



Installing IP Office CTI TAPI Link

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Chapter 1: CTI TAPI installation

IP Office Computer Telephony Integration (CTI) link is available in two versions, Lite and Pro. These versions 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 versions are the same programs. After you install the CTI Link Pro licence key, additional functionality is activated. For more information on programming, see [IP Office TAPI Link Developer's Guide](#) and [Avaya IP Office™ Platform DevLink Programmer's Guide](#).

- **IP Office CTI Link Lite** – IP Office CTI Link Lite is a free of charge application and contains the following component:
 - TAPILink Lite: Implements Microsoft Telephony Application Programming Interface (TAPI) and allows programs to control one telephone line on each computer. TAPILink Lite supports simple CTI, including answer, hang up, make call, transfer, and screen-popping functionality. For more information on TAPILink Lite and TAPILink Pro, see [IP Office TAPI Link Developer's Guide](#).
- **IP Office CTI Link Pro** – IP Office CTI Link Pro includes all of the Lite functionality and the following components:
 - TAPILink Pro: Provides both first-party and third-party TAPI control of telephony devices. In addition to the functionality provided by TAPILink Lite, the Pro version also adds the ability to receive information on ACD queues, hunt groups, and provides additional advanced functionality.
 - DevLink Pro: Provides a real time event stream that includes information on trunk activity and telephone activity as and when that activity occurs.

IP Office CTI licenses

You need licenses to use the TAPI driver in third party mode, but you do not need licenses for first-party mode.

- **CTI Link Pro:** Enables support for third-party TAPI mode, which includes TAPILink Pro and DevLink Pro.
- **Wave User:** Enables streaming of wav files using TAPILink Pro for third party voice applications. Licenses are required for each user. TAPI wav calls use system data channels from the same pool that is used for voice mail ports.

Enabling IP Office TAPI support


About this task

Support for TAPI is controlled by the IP Office system security settings. From IP Office Release 9.1 onwards, TAPI support is off by default.

Procedure

1. Start IP Office Manager.
2. Select **File > Advanced > Security Settings**.
3. Select the IP Office system and click **OK**.
4. Enter a user name and password of a user account with security configuration access.
5. Click **System** and select the **Unsecured Interfaces** tab.
6. In the list of **Application Controls**, select the **TAPI/DevLink3** option.

The TAPI software installation also uses the **TFTP Directory Read** option to obtain a list of users from the IP Office system. If not enabled, the installation displays `Failed to retrieve user list from IP Office`. However, you can enter user details manually. If you enable **TFTP Directory Read** to simplify TAPI installation, you should disable the option afterwards unless it is also specifically required by the TAPI application being supported.

7. Click **OK**.
8. To save the updated security settings, click .

Installing the software

About this task

The IP Office TAPI service provider and the DevLink files are both installed from the IP Office User CD.

Procedure

1. Insert the IP Office User CD and open `setup.exe`.
2. Select the language and click **Next**.
3. When the Welcome page is displayed, click **Next**.
4. Enter a user and company name for the installation.
These are used for reference only.
5. Select whether you are installing the software for all users of the computer or only the current user.

6. Click **Next**.
7. Select the destination folder for the installation or use the default folder, and click **Next**.
8. From the **Setup Type** menu, click **Custom > Next**.
9. Select one of the following components:
 - **TAPI2**: Installs the files for support of TAPI 2.1.
 - **TAPI3**: Installs the files for support of TAPI 3.0.
 - **DevLink**: DevLink is installed and used in conjunction with some third party applications.
10. Click **Next**.
11. Do one of the following:
 - If the system displays the error message `Failed to retrieve user list from IP Office`, click **OK** and enter the required details manually.
 - Select the IP Office system and enter the user name and password, and then click **Next**.

The system displays a summary of what is to be installed.
12. Click **Next**.
- The software installation proceeds.
13. Select whether you want to restart the computer now or later.
14. Click **Finish**.

Configuring the TAPI driver

About this task

TAPI service providers are configured with Windows Control Panel.

Procedure

1. Start the Control Panel.
2. Select **Phone and Modem**.
3. Select the **Advanced** tab.
4. Select **Avaya IP Office TAPI Service Provider** and click **Configure**.

You can see separate service providers for TAPI2 and TAPI3, but they share the same IP Office settings.
5. Enter the IP address of the IP Office control unit, in the **Switch IP Address** field.
6. Complete one of the following:
 - **Single User Mode**

- **Third Party Mode**

7. Click **OK** and then **Close**.

Related links

[TAPI configuration field descriptions](#) on page 9

TAPI configuration field descriptions

The TAPI application can be configured in either Single User or Third Party mode. The mode selected alters the settings shown.

Single User Mode

Name	Description
Switch IP Address	Specifies the IP address of the IP Office control unit.
Single User	In this mode, the TAPI application on the computer controls and monitors a single telephony device. You must enter the user name and password for the extension that is to be monitored and controlled by TAPI.

Third Party Mode

Name	Description
Switch IP Address	Specifies the IP address of the IP Office control unit.
Third Party	In this mode, the TAPI application on the computer controls and monitors all telephony devices on IP Office. To operate in third party mode, IP Office requires the appropriate TAPI licenses. This mode enables the settings below.
Switch Password	You must enter the system password as set in the IP Office system security settings.
Ex Directory Users	TAPI control is used for users set as ex-directory in the IP Office configuration.
WAV Users	Users with a user name prefixed with "TAPI" are wav users. During calls, the IP Office system streams audio to wav users. The audio streaming requires a wave driver licence instance for each user. The TAPI wav audio stream uses the same IP Office data channel as the voicemail ports.
ACD Queues	IP Office can be configured to queue incoming group calls waiting to be answered. Use ACD Queues to monitor and control the queue of calls against a group.

Configuration of IP Office users for TAPI

Configure IP Office for TAPI as follows:

- **Configuration for TAPI monitoring:** If the application monitors telephones but does not control the telephones, configuration is not necessary.
- **Configuration for TAPI control:** If the application controls telephones, configure all controlled users as off-hook stations. This causes the phone to return to the idle state when a call is hung up using TAPI. If you do not set this option, the phone remains in a disconnected state until you hang up the phone manually. You can find the **Off-Hook Station** check box on the Telephony tab of the user settings in Manager.

Chapter 2: Wave driver installation

The wave driver is a software emulation, with no associated hardware, and must be installed manually. The wave driver is called `nawave32.drv`. During the installation of TAPI, the appropriate version for the operating system is copied to the computer, but not installed.

Installing the wave driver on Windows XP

Procedure

1. From the Control Panel, select **Add Hardware**.
Wait for your computer to search for new devices.
2. Select **Yes, I have already connected the hardware**.
3. Select **Add a new hardware device**.
4. Select **Install the hardware that I manually select from a list (Advanced)**.
5. Select **Sound, video and game controllers**.
6. Click the **Have Disk** button.
7. Navigate to the folder `C:\Program Files (x86)\Avaya\IP Office\TAPI2\wave32` or `C:\Program Files (x86)\Avaya\IP Office\TAPI3\wave32`.
8. Select the file `oemsetup.inf`.

Next steps

Verify driver mapping.

Related links

[Mapping drivers](#) on page 12

Installing the wave driver on Windows 2000

Procedure

1. From the Control Panel, select **Add/Remove Hardware**.
Wait for your computer to search for new devices.
2. Select **Add New Device**.
3. Select **No I want to select hardware from a list**.
4. Navigate to the folder `C:\Program Files (x86)\Avaya\IP Office\TAPI2\wave32` or `C:\Program Files (x86)\Avaya\IP Office\TAPI3\wave32`.
5. Select the file `oemsetup.inf`.

Next steps

Verify driver mapping.

Related links

[Mapping drivers](#) on page 12

Mapping drivers

About this task

After installing the wave driver, ensure that the wave driver is only used by TAPI. Otherwise, the system starts using the wave driver inappropriately. For example, the system might start playing `ding.wav` when you receive an email. Use the following procedure after installing the wave driver on Windows XP and Windows 2000.

Procedure

1. From the Control Panel, select **Sounds and Audio Devices**.
2. Ensure that no preferred devices use the WIDWOD32 driver.
3. To prevent the drivers from been used explicitly:
 - a. Go to **Sounds and Audio Devices > Hardware > Avaya IP400 32 bit WIDWOD Driver > Properties**.
 - b. Select **Do not map through this device**.

Related links

[Installing the wave driver on Windows XP](#) on page 11

[Installing the wave driver on Windows 2000](#) on page 12

Chapter 3: Other Resources

Documentation

For a complete list of IP Office documents, see [Avaya IP Office™ Platform Manuals and User Guides](https://support.avaya.com) at support.avaya.com.

Finding documents on the Avaya Support website

Procedure

1. Go to <https://support.avaya.com>.
2. At the top of the screen, type your username and password and click **Login**.
3. Click **Support by Product > Documents**.
4. In **Enter your Product Here**, type the product name and then select the product from the list.
5. In **Choose Release**, select the appropriate release number.

The **Choose Release** field is not available if there is only one release for the product.

6. In the **Content Type** filter, click a document type, or click **Select All** to see a list of all available documents.

For example, for user guides, click **User Guides** in the **Content Type** filter. The list only displays the documents for the selected category.

7. Click **Enter**.

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Related links

[Additional Help and Documentation](#) on page 17

Viewing Avaya Mentor videos

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About this task

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Additional IP Office resources

In addition to the documentation website (see [Additional Manuals and User Guides](#) on page 17), there are a range of website that provide information about Avaya products and services including IP Office.

- **Avaya Website** (<https://www.avaya.com>)

This is the official Avaya website. The front page also provides access to individual Avaya websites for different regions and countries.

- **Avaya Sales & Partner Portal** (<https://sales.avaya.com>)

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- **Avaya IP Office Knowledgebase** (<https://ipofficekb.avaya.com>)

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- **Avaya Support** (<https://support.avaya.com>)

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- **Avaya Support Forums** (<https://support.avaya.com/forums/index.php>)

This site provides a number of forums for discussing issues.

- **International Avaya User Group** (<https://www.iuag.org>)

This is the organization for Avaya customers. It provides discussion groups and forums.

- **Avaya DevConnect** (<https://www.devconnectprogram.com/>)

This site provides details on APIs and SDKs for Avaya products, including IP Office. The site also provides application notes for 3rd-party non-Avaya products that interoperate with IP Office using those APIs and SDKs.

- **Avaya Learning** (<https://www.avaya-learning.com/>)

This site provides access to training courses and accreditation programs for Avaya products.

Related links

[Additional Help and Documentation](#) on page 17

Support

Go to the Avaya Support website at <https://support.avaya.com> for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Documentation changes since last issue

Date	Issue	Changes
October 6, 2014	12b	Refreshed document to match IP Office User CD build 4.2.56.
March 4, 2015	12c	Made general updates.
June 2, 2015	12d	Corrected minor typos in license descriptions.
July 8, 2015	12e	Added a note to enable TAPI support in security settings.

Chapter 4: Additional Help and Documentation

The following pages provide sources for additional help.

Related links

[Additional Manuals and User Guides](#) on page 17

[Getting Help](#) on page 17

[Finding an Avaya Business Partner](#) on page 18

[Additional IP Office resources](#) on page 14

[Training](#) on page 13

Additional Manuals and User Guides

The [Avaya Documentation Center](#) website contains user guides and manuals for Avaya products including IP Office.

- For a listing of the current IP Office manuals and user guides, look at the [Avaya IP Office™ Platform Manuals and User Guides](#) document.
- The [Avaya IP Office Knowledgebase](#) and [Avaya Support](#) websites also provide access to the IP Office technical manuals and users guides.
 - Note that where possible these sites redirect users to the version of the document hosted by the [Avaya Documentation Center](#).

For other types of documents and other resources, visit the various Avaya websites (see [Additional IP Office resources](#) on page 14).

Related links

[Additional Help and Documentation](#) on page 17

Getting Help

Avaya sells IP Office through accredited business partners. Those business partners provide direct support to their customers and can escalate issues to Avaya when necessary.

If your IP Office system currently does not have an Avaya business partner providing support and maintenance for it, you can use the Avaya Partner Locator tool to find a business partner. See [Finding an Avaya Business Partner](#) on page 18.

Related links

[Additional Help and Documentation](#) on page 17

Finding an Avaya Business Partner

If your IP Office system currently does not have an Avaya business partner providing support and maintenance for it, you can use the Avaya Partner Locator tool to find a business partner.

Procedure

1. Using a browser, go to the [Avaya Website](#) at <https://www.avaya.com>
2. Select **Partners** and then **Find a Partner**.
3. Enter your location information.
4. For IP Office business partners, using the **Filter**, select **Small/Medium Business**.

Related links

[Additional Help and Documentation](#) on page 17

Additional IP Office resources

In addition to the documentation website (see [Additional Manuals and User Guides](#) on page 17), there are a range of website that provide information about Avaya products and services including IP Office.

- [Avaya Website](#) (<https://www.avaya.com>)

This is the official Avaya website. The front page also provides access to individual Avaya websites for different regions and countries.

- [Avaya Sales & Partner Portal](#) (<https://sales.avaya.com>)

This is the official website for all Avaya business partners. The site requires registration for a user name and password. Once accessed, the portal can be customized for specific products and information types that you wish to see and be notified about by email.

- [Avaya IP Office Knowledgebase](#) (<https://ipofficekb.avaya.com>)

This site provides access to an online, regularly updated version of IP Office user guides and technical manual.

- [Avaya Support](#) (<https://support.avaya.com>)

This site provide access to Avaya product software, documentation and other services for Avaya product installers and maintainers.

- [Avaya Support Forums](https://support.avaya.com/forums/index.php) (<https://support.avaya.com/forums/index.php>)

This site provides a number of forums for discussing issues.

- [International Avaya User Group](https://www.iuag.org) (<https://www.iuag.org>)

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- [Avaya Learning](https://www.avaya-learning.com/) (<https://www.avaya-learning.com/>)

This site provides access to training courses and accreditation programs for Avaya products.

Related links

[Additional Help and Documentation](#) on page 17

Training

Avaya training and credentials are designed to ensure our Business Partners have the capabilities and skills to successfully sell, implement, and support Avaya solutions and exceed customer expectations. The following credentials are available:

- Avaya Certified Sales Specialist (APSS)
- Avaya Implementation Professional Specialist (AIPS)
- Avaya Certified Support Specialist (ACSS)

Credential maps are available on the [Avaya Learning](#) website.

Related links

[Additional Help and Documentation](#) on page 17

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