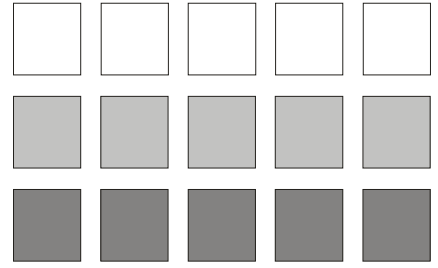


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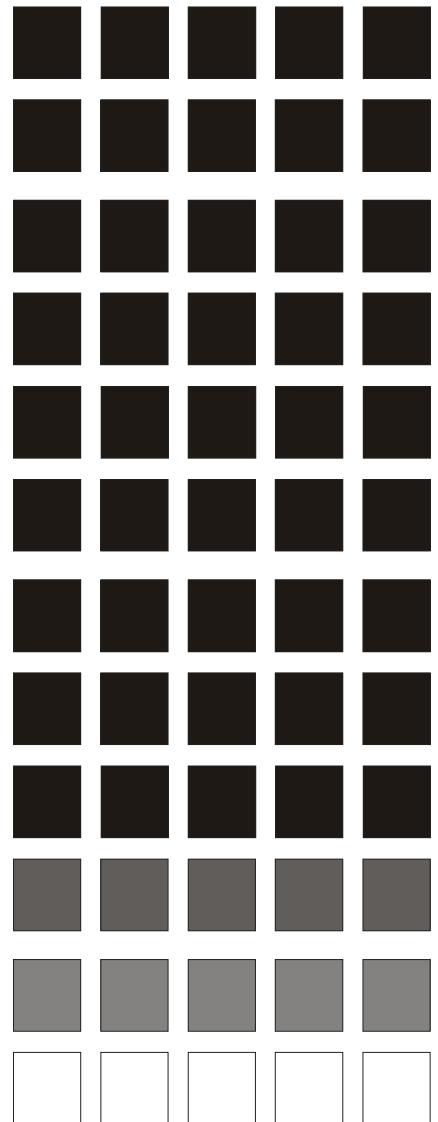
**DBS**  
Digital Business System



Section 570

**TAPI**

Installation  
Guide



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# Introduction

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Most businesses already use computers and telephones extensively in their day-to-day operations. With few exceptions, however, business telephone and computer systems have historically remained independent entities - no interaction or common communication was possible between the two types of systems. Recent advances in technology have made possible the merger of the two systems into a cohesive and more effective communications and operational office tool. The technology which makes this possible is called Computer Telephony Integration (CTI).

The possibilities for CTI are endless. For instance:

- customer information for an incoming customer call could be automatically displayed on a customer representative's computer screen based on the caller's phone number.
- a computer-based phone directory may be used to not only look up a phone number but also initiate the call.
- the vast array of PBX features may be more easily utilized using computer screen icons and prompting instead of complicated telephone feature access codes and procedures.

What are the advantages to CTI?

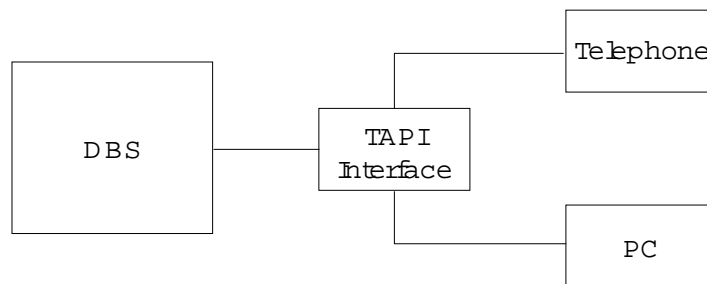
- increased access to information
- more effective communication
- more effective use of the telephone system
- more timely response
- improved customer satisfaction

One of the most significant emerging standards in CTI is **Windows™ Telephony Applications Programming Interface (TAPI)** from Microsoft Corporation. TAPI allows a PC to be connected to a telephone extension and used to control incoming and outgoing calls through that extension. Typical desktop applications that might be used with TAPI include Contact Managers and Personal Organizers.

The Panasonic TAPI product provides the necessary interface between a DBS and a PC-based TAPI application. This product consists of a TAPI Adapter and the Panasonic TAPI Service Provider (SP) software.

The TAPI Adapter provides the physical connection between a PC, a DBS extension, and the DBS itself. Its purpose is to intercept telephone and call control signaling messages from the DBS and telephone extension and then forward a copy of those messages to the Panasonic Service Provider software residing on the PC. The Service Provider interprets those messages and passes them on to the Windows TAPI DLL, also residing on the PC, which routes the messages to the appropriate TAPI application.

The following illustration depicts how TAPI is utilized in a DBS environment.



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## Installation and Configuration

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### Minimum System Requirements

- A 386 IBM-compatible PC or laptop with a 3.5" floppy drive (486 recommended)
- An available serial port with a male DB9 connector
- 8 MB RAM and 1MB free disk space
- Microsoft Windows 3.1 or higher
- Windows-compatible Mouse
- A TAPI application

In addition to the above PC requirements, the DBS must be running CPC-B/AII Version 8.0 or higher.

### Packing List

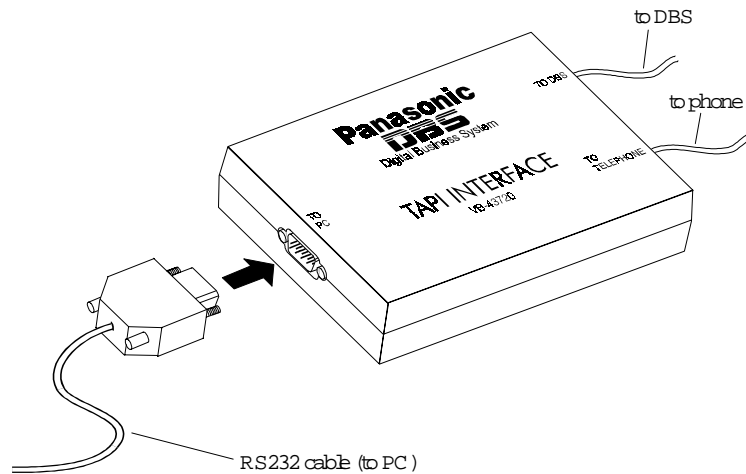
Your TAPI package (VB-43720) should contain the following items:

- TAPI Interface Adapter
- RS232 cable
- Phone cable
- Panasonic TAPI Service Provider software
- Section 570 - TAPI Installation Guide
- Hook & Loop Fastener strip

## Installing the TAPI Adapter

The Panasonic TAPI Adapter connects to the PC via an RS232 cable (included). This cable has a female DB9 connector on each end. A DB9-to-DB25 connector (not supplied) may also be required for connection to the PC.

1. Connect one end of the RS232 cable to an available serial (Com) port on the PC.
2. Connect the other end of the RS232 cable to the TAPI Adapter as shown in the following illustration.



3. Connect the phone line to the Adapter, then the DBS line.

**Note:** Be sure to attach the phone line first before connecting the DBS line. Connecting the DBS line before the phone line may result in operational errors. Also be sure the lines are plugged into the appropriate receptacles.

If desired, you can also use the included hook and loop fastener strip to affix the TAPI Adapter to a convenient surface such as a desktop, PC cabinet, or wall.

## Installing the Service Provider software

You should make a backup copy of the Panasonic Service Provider disk before beginning the installation procedure. You may proceed with the installation once the backup copy has been made.

1. Close out all other Windows applications.
2. Insert the Service Provider disk into floppy drive A or B.
3. For Windows 3.1, select **File**, then **Run** from the Program Manager screen. For Windows 95, select **Start**, then **Run** from the Windows desktop.
4. In the Command Line box, type **a:setup** or **b:setup** (depending on which drive you placed the disk in), then press <ENTER>. The Panasonic Service Provider files will be installed to the same directory containing your Windows system files (usually Windows/System).

**Note:** If using Windows 3.1, a new program group called "DBS" will be added to your Program Manager screen when the installation is complete. You will use the Test Dialer in this group later to test the Service Provider software. For now, however, close out this window.

## Configuring the Telephony driver and dialing options

After the installation is complete, open the Windows Telephony Control Panel and configure the Windows TAPI application for use with the Panasonic Telephony driver.

### *For Windows 3.1*

1. To open the Telephony Control Panel in Windows 3.1, open the **Main** group window. Double click on the **Control Panel** icon, then on the **Telephony** icon.
2. In the Telephony window, click **Location Setup**. The Locations window will open. Click **Add** to open the Add Location window. Enter the extension number of the DBS extension being set up. If you need to dial a digit to access an outside line, enter the digit in the appropriate fields. To indicate a pause, use "W" (wait) following the digit - for example, "9W".

Be sure to also enter your area code and country code in the appropriate fields. If using a calling card, click **Calling Card Setup** and add the appropriate information.



Click **OK** to close the Add Location window, then click **Close** to close the Locations window.

3. With the Telephony window still open, click **Driver Setup**. The Telephony Drivers window will open. Click **Add** to open the Add Driver window. Select **Panasonic DBS Telephony SP** from the list of Telephony Drivers and click **Add**. The Telephony Drivers window will open.
4. With the Panasonic driver selected, click **Setup**. The Configure Provider window will open. Click **Add** and enter the DBS extension number. Click **OK** to open the Configure Line window. Confirm that the information in the Com Port field corresponds to the Com (serial) port on the PC that the TAPI device is actually connected to. If desired, you can also set Flex Key labels to match the FF key programming for the extension.
5. When finished, click **OK** to close the Configure Line window, then click **OK** to close the Configure Provider window. Close out the remaining windows and exit Control Panel.
6. After setting up the Windows Telephony Control information, you will need to configure the specific TAPI application being used. Refer to the documentation accompanying that application for the appropriate information.
7. As a final step, use the provided test dialer to verify that the TAPI adapter and Service Provider software have been installed and configured correctly. Refer to page 8 for the appropriate information.

### ***For Windows 95***

1. To open the Telephony Control Panel using Windows 95, click on the **Start** button. Select **Settings**, then **Control Panel**. Click to open the Control Panel window, then double click on the **Telephony** icon to open the Telephony Properties window.
2. In the **Telephony Driver** section, click on **Add**. The Add Driver window will open. Select **Panasonic DBS Telephony SP** and click **Add**. The Panasonic Service Provider will be added to the list of Telephony Drivers.
3. With the Telephony Driver window still open, select **Panasonic DBS Telephony SP** from the list of Telephony Drivers. Click on **Setup** to open the Configure Provider window.
4. In the Configure Provider window, click **Add**. In the **Add Line** dialog box, enter the extension number of the DBS extension being set up, then click **OK**. The Configure Line window will open. Confirm that the information in the Com Port field corresponds to the Com (serial ) port on the PC that

the TAPI device is actually connected to. If desired, you can also set Flex Key labels to match the FF key programming for the extension.

5. When finished, click **OK** to close the Configure Line window, then click **OK** again to close the Configure Provider window.
6. In the **Dialing Preferences** section of the Telephony Properties window, click on **Dialing Properties** and set up the appropriate parameters for your dialing location. If you need to dial a digit to access an outside line, enter the digit in the appropriate fields. To indicate a pause, use "W" (wait) following the digit - for example, "9W".
7. Click **OK** twice to close the Dialing Properties and Telephony Properties windows and exit Control Panel.
8. After setting up the Windows Telephony Control information, you will need to configure the specific TAPI application being used. Refer to the documentation accompanying that application for the appropriate information.
9. As a final step, use the provided test dialer to verify that the TAPI adapter and Service Provider software have been installed and configured correctly.

## Testing the Panasonic TAPI product

The Panasonic Service Provider software comes with a test dialer for testing the installation and configuration of the TAPI adapter and Service Provider.

1. For Windows 3.1, open the **DBS** group window and double-click on the **Dialer** icon.

For Windows 95, click on the **Start** button. Select **Programs**, then **DBS**, then click on **Dialer**.

2. From the **Options** menu, select **Dialing** and verify that your extension is selected under **Preferred Line**. Click **OK** to confirm the selection.
3. Enter a phone number in the "Number to Dial" field, then click **Dial**. A window will open, showing the number actually being dialed.
  - If the **Dialing Properties** section of the **Windows Telephony Control Panel** indicates that certain digits must be dialed to access an outside line, these digits will be reflected in the number actually being dialed. For example, if your **Telephony Control Panel** specifies that you must dial a "9w" to access an outside line, and you enter the number 555-1212 in the "Number to Dial" field of the test dialer, the actual number dialed will be "9w-555-1212".

***If the test dialer works...***

If the test call works properly, then the TAPI adapter and Panasonic Service Provider software are installed correctly and your Windows Telephony settings are configured correctly.

- If you are experiencing difficulties with your TAPI application, but the test dialer works okay, you may need to modify configuration parameters in the TAPI application. Refer to the documentation accompanying the application for the appropriate information.

***If the test dialer does not work...***

If the test call does not dial and connect properly, check the following settings in your Windows Telephony Control Panel:

- the Panasonic Command Set Telephony SP is selected as the Telephony Driver.
- your extension is specified as the Line and the correct Com port is selected.
- the Location (Windows 3.1) or Dialing Properties (Windows 95) parameters are correct.

If necessary, refer to page 6, “Configuring the Telephony driver and dialing options”, for the appropriate information.

# Panasonic Supported Services

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## Basic Call Related Services

Service	Supported
Answer	Yes
Dial	Yes
Drop	Yes
Generate Digits	Yes
Hold	Yes
Media Control	No
Monitor Digits	No
Monitor Media	No
Monitor Tones	No
Swap Hold	No
Retrieve (Unhold)	Yes

## Supported Supplementary Services

- Transfer - Consultation
- Conference - Establish
- Conference - Add party
- Park - Non-directed
- Park - Pickup
- Forward - Unconditional
- Pickup - Group
- Pickup - Directed
- Completion - Camp On
- Completion - Barge-in
- Completion - Message
- Completion - Callback

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