] [-SESS d]*

Where

*-E* specifies **SNA over ETHERNET**

*-P 1 / 2 / 3 / 4* specifies **PORT # 1, 2, 3, or 4**

*-MX dddd* specifies **MAXDATA** decimal

*-XS 0xxxxxxxx* specifies **8 digit** hexadecimal

**IDBLK/NUM 0xxxxxxxx** to send

*-XR 0xxxxxxxx* specifies **8 digit** hexadecimal

**IDBLK/NUM 0xxxxxxxx** to recv

*-LSAP nn* specifies **2 digit** hexadecimal  
**LOCAL SAP**

*-RSAP nn* specifies **2 digit** hexadecimal  
**REMOTE SAP**

*-M xxxxxxxxxxxxx* specifies **12 digit** hexadecimal  
**REMOTE MAC ADDRESS**

*-FLIP Y / N* specifies **FLIP** the **MAC ADDRESS** bytes.  
NOTE: Flipping is sometimes necessary when going from an Ethernet to Token Ring network

*-SESS d* specifies the **NUMBER** of **LUs**

**NOTE:**

**APPENDIX A.** has parameter descriptions for configuring the SNA Software for Ethernet using the "*snaconfig*" command. **APPENDIX B.** has the default values for the Configuration file. **APPENDIX C.** has examples of configuring the SNA Software for Ethernet.

**EXAMPLE:**

```
snaconfig -E -M 400000001234
```

(to specify 128 LUs using all of the default Host system parameters, except use REMOTE MAC ADDRESS 400000001234 instead of 400000000000)

3. If this is a new installation , then go to the "**System Shutdown**" section.
4. If you are modifying an existing System's configuration, and need to restart the SNA Software, then enter the following commands:

```
# start_hi
```

```
# start_vs
```

## **System Shutdown**

---

1. Use the UNIX shutdown command to shut down the system.

```
# cd /
```

```
# shutdown
```

2. When the shutdown is complete, reboot the system.

## Removing SNA Software

---

1. Login in as *root*
2. Terminate any running instances of the 3270 product by entering the following command:  

```
# /opt/sna/bin/stop_hi
```
3. Remove the Cleo software packages by entering the following commands:  

```
# pkgrm CleoSDIP  
# pkgrm synchost  
# pkgrm cleosna  
# pkgrm cleodocs      (optional package that may not  
                       have been installed.)
```
4. Perform an orderly shutdown(eg. **/etc/shutdown**) and reboot the system.

## **APPENDIX A.**

---

### **HOST CONFIGURATION PARAMETERS**

The PARAMETERS defined in the "/etc/opt/sna/snasdlc.txt, /etc/opt/sna/snatkrn.txt, and /etc/opt/sna/snaeth.txt" file are:

**NOTE: There should be NO spaces around the "=" signs in the /etc/opt/snaxxxx.txt files.**

**SNA\_TYPE=S | T | E**

Where **S**=SNA over SDLC

**T**=SNA over TOKEN RING

**E**=SNA over ETHERNET

**PORT\_NUM=1 | 2 | 3 | 4**

Where **1** corresponds to

**SDLCP0** for SDLC (note the Link Station will be **SDLCL0**)

**TRSAP0** for Token Ring (note the Link Station will be **TRL0**)

**ETSAP0** for Ethernet (note the Link Station will be **ETHL0**)

**2** corresponds to

**SDLCP1** for SDLC (note the Link Station will be **SDLCL1**)

**TRSAP1** for Token Ring (note the Link Station will be **TRL1**)

**ETSAP1** for Ethernet (note the Link Station will be **ETHL1**)

**3** corresponds to

**SDLCP2** for SDLC (note the Link Station will be **SDLCL2**)

**TRSAP2** for Token Ring (note the Link Station will be **TRL2**)

**ETSAP2** for Ethernet (note the Link Station will be **ETHL2**)

**4** corresponds to

**SDLCP3** for SDLC (note the Link Station will be **SDLCL3**)

**TRSAP3** for Token Ring (note the Link Station will be **TRL3**)

**ETSAP3** for Ethernet (note the Link Station will be **ETHL3**)

**MAXDATA=dddd**

Where **dddd** is the decimal value for MAXDATA

**XIDS=0xn timer**

Where **0xn timer** is the 8 digit Hexadecimal

**IDBLK/NUM** to send

**XIDR=0xn timer**

Where **0xn timer** is the 8 digit Hexadecimal

**IDBLK/NUM** to receive

**LINE\_TYPE=LEASED | SWITCHED**      **(SDLC ONLY)**

**DUPLEX=HALF | FULL**      **(SDLC ONLY)**

**ENCODING=NRZ | NRZI**      **(SDLC ONLY)**

**CONSTANT\_RTS=Y | N**      **(SDLC ONLY)**

**POLL\_ADDR=hh**      **(SDLC ONLY)**

Where **hh** is the 2 digit Hexadecimal Polling Address(eg. C1)

**LOCAL\_SAP=hh**      **(Token Ring & Ethernet ONLY)**

**REMOTE\_SAP=hh**      **(Token Ring & Ethernet ONLY)**

Where **hh** is the 2 digit Hexadecimal Remote SAP

**MAC\_ADDR=xxxxxxxxxxxx**      **(Token Ring & Ethernet ONLY)**

Where **xxxxxxxxxxxx** is the 12 digit Hexadecimal Remote Mac Address

**FLIP=Y | N**      **(Ethernet ONLY)**

Where **Y** will flip the MAC\_ADDR bytes.

**SESS=d**

Where **d** is the total number of LUs to use.

## **APPENDIX B.**

---

### **DEFAULT VALUES for SNA ETHERNET CONFIGURATION TEXT FILE**

SNA\_TYPE=E  
PORT\_NUM=1  
MAXDATA=1929  
XIDS=0x05DFFFFFFF  
XIDR=  
LOCAL\_SAP=04  
REMOTE\_SAP=04  
MAC\_ADDR=400000000000  
FLIP=Y  
SESSIONS=128

## **APPENDIX C.**

---

### **EXAMPLES**

#### ***snaconfig -E***

This results in the Cleo SNA Software being configured for the default **SNA over ETHERNET** connection for 128 LUs.

#### ***snaconfig -E -SESS 32***

This results in the Cleo SNA Software being configured for the default **SNA over ETHERNET** connection for 32 LUs.

**Use "vi" to edit the /etc/opt/sna/snaeth.txt file to change the "MAC\_ADDR=400000000000" to "MAC\_ADDR=400000001234"**

#### ***snaconfig -E***

This results in the Cleo SNA Software being configured for the default **SNA over ETHERNET** connection, using a MAC ADDRESS of "400000001234" instead of "400000000000" for 128 LUs.

**OR**

The same result could be done by doing the following to modify the current SNA ETHERNET CONFIGURATION text file:

***snaconfig -E -M 400000001234***

**OR**

The same result could be done by doing the following to completely recreate the SNA ETHERNET CONFIGURATION text file:

***snaconfig -E -P 1 -MX 1929 -XS 0x05DFFFFFF -LSAP 04  
-RSAP 04 -M 400000001234 -FLIP Y -SESS 128***

## APPENDIX D.

---

### NEW “H” COMMANDS “hispy” and “cleoisy”

The “hispy” command allows a developer to interactively “spy” and “interact” with an assigned Host Session. As well as “capture” new Host Screens.

The “cleoisy” command is identical to “hispy”, except that FUNCTION KEYS are not needed to execute the PF1-PF24, and PA1-PA3, 3270 commands. This should help developers dialing into the Avaya IR R1 system using emulators that do not support Function Keys.

The “hispy” or “cleoisy” command can be executed from the Solaris Sparc 8 command line as follows:

**hispy n**

**cleoisy n**

(Where: “n” is a single Host Session ID or Host Session ID range (eg. 0-10))

The “**hispy**” and “**cleoisy**” command will do the following for each Host Session ID specified:

1. Display the following message and then launch “sb\_te” with the appropriate arguments to allow the user to **CAPTURE** any screen displayed by simply entering an “**ESC B**” key sequence.
2. The **CAPTURED** screen is **APPENDED** to the Screen Capture file of the [Voice@Work](#) or Script Builder application’s screen capture file(s)

**/vs/data/host/appl.sc & appl.nam** for V@W

**/att/trans/sb/appl/appl.sc** for Script Builder

of the Application currently assigned to the specified Host  
Session ID.

**NOTE:** If **NO** screen capture file(s) exist, for the Application, any  
Screen Captures will be placed in new screen file(s)

**/vs/trans/appl.sc**

**/vs/trans/appl.nam** (for [Voice@Work](#) only)

3. The **CAPTURED** screen can then be used later, by the Application Developer, to define Screen Identifiers and Fields of the screen and call flow **recovery, login, logout, or transaction** processing.
4. When the user is placed into the **sb\_te** program by the **”hispy/cleispy”** program, all the features of **“sb\_te”** are available to **NAVIGATE** through the Host Application screens, **AND CAPTURE SCREENS** along the way.
5. When finished **INTERACTING/CAPTURING** screens in **sb\_te**, use the **CTRL-X** key sequence to exit from the currently specified Host Session ID.
6. The **hispy/cleispy** command will exit after the Last/Only Host Session ID is exited with the **CTRL-X** key sequence.
7. The **hispy/cleispy** command can be entered **NO MATTER WHAT STATE** an **ASSIGNED** Host Session ID is in.
8. When the **hispy/cleispy** command is processing an **ASSIGNED** Host Session ID, the **HOST DIP(/vs/bin/vrs/agdip3270)** is not able to access that Host

Session ID.

9. The **hispy/cleispy** command is mainly intended to help Application Developers debug problems with the Host Interface portion of Voice Applications.

Therefore, **hispy/cleispy** will allow the Developer full freedom to manipulate a Host Session ID. If such manipulation results in placing a Host Session ID in an “awkward/broken/confused” state, please feel free to use the **hfree/hassign** commands to **FIX** such problems.

10. The **hspy** command is still available to simply display the current screen of an assigned Host Session ID.
11. Typical uses of “**hispy/cleispy**” are :
  - Capture an **UNRECOGNIZED** error screen that was never encountered before.
  - Capture screen(s) that were never encountered before until a non-common call flow was taken by the caller.
  - Navigate through Host Application Screens, capturing screens along the way, to define a “**recovery**” sequence to add to the current Application.
  - Test/develop Host call flows during development.

## **APPENDIX E.**

---

### **Host DIP PARAMATERS Configuration File**

#### **/vs/etc/default/agdip3270**

The Host DIP Parameters Configuration File, contains parameters that can change how the Host DIP operates.

The /vs/etc/default/agdip3270 configuration file is read each time the Host DIP is started/re-started.

The Host DIP is started/restarted whenever:

- The system is rebooted

- “start\_vs” is run

- “start\_hi” is run

- The agdip3270 process is killed while Voice System is active

Some of the Host DIP Parameters are either turned on or off by specifying “YES” or “NO” as a value for the parameter.

The default version of the Host DIP Parameters Configuration File is shown below:

---

**/vs/etc/default/agdip3270**

```
#
# Default values for the "agdip3270" daemon
process.

# SESSIONS_TO_START determines how many sessions
will be sending or
# getting screens at any one time per host3270
board.
# The default is to have the maximum of 32 sessions
concurrently
# interacting with the host.
SESSIONS_TO_START=32

# LOGOFF_TIMEOUT specifies the maximum amount of
time stop_vs will
# wait for any active sessions to be logged out
when the voice system
# is being stopped.
LOGOFF_TIMEOUT=60

# MAX_NUMBER_OF_LUS specifies the maximum number of
LUS that
# can be configured for a system.
MAX_NUMBER_OF_LUS=32

#it allows the host dip to send reset key when the
lu is input inhibited; and
#the host dip to send system request key when the
screen is SSCP or UNOWNED.
# DEFAULT IS NO
AUTORESET_LUS=NO

# The amount of time to pause after getting a
response from the host.
# This parameter is only in effect during the
login, logout, or
```

```
# recover sequences.
# No pausing is done while the LU is handling a
call.
# Setting this parameter to zero, will turn off
pausing completely.
PAUSE_BETWEEN_SCREEN=5

# The number of RECOVERY RETRIES to do before Doing
A POWER OFFON.
# Will do the POWER OFFON every multiple of this
many RECOVERY RETRIES.
RETCOUNT_TODO_POWEROFF=5

# The amount of STAGGER time between RECOVERING LUS
to be RESSTARTED.
#STAGGER_BETWEEN_RETRIES=5

# Whether or NOT to do a POWER OFFON sequence
instead of a SYS REQ AID KEY.
# Default is NO Set to YES To use POWEROFF.
#SYSREQ_IS_POWEROFF=NO

# Do Special UNFORMATTED SCREEN HANDLING. Some
UNFORMATTED screens do not
# allow a CLEAR KEY. To work around this problem
define a SCREEN with a
# FIELD NAME that has as part of the name the
string "unformat_f".
# When a SCREEN with a FIELD NAME CONTAINING
"unformat_f" is encountered,
# the DIP does a ERASE TO END OF FIELD command and
then positions the
# cursor at 1,1.
# Default is NO
#DO_UNFORMAT_SCR_SPECIAL=YES

# Do EOF(Erase to End of Field) from Beginning of
current field. To do
# this must name a field with the string
"EOF_begin" imbedded in the name.
```

```
# Default is NO
#DO_EOF_BEGIN_FIELD=YES

# Do EOF from where cursor is in current field. To
do this must name a
# field with the string "EOF_current" inbedded in
the name.
# Default is NO
#DO_EOF_CURRENT_FIELD=YES

# Do HARDFAIL recovery logic. Default is YES.
#HARD_FAIL_RECOVERY=NO

# HARDFAIL Retry Timer. Default is 300 seconds.

#HARDFAIL_RETRY_TIME=600

# WRONG SCREEN ACTION. If encounter a WRONG
SCREEN, If
# ACTION = 0 Handle as always
# ACTION = 1 Send Screen even if on wrong screen
# ACTION = 2 Force LU into recovery
#WRONG_SCREEN_ACTION=1

# IF Need to do RESERVE of LU across Applications
while processing 1
# transaction, then set
# DO_VXML_MULTIPLE_TRANS=1
# This means exiting an application during a call
won't leave transaction state.
# DEFAULT is DO_VXML_MULTIPLE_TRANS=0
#DO_VXML_MULTIPLE_TRANS=1

#
# IF doing 5250 and need to use AID KEY PAGE UP,
USE SELPEN AID KEY instead
# and set PGUP_IS_SELPEN=1. Default is
PGUP_IS_SELPEN=0
#PGUP_IS_SELPEN=1
```

```
# IF doing 5250 and need to use AID KEY PAGE DOWN,  
USE ATTENTION AID KEY instead  
# and set PGDWN_IS_ATTEN=1 Default is  
PGDWN_IS_ATTEN=0  
#PGDWN_IS_ATTEN=1  
  
# If doing 5250 and need to use TABs. For example  
to TAB out of a field  
# in order to do a Function Key. Then Turn on PA1  
to be N TABs,  
# PA2 to be N TABs, and PA3 to be N TABS. The  
default for all 3 options  
# is OFF, a value of zero(0).  
#PA1_IS_TAB = 1  
#PA2_IS_TAB = 2  
#PA3_IS_TAB = 3  
  
# If doing 5250 and need to filter out all  
attributes, but unprotected fields,  
# set FILTER_ATTR=1. Default is FILTER_ATTR=0  
#FILTER_ATTR=1  
  
# NOTE NOTE NOTE NOTE: IF DOING ANY OF THE  
UNCOMMENTED NEW FEATURES,  
# MUST INCLUDE THEM IN THE  
ORDER SHOWN!!!!
```

## **APPENDIX F.**

---

### **NEW CLEO EXTERNAL FUNCTIONS TO RESERVE and RELEASE LUs**

Cleo has developed 2 External Functions that can be used by an IVR Designer Host Application to allow an Application Developer the ability to reserve a Host Session and then determine when to release the Host Session(LU).

The 2 External Functions were originally developed for use with VXML applications that have a need to use an IVR Designer Host Application, by invoking CallScript to activate the Host Application. The Host Application uses the External Function Ret2vxml.

When the IVR Designer Host Application is called, the VXML application can pass arguments. One of the arguments could indicate to the Voice Application that it needs to Reserve a Host Session(LU) or Release a Host Session(LU).

If a Reserve Host Session(LU) is not done, then each time the Host Application is invoked, a different Host Session(LU) could be used and the Host Application would have to navigate back to the “transaction” based screen each time it is invoked.

To allow an IVR Designer Host Application to use the same Host Session(LU) when it is called multiple times by a VXML Application, the following 2 External Functions were developed.

#### **Cleo External Function Cleoresrvlu**

The *Cleoresrvlu* function instructs the Cleo Host DIP(DIP0) to reserve a Host Session(LU) for the input application name and voice channel, until a *Cleorelsu* function is called.

A successful call to this function results in the Host Session(LU) being exclusively associated with the caller’s input voice channel, and the Host Session(LU) is returned to the caller.

The *Cleoresrvlu* function is called with the following arguments:

**Hostapp**(In/Str) – Name of IVR Designer Host Application.

**Channel** (In/Number) = Voice Channel

**LUnum** (Out/Number) = LU number/Host Session reserved.

## **Cleo External Function Cleorelslu**

The *Cleorelslu* function instructs the Cleo Host DIP(DIP0) to release a Host Session(LU) for the input voice channel. A successful call to this function results in the Host Session(LU) being released.

The *Cleorelslu* function if called with the following arguments:

Channel (In/Number) = Voice Channel

## **Copying External Functions Cleoresrvlu and Cleorelslu to IVR Designer Desktop**

The *Cleoresrvlu* and *Cleorelslu* functions reside on the Cleo Host Interface CD and are also located in the /cleo/install directory on the AIR system.

The following files need to be ftp'd to the IVR Designer Desktop, in order to use these external functions with an IVR Designer Host Application. The files on the AIR system are: into the directory

**C:\Program Files\Avaya\Avaya IVR Designer\ExtFuncs**

**/cleo/install/Cleoresrvlu.bmp**

**/cleo/install/Cleoresrvlu.ef**

**/cleo/install/Cleorelsu.bmp**

**/cleo/install/Cleorelsu.ef**

These files need to be placed in the following directory on the IVR Designer Work Station PC:

**C:\Program Files\Avaya\Avaya IVR Designer\ExtFuncs**