



# **IP Office CTI Link**

## **Installation Manual**

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# Introduction

## Overview

The IP Office CTI Link is available in Lite and Pro versions, which provide run-time interfaces for applications to use. The Software Development Kit (SDK) provides documentation on both Lite and Pro interfaces for software developers.

Both the Lite and Pro offerings are the same program. The additional functionality provided by IP Office CTI Link Pro is enabled when the CTI Link Pro licence key is installed (see page 5).

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### IP Office CTI Link Lite

IP Office CTI Link Lite is a free of charge offering, and contains the following components:

- **TAPILink Lite**  
This component implements Microsoft TAPI, and allows programs to control one telephone line per PC. It provides simple CTI, including answer, hangup, make-call, transfer, and screen-popping functionality. Please see the *TAPILink Developers Guide* for more details on *TAPILink Lite* and *TAPILink Pro*.
- **DevLink Lite**  
This component implements an interface for collecting CDR (Call Data Record) or SMDR information from the IP Office system unit. This provides an event per telephone call received or made, and is useful for call costing, call billing, and call recording applications.

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### IP Office CTI Link Pro

IP Office CTI Link Pro includes all of the Lite functionality. It contains the following components:

- **TAPILink Pro**  
This component provides both first-party and third-party TAPI control of telephony devices. In addition to the functionality provided by *TAPILink Lite*, it also adds the ability to receive information on ACD queues, hunt groups, and provides additional advanced functionality. Please see the *TAPILink Developers Guide* for more details on *TAPILink Lite* and *TAPILink Pro*.
- **DevLink Pro**  
This component provides a real-time event stream in addition to the CDR interface. The real-time event stream provides information on telephone activity as and when that activity occurs, and also provides information on trunk activity.

# Installation and Configuration

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## Overview

The IP Office CTI Link installation primarily concerns the installation and configuration of the TAPI driver, both of which are detailed in the following paragraphs. Installation of the DevLink files is also detailed. For programming details, refer to the TAPI Link Developer's Guide and the DevLink Programmer's Guide respectively.

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### Installing TAPILink and DevLink

The IP Office TAPI Service Provider and the DevLink files are both installed from the IP Office User CD.

Perform the following:

1. Insert IP Office User CD (self installing).
2. The *Workstation Installation Wizard - Welcome* screen displayed.
3. Click on **Next** and *Identifying Your Control Unit* screen displayed.
4. Enter both your *User Name* (or select from existing) and *User Password*. Click on **Next**.
5. The *Ready to Install* screen displayed. Click on **Finish**.
6. A progress bar is displayed and on completion the *Welcome to the InstallShield Wizard for IP Office User Suite* screen is displayed. Click **Next**.
7. The *Choose Destination* screen displayed.
8. Either accept default or click **Browse** and select your own destination folder. Click **Next**.
9. On the *Select Components* screen tick the *TAPI* box and, if required, the *DevLink* box (see **Notes** below).  
**Do not** change any other setting.
10. The *Select Program Folder* screen is displayed.
11. Either accept default or enter a new folder name. Click **Next**.
12. A progress bar is displayed and on completion the *InstallShield Wizard Complete* screen is displayed.
13. Click **Finish** to exit from install routine.

**Notes:** 1. DevLink is installed and used in conjunction with 3<sup>rd</sup> party applications, e.g. Call Costing software. For more information please refer to the IP Office CTI Link DevLink Programmer's Guide.

### Installing the CTI TAPILink Pro License

You do not need an IP Office TAPILink Pro license in order to use the TAPI driver. The license provides the following additional functionality:

- Third Party mode
- ACD Queue monitoring

These are described in *Configuring the TAPI Driver* below. To install the TAPI license, proceed as follows:

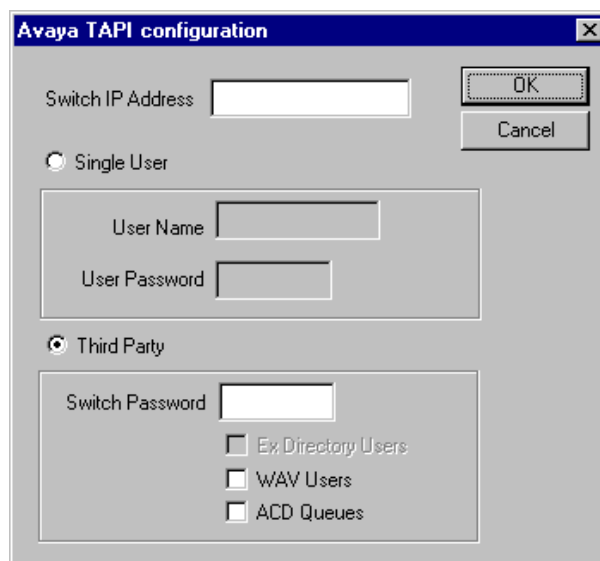
1. Run the IP Office Manager. This is installed from the IP Office Admin CD.
2. Load the configuration file for your IP Office.
3. Select **License** on the tree in the left hand window.
4. Right-click in the right hand window and select **New**.
5. Type in the 32 character license key.
6. The IP Office Manager will indicate whether the license is valid or not.

### Configuring the TAPI Driver

TAPI Service Providers are configured using a Windows Control Panel applet. The name of the applet is not the same across all versions of Windows. The following table indicates the name of the applet and the tab that must be selected within the applet:

Windows Version	Control Panel Applet	Tab
2000	Phone and Modem Options	Advanced
ME	Telephony	Telephony Drivers
98	Telephony	Telephony Drivers
NT4	Telephony	Telephony Drivers
95	Telephony <small>Note: TAPI 2.1 must be installed on Windows 95 and can be down laded from the Microsoft web site.</small>	Telephony Drivers

Run the appropriate applet for your version of Windows and select the tab indicated above. You will be presented with the list of TAPI Service Providers that you have installed. The IP Office TAPI Service Provider will be in the list of installed TAPI Service Providers. Select **Avaya GSS TAPI Service Provider** and press **Configure**. You will be presented with the **Avaya TAPI Configuration** menu screen.



The IP Office TAPI Service Provider can operate in Single User mode or Third Party mode. A license must be purchased to enable the Third Party mode. Note that the unlicensed version will not prevent you from selecting this option but it will not work.

Single User mode means that the TAPI application can control and/or monitor a single telephony device. Third Party mode means that the TAPI application can control and/or monitor all telephony devices on a particular IP Office unit.

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### **Single User Mode**

Enter the IP address of the IP Office unit in the box labelled **Switch IP Address**. Select the **Single User** option. Enter the user name and password for the extension that is to be monitored and/or controlled by TAPI. Normally, the user name will be the name of a person associated with a physical telephone extension.

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### **Third Party Mode**

Enter the IP address of the IP Office unit in the box labelled **Switch IP Address**. Select the **Third Party** option. Enter the password for the switch. This is the same password that is entered in Manager when loading the configuration of the switch.

By default, Third Party mode will provide a TAPI line for every physical extension attached to the IP Office. The checkboxes associated with Third Party mode enable additional entities to be monitored and/or controlled by TAPI.

### **ACD Queues**

The IP Office can be configured to queue incoming calls, which are being presented to a group of internal users. For example, if your IP Office were configured with a group of call center agents, you would want to queue an incoming call until an agent becomes available to take the call.

Checking the ACD Queues checkbox provides lines to monitor and/or control the queue of calls against a group.

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## **Configuring IP Office for TAPI**

This section describes the configuration of the IP Office using the Manager application. There are two ways in which you can use TAPI with IP:

1. If your application monitors telephones but does not control them, then there is no configuration necessary.
2. If your application controls telephones, you should configure all users that will be controlled as an **off-hook station**. This will cause the user's phone to return to the idle state when a call is hung up using TAPI. Without this option set, the phone will remain in a disconnected state until the phone is hung up manually. The off-hook station checkbox can be found on the Telephony tab of the User's setting in Manager.

# Glossary

This section contains the list of all abbreviations and acronyms used in this document.

ACD	Automated Call Distributor
CD	Compact Disk
ID	Identifier
I/O	Input / Output
IP	Internet Protocol
ISDN	Integrated Standard Digital Network
ME	Millennium Edition (Windows)
MSDN	Microsoft Developer Network
PSTN	Public Switched Telephone Network
SDK	Software Developer's Kit
TAPI	Telephony Applications Programming Interface
TSP	Telephony Service Provider
TSPI	Telephony Service Provider Interface
UUI	User-to-User Information

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