

**Cleo[®] Host Interface for SNA
Quick Start Guide
SDLC
CONVERSANT[®] V6
Installing from a CPIO Image**

Read this section first!

This Quick Start Guide contains information about installing the 3.0.2 version of the LINKix SNA for Avaya's INTUITY Conversant V6 software, the SDLC FIFO/SIB software/hardware, the Synchronous Host Interface Package, and the Cleo Host Interface Package.

Important!

Read this document before installing and using the LINKix software. Refer to your LINKix 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 support@cleo.com.



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LINKix SNA SDLC 3.0.2 Installation

Software Prerequisites

- UnixWare 1.1
- Conversant V6
- Script Builder
- Cleo Host Interface software package files from CPIO Image moved to /cleo directory on IVR

Hardware Prerequisites

- FIFO/SIB Synchronous Host Interface Board

Note: If it is necessary to install the FIFO/SIB hardware in your Conversant system, refer to the FIFO/SIB Synchronous Host Circuit Card section of the Conversant System manual, version 6.0 (MAP/xx Maintenance) and/or Page 10 of this guide, Installing the FIFO/SIB Hardware.

CPIO IMAGE CONVENTIONS

Instructions in this document assume that the CPIO Image of the Cleo Host Interface software has been downloaded and that the CPIO image has been unzipped, resulting in the file(CleoSNAV6cpio). The CleoSNAV6cpio binary file then has to be moved to the Avaya Conversant V6 IVR system and placed in a directory called /cleo that was created in the IVR's root directory, using the following commands.

```
Login as "root"
```

```
# cd /
```

```
# mkdir cleo
```

Then the Cleo Host Interface Software needs to be moved from the CleoV6tncpio file, by issuing the following commands:

```
# cd /cleo
```

```
# cpio -ivBcdum < CleoSNAV6cpio
```

The following is a list of all the Cleo software packages available in the CPIO image:

```
Csnahdipv6.img  
synchostv6.img  
sibv6.img  
sibv6sup09.img  
tkrnv6.img  
tkrnv6sup06.img  
coprocv6.img  
coprocv6sup05.img  
sna128luv6.img  
sna128luv6sup08.img  
mgmtv6.img  
linkx3270v6.img
```

linkx3270v6sup07.img
linkx3770v6.img
linkxHTEv6.img
linkxHTEv6sup04.img
netmanv6.img

QUICK START INSTALLATION CHOICES

1. **FULL NEW INSTALLATION of Cleo Host Interface – SNA/SDLC**

Proceed to Section “FULL NEW INSTALLATION”

2. **FULL UPGRADE OF EXISTING INSTALLATION of Cleo Host Interface – SNA/SDLC**

Remove all existing Cleo Packages(See Appendix A)

Proceed to Section “FULL NEW INSTALLATION”

3. **ONLY UPGRADE EXISTING INSTALLATION of Cleo Host Interface – SNA/SDLC**

Proceed to Section “ONLY UPGRADE vssnadip”

ONLY UPGRADE Csnahdip

If you are upgrading only the Cleo Host Interface Csnahdip package you can issue the following pkgadd command to install it without removing the previous version.

NOTE: The CLEO HOST INTERACE package is now called Csnahdip.

pkgadd -d /cleo/Csnahdipv6.img

The kernel will be rebuilt as a result of the pkgadd. Shutdown the system and reboot.

The **Csnahdip** Package places enhancements to the Host DIP processing on the Conversant System. Please see the Release Notes for details of these enhancements.

The UPGRADE is COMPLETE!

FULL NEW INSTALLATION

Installing the FIFO/SIB Link Level

1. Login as *root*.
2. At the command prompt type:

```
pkgadd -d /cleo/sibv6.img
```

The packages that are available are displayed, and you are prompted to select the packages you wish to install.
3. Press **Enter** to specify all.
4. The software is installed from the image file. After all the Link Level files are installed, the installation script makes sure that the required STREAMS drivers are installed — STREAMS is a standardized UNIX communication technology that is used by the LINKix software. New drivers are added to the kernel. This step may take several minutes.
5. The installation script asks you to specify the board type. Specify FIFO/SIB.
6. The installation script displays a list of IRQs that are supported by the FIFO/SIB and the status of each (available or in use by another driver). Specify any available IRQ.
7. The installation script displays a list of I/O addresses that are supported by the FIFO/SIB and the status of each (available or in use by another driver). Specify any available IO address.
8. The hardware configuration information appears and you are asked if the configuration is acceptable. Unless you have made an error, answer **YES**.

If you made an error and answered **NO**, you are asked if you wish to retry the add board operation, answer **YES** and return to Step 5.

9. The hardware information is added to the kernel configuration. A message appears indicating that the board configuration was successfully added. You are then asked if you wish to add another board. Answer **NO**.
10. The final steps of the Link Level installation are performed and you are notified that the installation of the package was successful.
11. Install the sib supplement by entering the following command, and following the pkgadd instructions:

```
pkgadd -d /cleo/sibv6sup09.img
```

Installing the SNA Level

1. Install the SNA Level package by entering the following command, and following the pkgadd instructions:

```
pkgadd -d /cleo/sna128luv6.img
```

2. Install the SNA Level Supplement package by entering the following command, and following the pkgadd instructions:

```
pkgadd -d /cleo/sna128luv6sup08.img
```

3. The installation script automatically performs required kernel tuning and information is added to the kernel configuration. You are then asked to verify or change the current SDLC Frame Size.

The value specified for the SDLC Frame Size must match the value of the MAXDATA parameter in the NCP Gen at the host (the LINKix software will not operate if the SDLC Frame Size and the MAXDATA value do not match). Make any required changes.

4. The LINKix.cfg utility informational message appears. Press **Enter** to continue.
5. At this point, a message appears and you are asked if you wish to link the kernel now. Answer NO.
6. Install the SNA Level supplement package by entering the following command, and following the pkgadd instructions:

```
pkgadd -d /cleo/sna128luv6sup08.img
```

7. The kernel is linked. This will take several minutes. When the link process is finished, press **ENTER** to continue.

Installing Feature Packages

1. Install the Feature Level 1 package (ID: linkix_3270) by entering the following command:

```
pkgadd -d /cleo/linkx3270v6.img
```

2. Install the linkix_3270 supplement by entering the following command:

```
pkgadd -d /cleo/linkx3270v6sup07.img
```

3. Install the Feature Level 1 package (ID: linux_mgmt) by entering the following command:

```
pkgadd -d /cleo/mgmtv6.img
```

4. Install the Feature Level 2 package (ID: linkix_hte) (HLLAPI Terminal Emulator) by entering the following command:

```
pkgadd -d /cleo/linkxHTEv6.img
```

5. Install the linkix_hte supplement by entering the following command:

```
pkgadd -d /cleo/linkxHTEv6sup05.img
```

6. Install the Feature Level 1 package(ID:linkix_netma) by entering the following command:

```
pkgadd -d /cleo/netmanv6.img
```

Installing the Synchronous Host Interface Package for LINKix SNA SDLC

1. Enter the following command to install the Synchronous Host Interface:

```
pkgadd -d /cleo/synchostv6.img
```

Installing the Csnahdip (Voice System Using SNA3270) CLEO HOST INTERFACE Software

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

```
# stop_vs  
# comstop
```

2. Install Csnahdip by entering the following command:

```
# pkgadd -d /cleo/Csnahdipv6.img
```

4. Installation of the SNA 3270, Synchronous Host Interface and Csnahdip components is complete.

Note: DO NOT reboot the UNIX operating system at this time. You must first complete *Configuring the Host Interface for LINKix SNA SDLC* before rebooting the system.

Configuring the Host Interface for LINKix SNA SDLC

Installation of the LINKix SNA SDLC software is now complete. To configure the LINKix SNA SDLC software, please refer to the "Host Configuration" section of Chapter 3, "Voice System Administration," of the CONVERSANT® System, Version 6.0 Administration Manual.

Briefly, here is the sequence of commands:

1. Run "cvis_menu"
2. Select "Configuration Management"
3. Select "Host Configuration"
4. Select "SDLC Protocol"
5. Select "Add"
 - Enter Connection Name: **SDLC1**
 - Enter Card Number: **1**
 - Enter Line Type: **leased (or switched)**
 - Enter Node ID to Send: **8 digit Host Network Value**
 - Enter Encoding: **nrz (or nrzi)**
 - Enter Constant Carrier: **NO (or YES)**
 - Enter Poll Address: **2 Hex Digit Network PU address(eg. C1)**
 - Enter LU: **2-129 for 128 LUs**
6. Save the Configuration

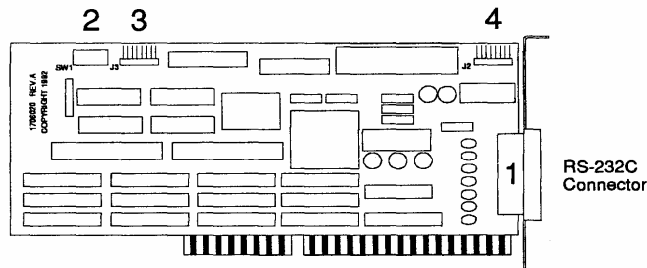
System Shutdown

1. Use the UNIX shutdown command to shut down the system.
2. When the shutdown is complete, power off the system.
3. If necessary, install the FIFO/SIB hardware, following the instructions in the next section.



Installing the FIFO/SIB Hardware

Adapter boards must be protected from electrostatic discharge. Before touching the FIFO/SIB board, first touch a metal object to discharge any static electricity that may be built up in your body. Handle the board from the sides to avoid contact with any components on the board. Failure to protect the board in this way can cause product degradation or failure.



FIFO/SIB Board

Pre-Installation Configuration

The FIFO/SIB is a synchronous communications board that can be installed in a 16-bit or 8-bit bus slot. It is shipped with a default configuration that will work in many installations. In the figure above, the following areas, some of which can be modified to match your specific environment, have been identified:

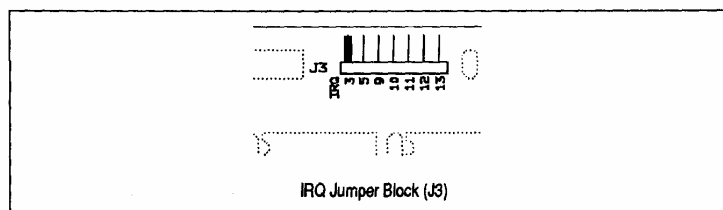
1. The RS-232 connector. Your external synchronous modem (or modem eliminator) is connected to this male DB25 connector.
2. The I/O switch block (SW1). The I/O address is set using switches 1 through 3 of this switch block (switch 4 is not connected). Each I/O address specifies the starting address for a 16-byte I/O buffer (e.g., 250-25F; 260-26F).

The table that follows shows how the switch settings should be set for the various I/O addresses.

I/O address	Switch			
	1	2	3	4
250	On	On	off	X
260	off	off	On	X
2B0	On	off	On	X
2E0	off	On	On	X
(default) 380	off	off	off	X
3A0	On	off	off	X
3E0	off	On	off	X
Disabled	On	On	On	X

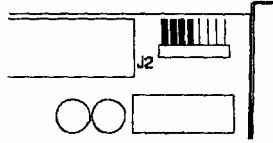
No other board in the PC should use the same address as the FIFO/SIB board. Any conflict will prevent the FIFO/SIB and LINKix from operating properly.

- The IRQ jumper block (J3). The interrupt request line (IRQ) setting is determined by the placement of the jumper within this group of pins. The IRQ can be set to a value of 3, 5, 9, 10, 11, 12, or 13. The default is IRQ 3. The possible IRQ settings are shown in the illustration that follows.



In order to use the extended IRQs (greater than 9), the FIFO/SIB must be installed in a 16-bit bus slot. Also, if you want to use IRQ 9, make sure that IRQ 2 is also unused on your system.

- The clocking jumper (J2). This jumper, containing 8 pairs of jumper pins numbered 1 through 16, determines which device will provide the clocking for the transmit and receive lines (lines 15 and 17) of the FIFO/SIB RS-232 interface. By placing the jumpers over specific groups of pins, the clocking can be specified as follows:



Transmit clocking provided by: External device
Receive clocking provided by: External device
(factory default)

This is the factory default setting. This setting will work in almost all situations. When operating at 64K baud, 15 feet is the maximum cable length supported by this setting.

Installing the FIFO/SIB Board

Caution: Before you remove the cover of your PC's system unit, be sure to turn off the power to all external accessories and the PC itself. Disconnect all AC power sources by unplugging the computer and any attached accessories. Failure to follow these procedures could cause dangerous voltage to remain in the PC chassis that could injure you and/or damage your computer or FIFO/SIB board and void your warranty. Even when the ON/OFF switch of your computer is OFF, dangerous voltage can still remain unless all power cables are disconnected.

After removing all power connectors from your PC, you're ready to install the FIFO/SIB board.

1. Following the instructions in your PC's manual, remove the system unit cover.
2. Locate an open full- or half-length expansion slot. Remove the screw that holds the expansion slot cover in place and take out the expansion slot cover. Save the screw for later use.
3. Align the board in the card guide and carefully insert the FIFO/SIB board into the expansion slot.
4. Secure the board in place by replacing the retaining screw that was removed in Step 2.
5. Replace the system unit cover and reattach all the power cables.
6. Attach an external modem (or modem eliminator) to the DB25 connector on the FIFO/SIB board. The cable must have, at a minimum, pins 1 through 8, 15, 17, and 20 connected in a straight-through fashion (no crossovers).

The FIFO/SIB hardware installation is now complete.

APPENDIX A.

REMOVING Cleo Host Interface Software

1. Login in as *root*.
2. Stop the Voice System

```
# /vs/bin/util/stop_vs
```

3. If the Csnahdip package has been installed, to remove the package, do so by entering the following command:

```
# pkgrm Csnahdip
```

4. If the vssnadip package has been installed, to remove the package, do so by entering the following command:

```
# pkgrm vssnadip
```

5. Terminate any running instances of the 3270 product by entering the following command:

```
# /vs/bin/util/stop_hi
```

6. Remove the Cleo Software packages(including any supplements), in the following order by entering the following commands:

```
# pkgrm netman  
# pkgrm linkxhte03  
# pkgrm linkxHTE  
# pkgrm l3270s07  
# pkgrm linkx3270  
# pkgrm mgmt
```

```
# pkgrm sna128lu  
# pkgrm sib09  
# pkgrm sib
```

7. Shutdown the system.
8. Reboot the system.