

GENBAND M6: TAPI Client for Personal Information Managers

INTRODUCTION

This White Paper describes the installation, configuration and use of the Telephony Application Programming Interface (TAPI) client which allows Personal Information Managers (PIMs) such as Microsoft Outlook to integrate with GENBAND M6-enabled Hosted IP Telephony Services.

TAPI OVERVIEW

TAPI is a Microsoft Windows API that enables developers to write PC applications and Microsoft Windows users to take advantage of services provided by telephony vendors. TAPI can enable an application to dial a telephone number, store commonly dialed numbers, etc. GENBAND utilizes a TAPI client application within Web Portal that can be used to dial contacts from Microsoft Outlook or other personal information managers. GENBAND has certified dialing through Microsoft Outlook 2003. Other personal information managers can be evaluated for provisional certification as needed.

Using the M6 Web Portal, an end-user can download and install the TAPI client and configure it to make outbound calls via Outlook Contacts and other provisionally certified TAPI applications.

ENABLING TAPI

The user installs the TAPI client from the PC Integration tab of the M6 Web Portal. This tab is only available if the customer partition has been provisioned for TAPI. To provision TAPI for all users pertaining to a customer partition, enable the TAPI checkbox on the Options tab of the Administration Customer Wizard. See Figure 1.

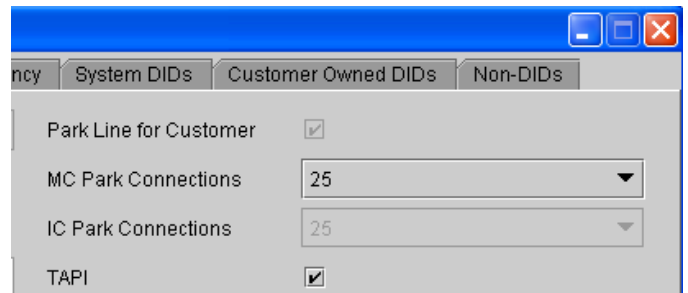


Figure 1 – Enabling TAPI by Customer Wizard

If TAPI should be enabled on a per-user basis, as opposed to the entire partition, then it can be enabled via Components / User / Information Tab as in Figure 2.

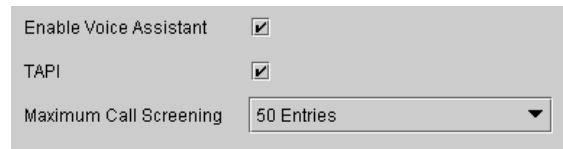


Figure 2 – Enabling TAPI by User

INSTALLING THE TAPI CLIENT

When a user is enabled for TAPI, the PC Integration tab is available in the end-user's Web Portal. See Figure 3.

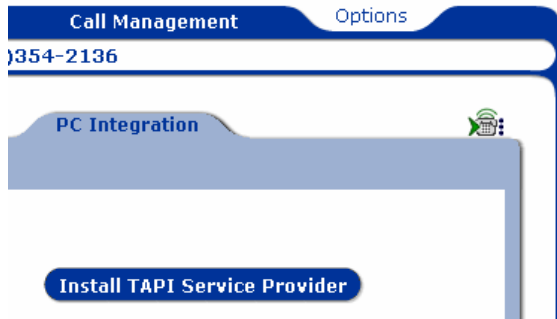


Figure 3 – Installing the TAPI Client from the PC Integration Tab of the Web Portal

To install the TAPI client from the Web Portal, the following steps are required:

1. Log into the Web Portal.
2. Click on the *Options* tab.
3. Click on the *PC Integration* tab.
4. Click on the *Install TAPI Service Provider*, as shown in Figure 3.
5. In the File Download window, click the *Run* button to run the application or click *Save* to save the installation program to the hard disk for installation at a later time.

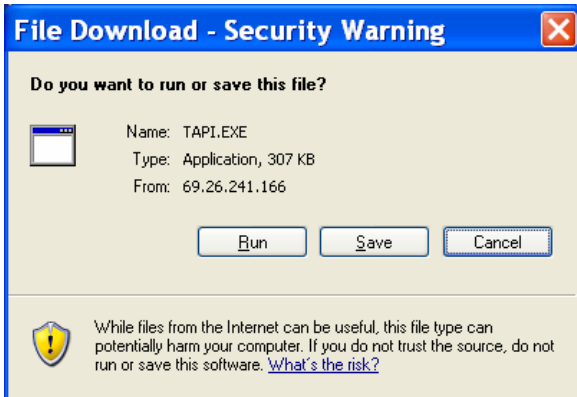


Figure 4 – File Download Window

6. Depending upon the user's operating system and their security settings, the user may receive a Security Warning window similar to that shown in Figure 5. If so, click *Run* to allow the TAPI installation to proceed.

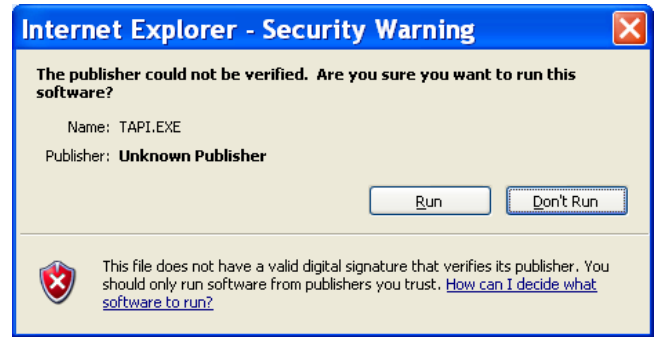


Figure 5 – Security Warning Window

7. The Welcome screen of the installation program warns to close all Windows programs to proceed. Save any open documents and close any running programs before proceeding. Click *Next*.

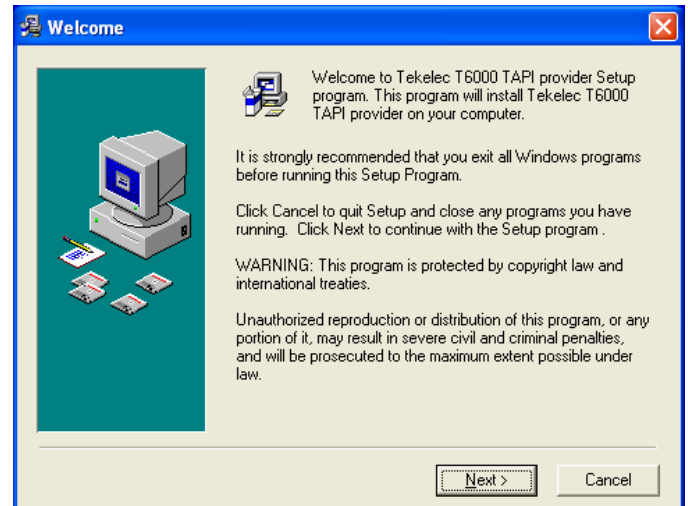


Figure 6 – Welcome Screen

8. Click *Next* on the Start Installation Window to start the installation process.

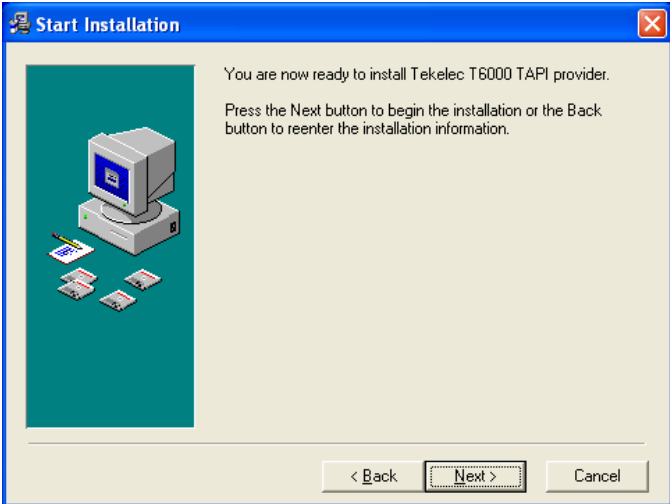


Figure 7 – Start Installation Window

9. During the installation the following window will popup in the foreground for configuration.



Figure 8 – GENBAND M6 Configuration

10. Enter the Virtual External IP address of the Session Border Controller pair to be used by this subscriber into the *Telephony Server IP Address 1* field.
11. Enter the Virtual External IP address of the Session Border Controller pair to be used as backup by this subscriber into the *Telephony Server IP Address 2* field. *Note:* that this can be configured the as *Telephony Server IP Address 1* if no backup SBC pair is available. This field must, however, be completed in

order to successfully configure the TAPI client. If more than one Session Border Controller pair is available in the network, both pair should be used to ensure the highest availability of service.

12. In the *Available Lines* table click the *Add* button.

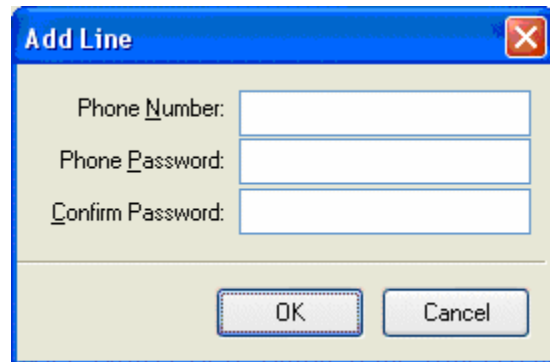


Figure 9 – Add Line

13. Enter the subscriber's telephone number, including the area code, in the *Phone Number* field.
14. Enter the subscriber's Phone password (same as the Web Portal password) in the *Phone Password* field.
15. Enter the subscriber's Phone password again as confirmation in the *Confirm Password* field.
16. Click OK.

17. Click *Finish* on the Installation Complete Window to complete the installation of the TAPI client and close the installer.

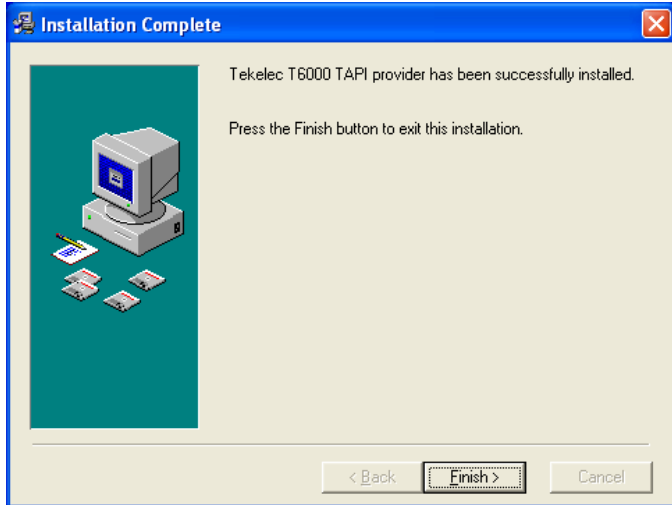


Figure 10 – Installation Complete Window

18. When the installer closes, the user may be prompted to restart the computer. Click OK to restart the computer.

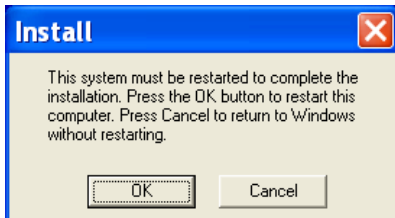


Figure 11 – System Restart

CONFIGURING THE TAPI CLIENT

Once the TAPI client is installed, it may need to be re-configured if the user's service account information changes (i.e., telephone number, password and GENBAND M6 server addresses) or if they would like to add an additional line or softphone.

To configure or re-configure the TAPI client:

19. Click on Start ⇒ Control Panel ⇒ Phone and Modem Options to open the Phone and Modem Options Control Panel. See Figure 9.

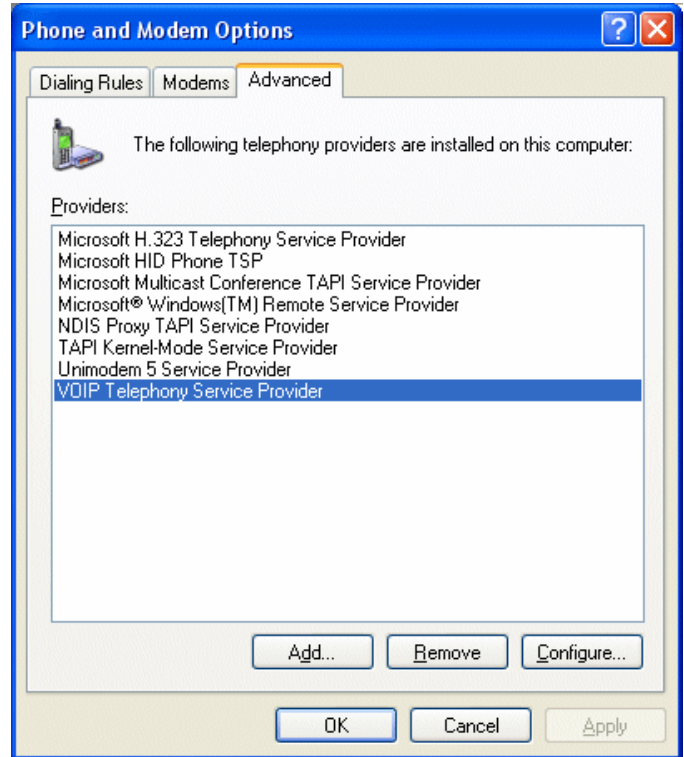


Figure 12 – Advanced Phone and Modem Options

20. Click the *Advanced* tab of the Phone and Modem Options Window.

21. Notice that the *VoIP Telephony Service Provider* appears. If this does not appear, the TAPI client installation process was not successful and it must be repeated.

22. Select *VoIP Telephony Service Provider* and click *Configure* to open the GENBAND M6 configuration window shown in Figure 13.

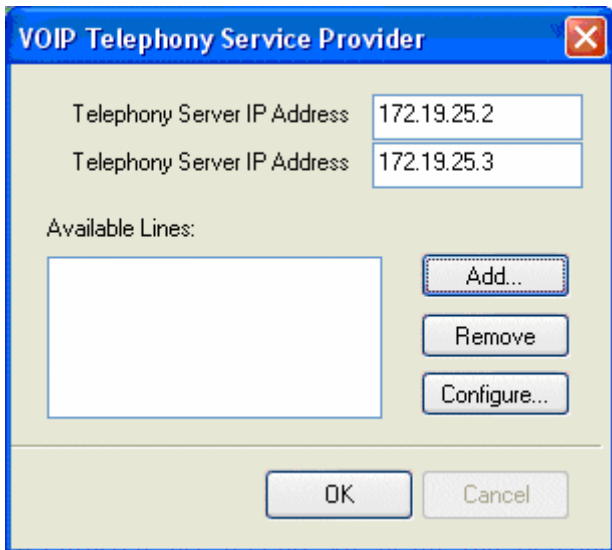


Figure 13 –GENBAND M6 Configuration Window

23. Enter the Virtual External IP address of the Session Border Controller pair to be used by this subscriber into the *Telephony Server IP Address 1* field.
24. Enter the Virtual External IP address of the Session Border Controller pair to be used as backup by this subscriber into the *Telephony Server IP Address 2* field. Note that this can be configured the as Telephony Server IP Address 1 if no backup SBC pair is available. This field must, however, be completed in order to successfully configure the TAPI client. If more than one Session Border Controller pair is available in the network, both pair should be used to ensure the highest availability of service.
25. In the *Available Lines* table click the *Add* button.

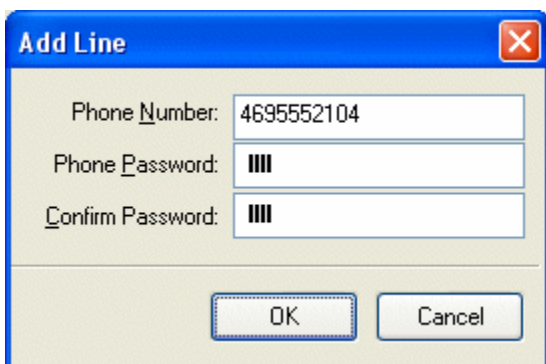


Figure 14 – Add Lines Window

26. Enter the subscriber’s telephone number, including the area code, in the *Phone Number* field.
27. Enter the subscriber’s Phone password (same as the Web Portal password) in the *Phone Password* field.
28. Enter the subscriber’s Phone password again as confirmation in the *Confirm Password* field.
29. Click OK.

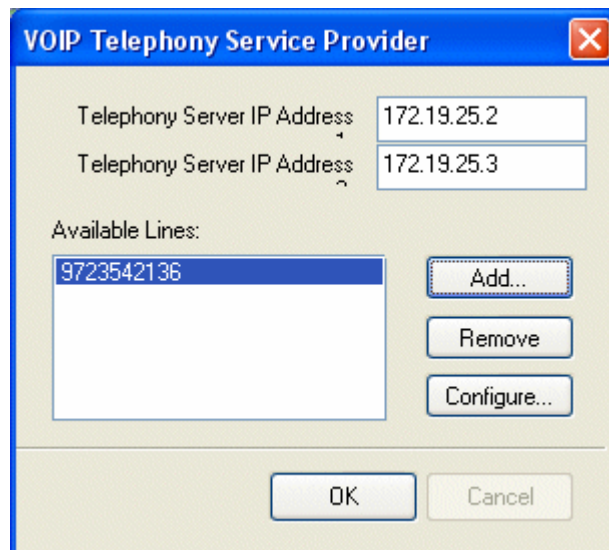


Figure 15 – A Fully Configured GENBAND M6 Configuration Window

30. The *Available Lines* and IP Addresses should appear in the window. Lines can be configured as the user’s phone password is modified. Lines can be removed when they are no longer needed.
31. Click *OK* to save the changes made.
32. *Close* the Phone and Modem Options window.

CONFIGURING MICROSOFT OUTLOOK

Using the TAPI client with Microsoft Outlook, users can click-to-dial any of the contacts listed in their Microsoft Outlook Contacts folder.

The first time they use this feature, the user will need to configure Microsoft Outlook.

To use the click-to-dial feature within Microsoft Outlook:

1. Launch Microsoft Outlook
2. Click on the appropriate Contacts folder.

3. Select a contact that has at least one telephone number listed and right-click on the contact.
4. In the pop-up menu, select *Call Contact...*, as shown in Figure 16, to open the New Call dialog.

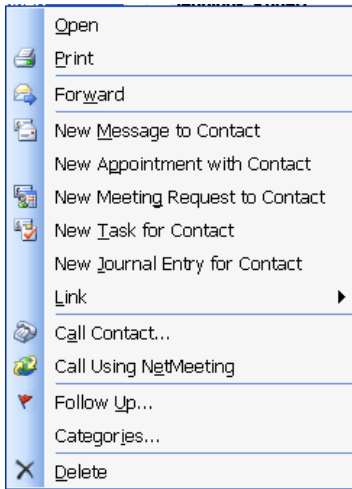


Figure 16 – Microsoft Outlook Contacts Context-sensitive Pop-up Menu

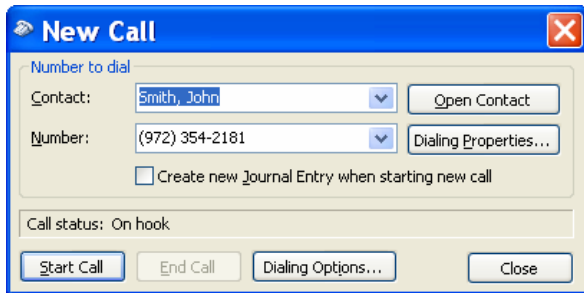


Figure 17 – New Call Dialog

5. The first time the click-to-dial feature is used within Microsoft Outlook, the Dialing Options must be configured. Click the *Dialing Options* button.

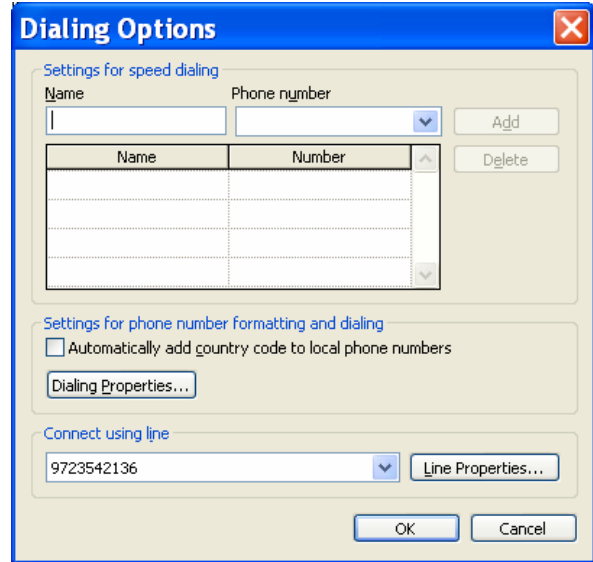


Figure 18 – Dialing Options Dialog

6. Using the *Connect using line* drop-down menu, select the subscriber's telephone number that was previously configured in the Phone and Modem Options.
7. Click *OK* to return to the New Call dialog.
8. Click *Dialing Properties...* to open the Dialing Rules portion of the Phone and Modem Options, as shown in Figure 19.

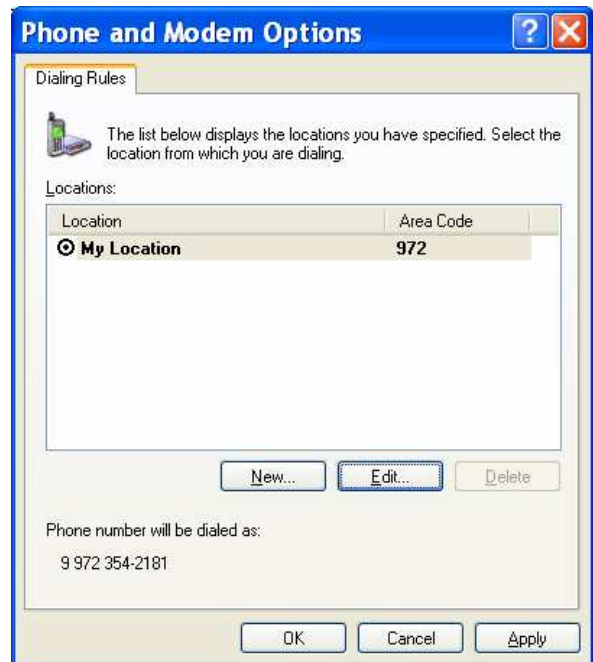


Figure 19 – Dialing Rules

9. If not already selected, select the subscriber's current location. In many cases, the only location available will be labeled My Location. Ensure the phone number listed in the bottom of the screen uses the proper dialing pattern. If not, you will need to edit your location.
10. Click *Edit* to edit this location.

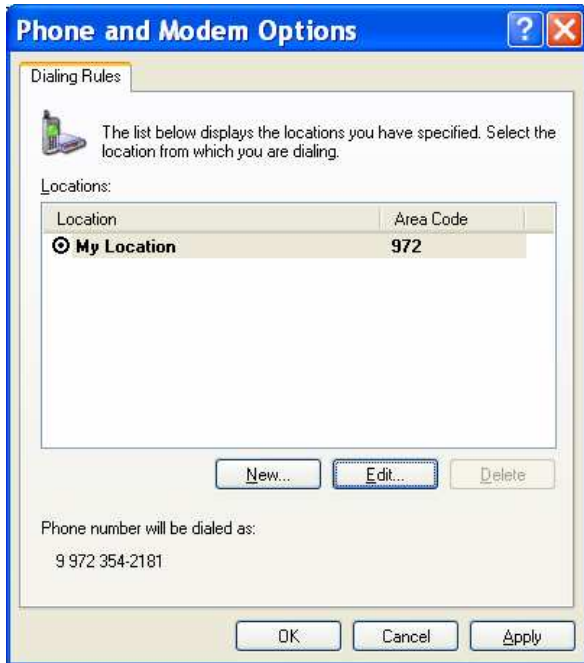


Figure 20 – General Tab of the Edit Location Dialog

11. If not already selected, select the General tab.
12. Verify that the Area Code indicated matches the area code for the subscriber's telephone number.
13. For business users, enter the appropriate Outside Access Digit (usually "9") into the two fields: "To access an outside line for local calls, dial:" and "To access an outside line for long-distance calls, dial:". Residential subscribers should leave these fields empty.
14. Select the *Area Code Rules* tab.

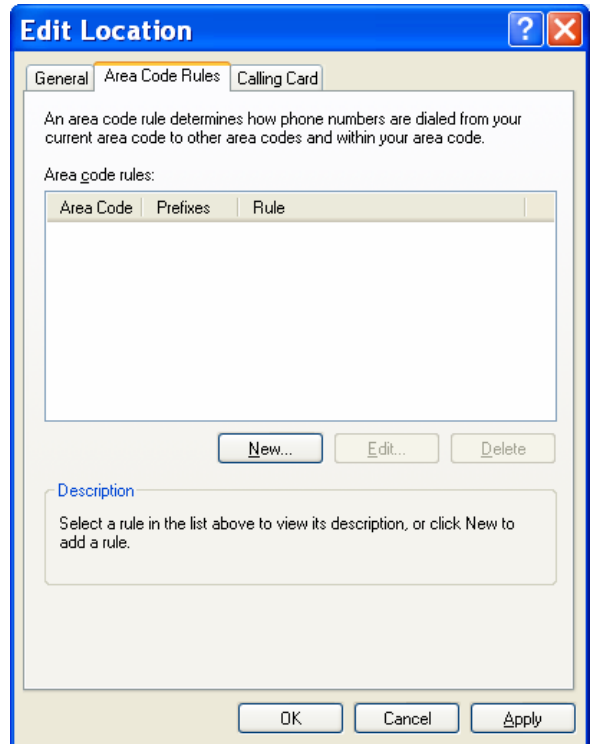


Figure 21 – Area Code Rules Tab of the Edit Location Dialog

15. If the subscriber is located in an overlay service area where more than one area code is used to dial local numbers, click the *New...* button to add an area code rule.

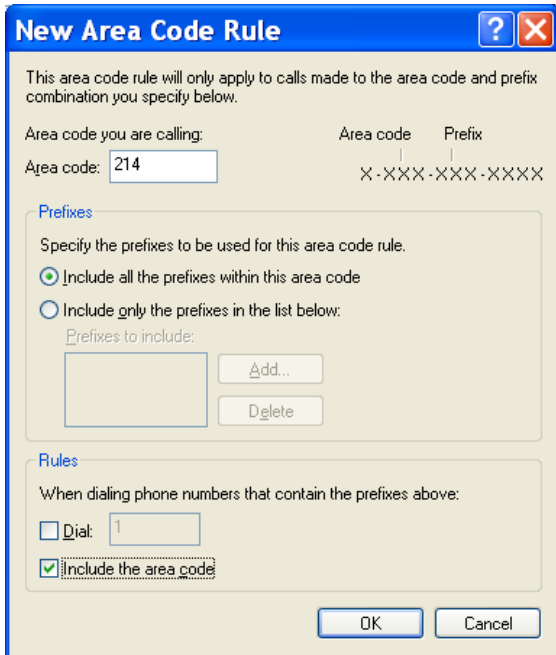


Figure 22 – New Area Code Rule Dialog

16. Enter the *Area Code* that will be used for local calls in addition to the assigned area code.
17. In the *Prefixes* area select the radio button that best fits the subscribers dialing area. If "Include Only" is used, enter all the prefixes that are treated as local calls by clicking Add and entering all the prefixes (separated by either commas or spaces) in the field provided. If the "Include All" button is selected, all numbers within the area code specified are treated as local calls from the subscriber's telephone.
18. In the *Rules* section check the box that best fits the subscriber's dialing requirements. If the subscriber must dial a "1" (or any other digits) when calling this area code, enable the *Dial* checkbox and enter the appropriate digits. If the subscriber must enter the full number without a long distance dial code then check the *Include the area code* box. Click *OK* when completed.

19. After repeating this process for all the area codes in the local overlay service area, click *OK* to return to the *Dialing Rules* dialog.
20. Click *OK* to close the *Dialing Rules* dialog and return to the *New Call* dialog.
21. Click *Start Call* to dial the selected contact.

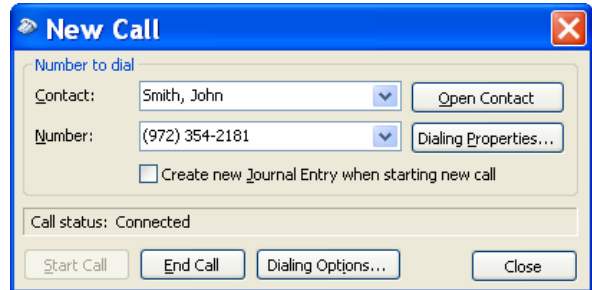


Figure 23 – New Call Dialog with an Active Call

22. When the other party answers, the *Call Status* will change to *Connected*, as shown in Figure 23.
23. Click *End Call* to disconnect the call. The *Call Status* will return to *On Hook*.

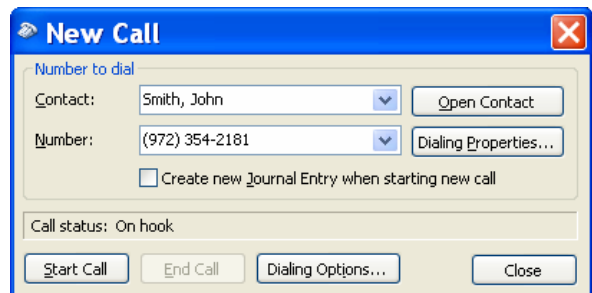


Figure 24 – New Call Dialog after Disconnecting the Call

24. Close the window.
- After the initial configuration, the click-to-dial process is simple:
1. Right-click a *Contact*.
 2. Click *Call Contact*.

If a contact is configured with multiple telephone numbers (e.g., Home, Business, Mobile etc.), the subscriber can select the appropriate number from the *Number* drop-down menu before clicking *Start Call*.

COMPATIBILITY MATRIX

The following software configurations were tested as part of the GENBAND M6 test groups.

Operating System	Outlook 2003	Outlook 2003 SP1	Outlook 2003 SP2
Windows XP SP1	FAIL*	FAIL*	FAIL*
Windows XP SP2	FAIL*	PASS	PASS
Windows 2000 SP4	PASS	PASS	PASS

* Load the appropriate Service Pack to ensure compatibility.

TROUBLESHOOTING TIPS

The following are common configuration problems and their resolution.

Symptom	Resolution
Received "unable to detect dial tone" message via Windows.	Edit the Dialing Options and ensure the <i>Connect Using Line</i> is the subscriber's telephone number.
Received "unable to connect" message via Windows.	Go to <i>Start</i> ⇒ <i>Control Panel</i> ⇒ <i>Phone and Modem Options</i> ⇒ <i>Advanced</i> tab. Select the <i>VocalData VOISS Telephony Service Provider</i> and click <i>Remove</i> . Close all open Windows and restart the computer. Access <i>Web Portal Options</i> ⇒ <i>PC Integration</i> tab and download the application again. Install and configure based upon this document.
Received "another program is using the selected telephony device" message via Windows.	Upgrade to the latest Service Pack (see compatibility matrix in this document). Uninstall the <i>VocalData VOISS Telephony Service Provider</i> . Reboot PC. Download the <i>TAPI Integration</i> from <i>Web Portal</i> . Install and configure based upon this document.

For more information, please contact your GENBAND Sales Engineer.

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