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**1. Introduction** 

2. CTU Installation

**3. CTA Installation** 

4. Troubleshooting



1<sup>st</sup> Part CTI Manual

This manual has been developed by NEC Infrontia LTD It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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# **Document History**

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## Contents

#### **Section 1: Introduction**

General Description. Requirements.

#### Section 2: Installing the CTU

Installing the CTU Adapter Aspire Programming. Installing The CTU Driver Windows 2000 Installing The CTU Driver Windows XP Uninstalling The Driver Configuring The Driver

#### Section 3: Installing the CTA

Installing the CTA Adapter Aspire Programming. Installing The CTA Driver Windows 2000 Installing The CTA Driver Windows XP Uninstalling The Driver Configuring The Driver

#### **Section 4: Troubleshooting**

Troubleshooting CTA Troubleshooting CTU

#### **General Description**

 $1^{st}$  Party CTI is designed to allow you to connect an Aspire phone to a PC. It is aimed for smaller office of between 1 and 10 users.

There are two types of interface, serial and USB. These can be used to allow call control from the PC. Answer the phone, clear down and out dial from your PC. The USB interface can also be used as a PC sound device, this can allow calls to be recorded using software on the PC.

#### **Minimum PC Requirements**

Before installing the CTA or CTU driver, please ensure the PC meets the minimum requirements.

CPU	Intel® Pentium 300MHz or higher
Memory	128MB or more
HDD	250MB of available disk space
For a CTA Only	An available 9 way serial port
For a CTU Only	An available USB port
Operating System	Microsoft® Windows® 2000 Professional
	Microsoft® Windows® XP Professional

#### **Screenpop Support**

For Screenpop support, please contact NEC Infrontia technical support.

### **Installing the CTU**

- 1. Caution! To avoid damage to the CTU unplug the line cord from the phone. You will also need to unplug the AC adapter from the CTU unit.
- 2. If only one adapter is to be installed on the phone, the adapter should be installed on the right hand side of the phone (beneath the handset.) Using a flat-head screwdriver, remove the plastic punch-out plate covering the connector.
- 3. Set the dipswitches as shown in the diagram.



4. Position the adapter with the connector as shown below.



- 5. Hook the two plastic prongs into the bottom of the phone.
- 6. Push the connector into place. The top latch on the top of the adapter should lock into place when it is properly positioned.
- 7. Ensure that the ESIU port (that the system phone will be plugged into) is set to Not Used in Program 10-03-01.
- 8. Connect the power to the CTU
- 9. Plug the line cord back into the system phone
- 10. The ESIU port will be automatically assigned to the correct type (Program 10-03-01)

The USB cable connected to the CTU must pass two times through (one turn) the ferrite sleeve supplied to comply with EMC requirements.



# Aspire Programming

The CTU should be automatically detected when installed. You can check this by going into programme command 10-03-01. It should be detected as a type 4, CTA/CTU.

Command 15-02-19 must be set to 0 for CTI for the CTU to initialise.

#### **Installing the Driver in Windows 2000**

#### Do Not Connect the USB Cable from the Keyset to the PC until Instructed to do so.

To be able to install the CTU driver, you must first logon to the PC with Administrative privileges.

1. You must then extract the installation files, double click the files named 'CTU USB Driver.exe'

To unzip all files in CTU USB D specified folder press the Unzip	river.exe to the button.	Unzip
Unzin to folder:		Run WinZip
c:\ctuusbtemp	Browse	Close
Verwrite files without prompting		About
		Help

2. Choose a location to extract the files to and click unzip. Once complete you will receive and confirming 11 files have been unzipped.

in exeractor		×
) unzipped succ	essful:	y
ОК		
	) unzipped succ	) unzipped successful

3. Browse in the folder the files were extracted to and open the CTU USB Driver folder. Run the Setup from the Disk1 folder.

Disk1						<u>_ 0 ×</u>
File Edit View Favorites T	ools Help					
🖙 Back 🔹 🤿 👻 🔂 🔯 Searc	h 🔁 Folders	3 B B	$\times \mathfrak{O} \equiv$	•		
Address 🔂 Disk1						
Disk1	data1.cab	data1.hdr	data2.cab	ikernel.ex_	layout.bin	
Setup.exe Application Modified: 05/09/2001 02:23	Setup.bmp	Setup.exe	Setup.ini	Setup.inx	ver.dat	
Size: 55.0 KB						

4. At the service software screen, select CTI Connection and click Next.



5. At the welcome screen, click next



6. Select the folder the driver will be installed into and click next.

select

7. Once the install has complete you see the following screen. Click finish



8. You will now be asked in connect your USB cable from the CTU to the PC. Ensure you push the USB connector firmly into the USB socket.



9. Depending on the configuration of your PC, you may receive the following warning message, if you do, click 'Yes.'



10. When you connect the USB cable to your PC, Windows will start to install the drivers for the CTU.

Found Ne	w Hardware
	NEC-I CTU-R*
Found Ne	w Hardware
Ż	NEC-I CTU Communications Port
Installing	

11. The CTU will now initialise, this may take between one and two minutes.



12. Once the CTU has initialised, you will receive the Aspire Telephony Service Provider configuration window.

pire Telephor	y Service Provid	ler		?
Telephony Syste	em   Power Manag	ement		
– Telephony Sy Company Nam Product Versio	stem Information — e: NEC Infrontia C n: 1.02	orporation.	Operation Mo Normal Single Lir Elite / Xe	nde — ne
- Line Informati Adapter Type:	on	Extension No.	: 200	
Port:	СОМ7	Extension Nar	me: EXT 200	
Baud Rate: RefreshDate:	- 12-20-2004 15:15	Line	e Info Refresh	]
	Port Se	tting	Line Configura	ation
	OK	Car	ncel H	lelp

13. You may be prompted to restart the PC, if prompted are, the CTU will not function correctly until you have restarted.

### Installing the Driver in Windows XP

#### Do Not Connect the USB Cable from the Keyset to the PC until Instructed to do so.

To be able to install the CTU driver, you must first logon to the PC with Administrative privileges.

1. You must then extract the installation files, double click the files named 'CTU USB Driver.exe'

To unzip all files in CTU USB D specified folder press the Unzip	)river.exe to the 5 button.	Unzip
Unzin to folder:		Run WinZip
c:\ctuusbtemp	Browse	Close
Verwrite files without prompting		About
		Help

2. Choose a location to extract the files to and click unzip. Once complete you will receive and confirming 11 files have been unzipped.



3. Browse in the folder the files were extracted to and open the CTU USB Driver folder. Run the Setup from the Disk1 folder.

🗀 Disk1					
File Edit View Favor	ites Tools	Help			
🕝 Back 🔹 🕥 🗸 💋	Sear	rch 😥 Folders 🛛 🎹 🕶			
Address 🛅 C:\ctuusbtemp	I\CTU USB Dri	ver\Disk1			💌 🄁 Go
File and Folder Tasks	*	layout BIN File 1 KB	Set 473 Bitn	<b>up</b> 3 × 182 nap Image	<b></b>
Other Places	¥	Setup InstallShield (R) Setu	up Launcher	up nfiguration Settings	
Details	*	InstallShield Software	e Corpora 📑 1 Ki	В	
		Setup INX File 135 KB	DAT 1 KI	T File B	-

4. At the service software screen, select CTI Connection and click Next.



5. At the welcome screen, click next



6. Select the folder the driver will be installed into and click next.

select

7. Once the install has complete you see the following screen. Click finish



8. You will now be asked in connect your USB cable from the CTU to your PC. Connect the USB cable firmly in to the PC.

Connecti	ng USB Cable	×
•	After setup finished, plug in CTU Adapter with your	PC.
	ОК	

9. The Found new hardware wizard will start. Make sure Install the software automatically is selected and click next.

Found New Hardware Wiz	ard
	Welcome to the Found New Hardware Wizard
	This wizard helps you install software for:
	NEC-I CTU Communications Port
2 had	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do?
	<ul> <li>Install the software automatically [Recommended]</li> <li>Install from a list or specific location (Advanced)</li> </ul>
	Click Next to continue.
	< <u>B</u> ack <u>N</u> ext > Cancel

10. The Hardware Installation window will appear, click on Continue Anyway.



11. The CTU will now initialise, this may take between one and two minutes.



12. Once the CTU has initialised, you will receive the Aspire Telephony Service Provider configuration window.

	I'r ower manag	cilionel	
Telephony Sy	stem Information -		Operation Mode
Company Nam	e: NEC Infrontia C	orporation.	• Normal
Product Versio	n: 1.02		C Single Line
			C Elite / Xen
Port:	COM7	Extension Nam	e: EXT 200
Port:	COM7	Extension Nam	ie: EXT 200
Baud Rate:	-		
RefreshDate:	12-20-2004 15:15	Line	Info Refresh
	Port Se	tting	Line Configuration

13. You will now need to restart the PC to complete the installation



## Uninstalling the Driver

- 1. Before uninstalling the drive, make sure you disconnect the USB cable from the PC.
- 2. Go into Start / Programs / Aspire Telephony Driver (USB) and click Uninstall Aspire Driver

👼 Aspire Telephony Driver(USB)	L 🤣	Help
		Readme
		Uninstall Aspire Driver

3. To confirm you wish to uninstall, at the prompt click OK.



4. To complete the uninstall, select 'Yes, I want to restart my computer now'



## **Configuring The CTU Driver**

To look at the setup of the CTU driver, go into 'Start / Settings / Control Panel / Phone and Modem Options.' Select the 'Advanced' tab and double click the 'Aspire Telephony Service Provider.'

oire Telephor	y Service Provi	der		?
elephony Syste	em   Power Manag	jement		
Telephony Sy Company Nam	stem Information e: NEC Infrontia C	Corporation.	Operation Mode	,—
Product Versio	n: 1.02		○ Single Line ○ Elite / Xen	
Line Information	on	·	201	
Adapter Type: Port:	СОМЗ	Extension No.: Extension Nam	e: EXT 201	
Baud Rate:	·		Info Refresh	
	Port Se	etting	Line Configuratio	n
		Com	al I Hal	1

You should also be aware that when the CTU is installed, it installs as a sound device, similar to a sound card. This means you can use your phone as a PC speaker. In doing this when your phone is playing a sound, it is busy. You can also use the CTU to record any sounds that are played through the phone.

To check or change the settings in Windows XP go into Start / Settings / Control Panel / Sounds and Audio Devices, then select the Audio tab. From there you can then change the default device for Sound Playback and sound recording.

Volume	Sounds	Audio	Voice   I	Hardware
Sound	olayback ——			
0	Default device	¢		
9)	Intel(r) Integra	ited Audio		•
	NEC-I CTU-R Intel(r) Integra	ted Audio		
Sound	ecording			
	Default device	c		
18	NEC-I CTU-R	×		-
		Volume	Advar	iced
MIDI m	usic playback			
<b>4</b>	Default device	c		
<u>nin</u>	Microsoft GS	Wavetable SW	/ Synth	-
		Volume	Abo	ut
l llan e	nlu default devi	ces		

To Check or change the settings in Windows 2000 go into Start / Settings / Control Panel / Sounds and Multimedia.

ounds	Audio	Hardw	are	
Sound I	Playback ——			
Ch.	Preferred dev	ice:		
VV	NEC-I CTU-F	3×		•
	ESS Maestro			
	NEC-ICIU-F	i^ -		
Sound I	Recording			
	Preferred dev	ice:		
18	NEC-I CTU-F	٩×		-
				<u> </u>
			Volume	Advanced
MIDI M	usic Playback			
pelan.	Preferred dev	ice:		
nen	Microsoft GS	Wavetab	le SW Synth	-
			Volume	About
<b>Z</b> 11				
r Use c	inly prefetted d	evices		

When the CTU is installed, it installs as a sound device. This means it can play and record sounds.

If you click on the 'Power Management' tab you can enable or disable power management. You can also choose if to enable 'Hibernation mode' when you are on a call or not.

spire Telephony Service Provider	?
Telephony System Power Management	
Power Management Support	
Detail	
Don't enter Sleep or Hybernation mode when the active call exists	

#### Installing the CTA

- 1. Caution! To avoid damage to the CTA unplug the line cord from the phone. The CTA does not require power!
- 2. If only one adapter is to be installed on the phone, the adapter should be installed on the right hand side of the phone (beneath the handset.) Using a flat-head screwdriver, remove the plastic punch-out plate covering the connector.
- 3. Set the dipswitches as shown in the diagram.



4. Position the adapter with the connector as shown below.



- 5. Hook the two plastic prongs into the bottom of the phone.
- 6. Push the connector into place. The top latch on the top of the adapter should lock into place when it is properly positioned.
- 7. Ensure that the ESIU port (that the system phone will be plugged into) is set to Not Used in Program 10-03-01.
- 8. Plug the line cord back into the system phone
- 9. The ESIU port will be automatically assigned to the correct type (Program 10-03-01)

The RS232 cable connected to the CTA must pass two times through (one turn) the ferrite sleeve supplied to comply with EMC requirements.



# Aspire Programming

There are two modes that the CTA can be used in. CTI mode and SMDR mode (Direct Print Mode.) The baud rate must also be set to 19200

Program 15-02-19 = 0 should be set for CTI mode. Program 15-02-20 = 2 should be set for 19200.

#### Installing the CTA Driver Windows 2000 / Windows XP

To be able to install the CTA driver, you must first logon to the PC with Administrative privileges.

- 1. Before you start the installation, ensure the RS232 cable is connected to the PC and the telephone.
- 2. You must then extract the installation files, double click the files named 'CTA Driver.exe'

To unzip all files in CTA_Driver.exe folder press the Unzip button.	to the specified	Unzip
Unzin to folder:		Run WinZip
c:\ctatemp	Browse	Close
Overwrite files without prompting	J	About
		Help

3. Choose a location to extract the files to and click unzip. Once complete you will receive and confirming 11 files have been unzipped.

WinZip S	elf-Extractor	×
11 file(	s) unzipped succes	sfully
	ОК	

4. Browse in the folder the files were extracted to and open the CTA Driver folder. Run the Setup from the Disk1 folder.

🔂 Disk1						
File Edit View Favorites Tool	s Help					
年 Back 🔹 🔿 👻 🔂 🧟 Search	Folders	3 B B	X 10   III	•		
Address 🔂 Disk1						
Disk1	data1.cab	data1.hdr	data2.cab	ikernel.ex_	layout.bin	
Setup.exe Application Modified: 05/09/2001 02:23 Size: 55.0 KB	Setup.bmp	Setup.exe	Setup.ini	Setup.inx	ver.dat	

5. At the service software screen, select CTI Connection and click Next.



6. At the welcome screen, select the location you wish to install to and click next

			_
ose Destination Location			And a
Select folder where Setup will install files.			
Setup will install Aspire Telephony Driver(RS)	in the following fo	older.	
Fo install to this folder, click Next. To install to another folder.	o a different folder	, click Browse a	and select
Destination Folder			
Destination Folder C:\Program Files\NEC\Aspire Telephony			Browse
Destination Folder C:\Program Files\NEC\Aspire Telephony Shield		]	Browse

7. You will now be prompted to select the com port the CTA will be connected to.

Port	•	ОК
COM1		

8. The CTA will now initialise, this may take between one and two minutes.



9. When the CTA is initialised, information about the extension and Com port will be displayed in the following windows. If the extension number and extension name are correct, this means the PC can communicate to the CTA.

elephony Syste	em Power Mana	gement		
-Telephony Sy Company Nam Product Versio	istem Information - ie: NEC Infrontia I in: 1.11	Corporation.	Operation I Normal C Single C Elite / 2	Mode Line Ken
- Line Informati	on		. 200	
Adapter Type: Port:		Extension No.	: 200 me: FXT 200	
Baud Rate:	19200	-	110. jel 11 200	
RefreshDate:	1-7-2005 13:34	Line	e Info Refresh	
	Port S	etting	Line Config	uration

10. Once complete, click finish.



## Uninstalling the CTA Driver

- 1. Before uninstalling the drive, disconnect the serial cable from the PC.
- 2. Go into Start / Programs / Aspire Telephony Driver (RS) and click Uninstall Aspire Driver



3. To confirm you wish to uninstall, at the prompt click OK.

Confirm Unistall			<u>×</u>
Are you sure want to completely ren	nove 'Aspire Tel	ephony Driver(RS) :	Software' and all of its components?"
	ОК	Cancel	

4. To complete the uninstall, select 'Yes, I want to restart my computer now'



## **Configuring the CTA Driver**

Should you wish to reconfigure the driver to use another Com port or to use with another extension, you can reconfigure the driver as follows.

Go into Start / Settings / Control Panel / Phone and Modem options. Select the Advanced tab, listed in the providers should be 'Aspire Telephony Service Provider.' To change to another Com port, click Port Settings. A window will pop up allowing you to select another Com Port.

The display will refresh and redetect the extension periodically. If you want to do in immediately refresh, you should click 'Line Info Refresh.'

tem Information		Operation Mode
e: NEC Infrontia Corporation.		Normal
n: 1.02		C Single Line
		C Elite / Xen
COM7	Extension Nar	ne: EXT 200
•		
12-20-2004 15:15	Line	Info Refresh
Dort Col	tting	Line Configuration
	Information	tem Information           μ           NEC Infrontia Corporation.           χ           1.02           n           CTU           Extension No.           COM7           Extension Nar           12-20-2004 15:15

If you click on the 'Power Management' tab you can enable or disable power management. You can also choose if to enable 'Hibernation mode' when you are on a call or not.

pire Telephony Service Provider	?
Telephony System Power Management	
Power Management Support	
Detail	î
Don't enter Sleep or Hybernation mode when the active call exists	

# Troubleshooting

General				
Problem	Solution			
The 'Aspire Telephony Service	It is most likely there has been a problem with the			
Provider' option is not displayed	installation of the driver. Try the installation again, make			
in Control Panel / Phone and	sure you are logged on to the PC with administrative			
Modem Options / Telephony /	privileges			
Advanced				
СТА				
Problem	Solution			
Unable to communicate with the CTA	1. Check the Serial cable is firmly connected to the Keyset and the PC.			
	2. Check PRG 10-03-01 to be sure the CTA is being detected by the Aspire.			
	3. During the installation of the CTA driver, the CTA 'Initialises', if the phone / Serial cable is unplugged when the driver is installed it may not be detected. Try restarting the PC.			
	4. Check the serial lead is connected to the correct com port.			
	5. Check to make sure no other applications are using the same Com Port. For example a modem could be using the same Com Port.			
	CTU			
Problem Solution				
Unable to communicate with the CTU.	1. Check that the USB cable is firmly plugged into the phone and PC.			
	2. Ensure that the power is plugged into the CTU.			
	3. Check PRG 10-03-01 to be sure the CTU is being detected by the Aspire.			
	4. During the installation of the CTU driver, the CTU 'Initialises', if the phone / USB cable is unplugged when the driver is installed it may not be detected. Try restarting the PC.			
	5. Check in Device Manager under 'Ports (Com and Lpt )' and make sure that 'NEC-I CTU Communications Port' exists. Also check there is not an exclamation mark against the device.			

Unable to record audio in an application	1. Check to see that your operating system is configured to use the CTU for sound recording, as detailed in
"FF	'Configuring the CTU' section of the manual.
	2. Another application is using the audio device. Close
	down the application and try again.
Unable to Play sounds through	1. Check to see that the PC is correctly configured to use
the Keyset	the NEC CTU for sound playback. For more
	information, please see the 'Configuring the CTU'
	section of the manual.