

**Cleo™ CLEOEXT6 V4.6**  
**for AVAYA IR® R4.0/R3.0/R2.X/R1.X**  
**Host Interface Extensions**  
**Domestic Distribution**  
**Quick Start Guide**  
**Installation from a CPIO Image**

This Quick Start Guide contains information about installing the Avaya IR R4.0/R3.0/R2.X/R1.X version of the Cleo CLEOEXT6 V4.6 Host Interface Extensions Package.

The Extensions include Licensed support for the following:

- Model 2-5 Terminals
- Password Encryption
- National Language Support(NLS)

**Important!**

Read this document before installing and using the Cleo 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: 1.800.233.2536 or [supportEN@cleo.com](mailto:supportEN@cleo.com).

**CL|E|O**

## **November 2009**

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## **Cleo CLEOEXT6 Installation**

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### **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.X on Solaris 8/Solaris 10 or R1.X 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, vssnadip V2.4, Ctnhdip V2.5, Csnahdip 2.5, CLEOTDIP 4.2, CLEOSDIP 4.2, CLEOTDIP3 4.3, CLEOSDIP3 4.3, CLEOTDIP6 4.6, or CLEOSDIP6 4.6.

Before the CLEOEXT6 Extended features package can be installed, the following software must be installed and configured on the Avaya IR R4.0/R3.0/R2.X on Solaris 8/Solaris 10 or R1.X on Solaris 8 system having a connection to a 3270-mainframe host, using TN3270 protocol or SNA protocol.

### **Cleo Host Interface for TCP/IP or Cleo Host Interface for SNA**

**Cleo Host Dip Package vstndip – cleo vstndip V2.4 Package**

**OR**

**Cleo Host Dip Package Ctnhdip – cleo Ctnhdip V2.5 Package**

**Cleo TN3270 Software Package cleotn – cleo TN3270(E) V6.0.7.16**

**OR**

**Cleo Host Dip Package CLEOTDIP – cleo CLEOTDIP V4.2 Package**

**Cleo TN3270 Software Package cleotn – cleo TN3270(E) V6.0.7.16**

**OR**

**Cleo Host Dip Package CLEOTDIP3 – cleo CLEOTDIP3 V4.3  
Package**

**Cleo TN3270 Software Package cleotn – cleo TN3270(E) V6.0.7.16**

**OR**

**Cleo Host Dip Package CLEOTDIP6 – cleo CLEOTDIP6 V4.6  
Package**

**Cleo TN3270 Software Package cleotn – cleo TN3270(E) V6.0.7.17**

**OR**

**Cleo Host Dip Package vssnadip – cleo vssnadip V2.4 Package**

**OR**

**Cleo Host Dip Package Csnahdip – cleo Csnahdip V2.5 Packa ge**

**Cleo SNA Software Package cleosna64 – cleo SNA V6.0.7.15**

**OR**

**Cleo Host Dip Package CLEOSDIP – cleo CLEOSDIP V4.2 Package**

**Cleo SNA Software Package cleosna64 – cleo SNA V6.0.7.15**

**OR**

**Cleo Host Dip Package CLEOSDIP3 – cleo CLEOSDIP3 V4.3  
Package**

**Cleo SNA Software Package cleosna64 – cleo SNA V6.0.7.15**

**OR**

**Cleo Host Dip Package CLEOSDIP6 – cleo CLEOSDIP6 V4.6  
Package**

**Cleo SNA Software Package cleosna64 – cleo SNA V6.0.7.15**

**Note:** Before installing Cleo CLEOEXT6, please enter the following  
command:

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

## **Installing Cleo CLEOEXT6 from CPIO Image**

1. Login as *root*.

2. Enter the following commands:

```
# stop_vs
```

```
# stop_hi
```

3. 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
```

4. After downloading and unzipping the CPIO image of the Cleo Host Interface Extensions Software, move the resulting file(CleoEIR46cpio.Z) to the Avaya IR system and place it in the /export/cleo directory, and uncompress the file.

```
# cd /export/cleo
```

```
# uncompress CleoEIR46cpio.Z
```

5. Use the following command to move the Cleo Host Interface Extensions Software from the CleoEIR46cpio file.

```
# cpio -ivBdumc < CleoEIR46cpio
```

6. Start the Installation of the CLEOEXT6 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 <CLEOEXT6> [y,n,q]

```
# pkgadd -d /export/cleo/CLEOEXT6
```

7. When the installation of the CLEOEXT6 package completes, you will now be

able to acquire licenses for and use any combination of the following Host Interface Extensions;

- Support for Model 2-5 Terminals. Without this Extension, only Model 2 terminals are supported.
- Storage of Host Loginids/Passwords in Encrypted Files. Without this Extension, Loginids and Passwords are stored in Clear Text Files on the IVR system.
- Support for Natural Languages(NLS) used by the Host. Without this Extension, only US English Host data is supported.

## **Licensing for Model 2-5 Feature**

---

1. In order to use the Model 2-5 Feature, you will need to contact Cleo Communications to Obtain a License Key. You will need to provide Cleo with the Name of your Avaya System and the Cleo serial number of your system.

Obtain the Avaya System Name by entering the following command:

```
# uname -n
```

The system Name will be output.

Obtain the Cleo Serial Number of your Avaya System by entering the following command:

```
# cleoserial -r
```

The Cleo Serial Number will be displayed. If your system does not have a Cleo Serial Number, please contact Cleo Communications Technical Support to obtain a Cleo Serial Number. Then enter the serial number on your system, by entering the following command:

```
# cleoserial -w nnnnnn
```

Where: nnnnnn is the Cleo Serial Number.

2. To license the Model 2-5 Feature manually, using the Cleo Serial Number and Cleo License Key, proceed to step 3.

If you chose to License the Model 2-5 Feature using files placed on the IVR system, then please do the following:

Make sure the Cleo Serial Number has been entered on the system.

Place the Cleo License Key file, that you received electronically from Cleo, in a text file on the IVR system.

Then enter the following command, and proceed to the next section:

```
# cleomodlic -f FILE
```

Where: FILE is the full path to the Cleo Model 2-5  
License Key File.

3. To license the Model 2-5 Feature manually, enter the following command:

```
# cleomodlic
```

You will be prompted as follows. Please enter the correct information for both the serial number and License key prompts.

**License File has not been verified:**

**Enter the serial number:**

**Enter the license key:**

**The Cleo MOD2-5 Extensions Support Software is Properly Licensed**

**NOTE:** If the serial number or license key are not input correctly, or are wrong, you will be prompted again, as shown above. You may be prompted up to 10 times, before the program will stop.

## **Enabling and Using Model 2-5 Feature**

---

1. The Host DIP needs to be configured in order to enable the use of the Model 2-5 Feature.
2. Please enter the following command to Enable the Model 2-5 Feature:

```
# hdipconfig -M ON
```

**NOTE:** See Appendix A. for all the *hdipconfig* program options. If the need arises to disable the Model 2-5 Feature, please enter the following command:

```
# hdipconfig -M OFF
```

3. In order for the Host DIP to use the newly configured option, it is necessary to restart the Host Interface, by entering the following commands:

```
# stop_hi
```

```
# start_hi
```

4. You can now use the Model 2-5 Feature. You will need to assign a model type to each Host session. Model 2 is the default Model type. The following command can be used to change the model type of an individual or range of Host sessions:

```
# hmodconf -s [ a | a-b ] -m [ 2 | 3 | 4 | 5 ]
```

Where a = sessions number

a-b = range of session numbers

m = model type: 2, 3, 4 or 5

For example: hmodconf -s 5 -m 3

5. If you are using IVR Designer to develop your Host Application, your Host Application will now work correctly with Host Application's using MODEL types 2, 3, 4 or 5 screens.
6. Since the Script Builder program does not allow use of any MODEL type other than 2, MODEL type 3, 4 or 5 screens can not be defined using Script Builder. In order to define MODEL type 3, 4 or 5 screens and fields, a new command is available.

**define\_scr APPLICATION MODEL**

Where **APPLICATION** = Script Builder Application

**MODEL** = MODEL TYPE 2, 3, 4 or 5

Please see the “**Cleo define\_scr User's Guide**” for a complete description using the *define\_scr* command.

It is important to note that Script Builder Development is NOT POSSIBLE on an Avaya IR system. Before the *define\_scr* command can be used, the Script Builder Application files must be brought over from an older CONVERSANT SYSTEM and placed in the /att/trans/sb/applname directory on the Avaya IR system.

When the *define\_scr* command is used, the following 3 files in the /att/trans/sb/applname directory can be modified:

/vs/trans/sb/applname /host\_control

/vs/trans/sb/applname/symbols

/vs/trans/sb/applname/define\_scr

After using the *define\_scr* command, these 3 files will have to be taken back to the older CONVERSANT SYSTEM, before doing a VERIFY and INSTALL on that system to have the changes take affect. THEN, the resulting /vs/trans/applname.hs and /vs/trans/applname.T files will need to be moved over to the Avaya IR system.

## Licensing NLS(National Language Support) Feature

---

1. In order to use the National Language Feature, you will need to contact Cleo Communications to Obtain a License Key. You will need to provide Cleo with the Name of your Avaya System and the Cleo serial number of your system.

Obtain the Avaya System Name by entering the following command:

```
# uname -n
```

The system Name will be output.

Obtain the Cleo Serial Number of your Avaya System by entering the following command:

```
# cleoserial -r
```

The Cleo Serial Number will be displayed. If your system does not have a Cleo Serial Number, please contact Cleo Communications Technical Support to obtain a Cleo Serial Number. Then enter the serial number on your system, by entering the following command:

```
# cleoserial -w nnnnnn
```

Where: nnnnnn is the Cleo Serial Number.

2. To License the NLS Feature manually using the Cleo Serial Number and Cleo License Key, proceed to step 3.

If you chose to License the NLS Feature using files placed on the IVR system, then please do the following:

Make sure the Cleo Serial Number has been entered on the system.

Place the Cleo License Key file, that you received electronically from Cleo, in a text file on the IVR system.

Then enter the following command, and proceed to the next section:

```
# cleonlslic -f FILE
```

Where: FILE is the full path to the Cleo NLS License Key File.

3. To License the NLS Feature manually, enter the following command:

```
# cleonlslic
```

You will be prompted as follows. Please enter the correct information for both the serial number and License key prompts.

**License File has not been verified:**

**Enter the serial number:**

**Enter the license key:**

**The Cleo NLS(National Language Support) Software is Properly Licensed**

**NOTE:** If the serial number or license key are not input correctly, or are wrong, you will be prompted again, as shown above. You may be prompted up to 10 times, before the program will stop.

## Enabling NLS(National Language Support) Feature

---

1. The Host DIP needs to be configured in order to enable the use of the NLS Feature.
2. Please enter the following command to enable NLS.

```
# hdipconfig -T ON [TRANSTABLE]
```

where: TRANSTABLE is an EBCDIC/ASCII Translation table to use for your National Language Support.

**NOTE:** See Appendix A. for all the *hdipconfig* program options.

3. In order for the Host DIP to use the newly configured option, it is necessary to restart the Host Interface, by entering the following commands:

```
# stop_hi
```

```
# start_hi
```

4. You can now use the NLS(National Language Support) Feature.
5. If the need arises to DISABLE the NLS Feature, please enter the following command:

```
# hdipconfig -T OFF
```

## **Licensing Encrypted Password Feature**

---

1. In order to use the Encrypted Password Feature, it is necessary to install a 16 byte RC4 Encryption Key to use for this system. You will be prompted twice to enter the key, in order to verify the Encryption Key.
2. Please enter the following command:

```
# cleokey
```

**Please Enter the 16 Byte RC4 Encryption Key:**

**Please Enter the 16 Byte RC4 Encryption Key:**

**NOTE:** If the Encryption Key needs to be changed or re-entered, you can do so by running the *cleokey* program again:

```
# cleokey
```

The program will prompt for the 16 Byte RC4 Encryption Key twice.

If you change the 16 Byte Encryption Key, you will need to remove all existing application's encryption files(/vs/trans/applname.pwenc) and encrypt them again, using the *hlogidimport* and *hpwencrypt* utilities.

**NOTE:** The *cleokey* program will not echo the 16 Byte Encryption Key that is entered.

3. In order to use the Password Encryption Feature, you will need to contact Cleo Communications to Obtain a License Key. You will need to provide Cleo with the Name of your Avaya System and the Cleo serial number of your system.

Obtain the Avaya System Name by entering the following command:

```
# uname -n
```

The system Name will be output.

Obtain the Cleo Serial Number of your Avaya System by entering the following command:

```
# cleoserial -r
```

The Cleo Serial Number will be displayed. If your system does not have a Cleo Serial Number, please contact Cleo Communications Technical Support to obtain the Cleo Serial Number. Then enter the serial number on your system, by entering the following command:

```
# cleoserial -w nnnnnn
```

Where: nnnnnn is the Cleo Serial Number.

4. To License the Password Encryption Feature manually, using the Cleo Serial Number and Cleo License Key, proceed to step 5.

If you chose to License the Password Encryption Feature using files placed on the IVR system, then please do the following:

Make sure the Cleo Serial Number has been entered on the system.

Place the Cleo License Key file, that you received electronically from Cleo, in a text file on the IVR system.

Then enter the following command, and proceed to the next section:

```
# cleohpwlic -f FILE
```

Where: FILE is the full path to the Cleo Password Encryption License Key File.

5. To license the Password Encryption Feature manually, enter the following command:

```
# cleohpwlic
```

You will be prompted as follows. Please enter the correct information for both the serial number and License key prompts.

**License File has not been verified:**

**Enter the serial number:**

**Enter the license key:**

**The Cleo Encryption Software is Properly Licensed**

**NOTE:** If the serial number or license key are not input correctly, or are wrong, you will be prompted again, as shown above. You may be prompted up to 10 times, before the program will stop.

## **Enabling Encrypted Password Feature**

---

1. The Host DIP needs to be configured in order to enable the use of the Password Encryption Feature.
2. Please enter the following command to Enable Password Encryption:

```
# hdipconfig -E ON
```

**NOTE:** See Appendix A. for all the *hdipconfig* program options.

3. In order for the Host DIP to use the newly configured option, it is necessary to restart the Host Interface, by entering the following commands:

```
# stop_hi
```

```
# start_hi
```

4. You can now use the Password Encryption Feature. Please see the “**Cleo Encrypted Password User Guide**” for details on using the Password Encryption Feature(Section “Instructions for Using the Encrypted Password Feature” page 20).
5. If the need arises to DISABLE the Password Encryption Feature, please enter the following command:

```
# hdipconfig -E OFF
```

## **Cleo CLEOEXT6 Removal**

---

1. Login in as *root*.
2. Remove the CLEOEXT6 Package by entering the following command:  

```
# pkgrm CLEOEXT6
```
3. Upon removal of the CLEOEXT6 package, the /vs/data/hostsvc **“HOST SERVICES FILE”** will be converted back to its original form.

## APPENDIX A.

---

The *hdipconfig* program is used to set/unset Host DIP configuration parameters for the MOD2-5, the Encrypted Password, and NLS(National Language Support) Features. The syntax of the command is as follows:

```
# hdipconfig [-M ON|OFF ] [-E ON|OFF] [-T ON|OFF]
[TRANSTABLE]
```

-M - Model 2-5 Feature

ON - Enable Model 2-5 Feature

OFF - Disable Model 2-5 Feature

-E - Encrypted Password Feature

ON - Enable Encrypted Password Feature

OFF - Disable Encrypted Password Feature

-T - NLS Feature

ON - Enable NLS Feature

OFF - Disable NLS Feature

TRANSTABLE

An Optional EBCDIC/ASCII translation table.

TTDEFAULT - Default Translation Table US English.

TTBLANKS - Convert non US English characters to Blanks

TTHYPHENS - Convert non US English characters to Hyphens

TT1025\_88595 - Cryllic Russian Character Translation

Using IBM 1025 EBCDIC and ISO 8859\_5 ASCII

TT875\_88597 - Greek Character Translation

Using IBM 875 EBCDIC and ISO 8859\_7 ASCII

TT1026\_88599 - Turkish Character Translation

Using IBM 1026 EBCDIC and ISO 8859\_9 ASCII

TT838\_620 - Thai Character Translation

Using IBM 838 EBCDIC and TIS 620 ASCII

TT889\_620 - Thai Character Translation

Using IBM 889 EBCDIC and TIS 620 ASCII

TT938\_885911 - Thai Character Translation

Using IBM 938 EBCDIC and ISO 8859\_11 ASCII