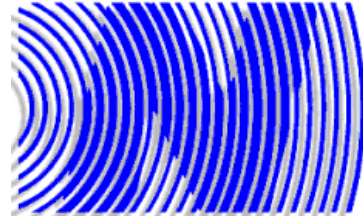


DigiLAN 1.1.0

User Manual





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Introduction to DigiLAN

Phone line based remote loading

Traditional remote loading audio messaging systems utilize a standard phone line through which to transfer music and/or audio advertisements. The typical setup is to connect a dedicated or shared line to the audio messaging device, dial into it from a computer, and either transfer a file to the unit or stream the audio across the connection for the unit to record. While this system generally works well, it does have a few shortcomings.

Speed is a huge factor when dealing with phone connections. If you have a large production to transfer, streaming the audio in real-time can be immensely time consuming. Audio quality can be greatly affected by the quality of the lines during this period; audio recorded via phone played over the phone can sound fairly distorted. Using a system that transfers the audio as a wave or mp3 can alleviate the audio quality, but the higher the recording quality, the larger the file is that needs to be transferred. This can lead to transfer times as long as real-time recording, and sometimes even longer.

Phone line quality can make remote loading difficult. Many buildings have old lines that have degraded over time, but it is not evident when using them for analog phone service. This can make the connection between the messaging device and the server unreliable. Nobody wants to re-load a thirty minute audio production due to connection loss halfway through loading.

Cost is often another aggravation. If you want to load more than one message system at a time, you'll need an extra phone line for every unit beyond the first. Couple the price of multiple lines with the possibility of paying long distance phone charges and you may come up with a fairly large monthly bill. Then you have the rest of your business to run on top of that.

The Internet Solution

If you're pulling your hair out at this point, then the TELink i series just may be your Holy Grail. The TELink i series can be used for a variety of applications, be it message-on-hold, in-store broadcasting, or even simply background music. The solid state flash memory used for storage ensures that there are no moving parts, no tapes or CD's to load, and the best part is that you can remotely load them from anywhere with a high-speed Internet connection.

Setup is very similar to a phone line based system. You have the TELinks in the field that connect-back to a server, or the server connects to the TELinks and then loads your audio. The only major difference is the method of transfer: a high speed, broadband Internet connection as opposed to a slow, often unreliable phone line connection.

The speed advantage can become very obvious. For example, the same 30 minute audio production that would take the full 30 minutes to send in real-time, if recorded at 32kbps

(which is pretty much phone quality) would take over 40 minutes if loaded via data transfer over phone lines, yet would transfer in as little as 5.5 minutes via the Internet. That's almost eight times faster!

With all this extra speed, you can increase the quality of the audio you are loading to the message system. Even if you load CD quality audio, it will still transfer relatively close to real-time. This will allow your audio to sound better if it is used for on-hold messaging, especially with the increasing amount of users switching to digital phone services, such as Voice-over-IP.

Since broadband has really only been common in the past few years, there's generally much less concern about line quality. This saves on site technician calls. The TELink i series also has the ability to reconnect automatically if the connection is lost, and pick up where it left off during the transfer. This means you don't have to worry about coming to work the next day and wonder why a production wasn't successfully loaded the night before.

Internet Remote Load Considerations

Internet based remote loading is not for everyone, but it offers some very compelling reasons to upgrade. That said, there are some basic considerations to take in account when pursuing the TELink i series for audio messaging.

First and foremost, you and your customer both need a broadband Internet connection. Dial-up could possibly work, but forget about that right now. It would completely defeat the purpose of the speed and reliability of the connection. If the customer site has either DSL or Cable access, then they will need some sort of router if the modem does not have one built in. With a T1 or better service, there will most likely already be a high quality router or router with switch that has been professionally installed.

An at least rudimentary knowledge of networking and the Internet is highly recommended. There are some instances where the router/firewall will have to be configured to properly allow the TELink to reach/be reached by your server. Picture yourself knowing absolutely nothing about cars and having to explain to someone how to disassemble an engine and you'll begin to understand.

There are some additional recommendations in Appendix A: Hardware Configuration that you might wish to peruse when you are ready to set up your/your customer's network for usage with the DigiLAN software and TELink i series. It would also be wise to NOT skip over the Hardware Requirements in ***Chapter 1: Installation***.

So what is DigiLAN?

DigiLAN is the software utilized to connect to these TELinks and load them with MP3 audio files. There are two main components that make up the DigiLAN software: Management and Distribution. Management allows you to manually connect to a TELink and make setting changes or load messages. It is also where you can schedule future changes and message loads, as well as “manage” customer information. Distribution is the server side of DigiLAN; it handles all of the scheduled changes by either connecting to the TELinks or accepting an incoming connection from them.

Other components include DigiLAN DBMaintenance and DigiLAN Configuration; the two setup utilities for configuring and maintaining the DigiLAN settings and database. For the TELink setup and configuration, TELink CB Configurator and TELink IP Configurator are available. The CB and IP Configurators are also included with each TELink i series as the Installer Utilities CD. More information on these components is contained in ***Chapter 4: DigiLAN Tools***.

This manual will take you through each component and its individual features to maximize your understanding of how to use the software to best fit your business. Additional recommendations and technical information will be found in the accompanying appendices.

CHAPTER 1

Installation



1.1 DigiLAN System Requirements

Client Requirements

Minimum:

COMPUTER: IBM PC or 100% compatible
OPERATING SYSTEM: Windows XP Professional
CPU: Intel Pentium III 1GHz (or AMD equivalent)
MEMORY: 256 MB system memory
GRAPHICS: 32 MB video memory
SOUND CARD: 16-bit sound card (On-board or plug-in)
HARD DRIVE: 500MB plus storage for audio files
CD-ROM: Quad-speed CD drive or DVD drive
INPUT DEVICES: Keyboard and mouse
NETWORK CARD: 10 base-T standard network card

Recommended:

CPU: Intel Pentium 4 2GHz (or AMD XP equivalent)
MEMORY: 512 MB system memory
HARD DRIVE: 2nd hard drive/server for audio storage
NETWORK CARD: 100mbps Ethernet connection
Weekly or Daily backup scheme

Server Requirements

Minimum:

COMPUTER: IBM PC or 100% compatible
OPERATING SYSTEM: Windows XP Professional
CPU: Intel Pentium 4 2GHz (or AMD equivalent)
MEMORY: 512 MB system memory
GRAPHICS: 32 MB video memory
SOUND CARD: 16-bit sound card (On-board or plug-in)
HARD DRIVE: 500MB plus storage for audio files
CD-ROM: Quad-speed CD drive or DVD drive
INPUT DEVICES: Keyboard and mouse
NETWORK CARD: 10 base-T standard network card

Recommended:

CPU: Intel Pentium 4 2.4GHz or higher, preferably with HyperThreading
MEMORY: 1GB system memory
HARD DRIVE: 2nd hard drive/server for audio storage
NETWORK CARD: 100mbps Ethernet connection
Weekly or Daily backup scheme

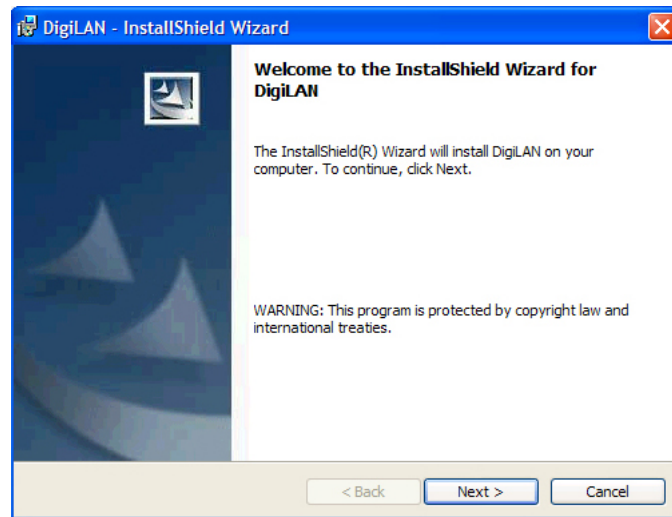
Notes regarding the system requirements

- The server requirements are higher due to the expected presence of multiple connections to the database.
- If you install the software on a single, standalone machine, please follow the Server Requirements.
- While not a requirement, it is highly recommended that some sort of backup scheme be in place for the database on the server.
- If you are going to have a large database of customers with multiple TELinks per customer, it is highly advised to consider having a system capable of handling multiple threaded applications (Pentium 4 w with HyperThreading, or a multiprocessor system). This can greatly increase the performance and reliability of the system when handling large databases with multiple incoming/outgoing connections.

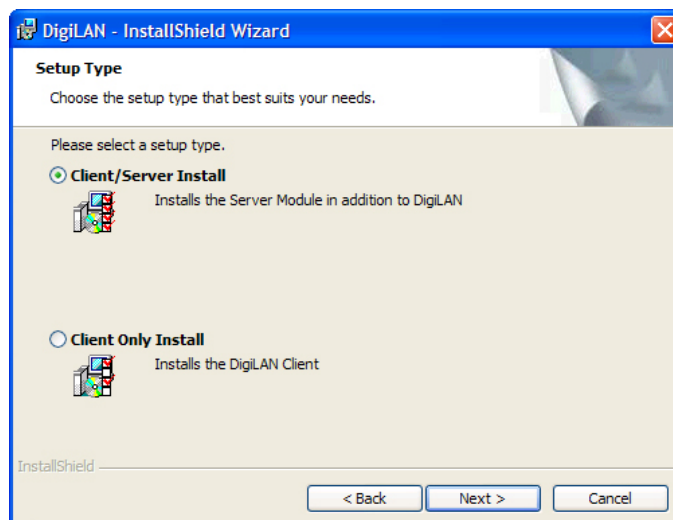
1.2 Installing the DigiLAN Software

CD-ROM Installation: Insert the DigiLAN v1.1.0 installation CD into the CD-ROM drive. When the Installation menu appears, click Install. If the menu does not appear, open My Computer, double-click the CD-ROM drive, then double-click Setup.exe.

Downloaded Installation: Unzip the archive into a temporary directory. Navigate to that directory and double-click Setup.exe.



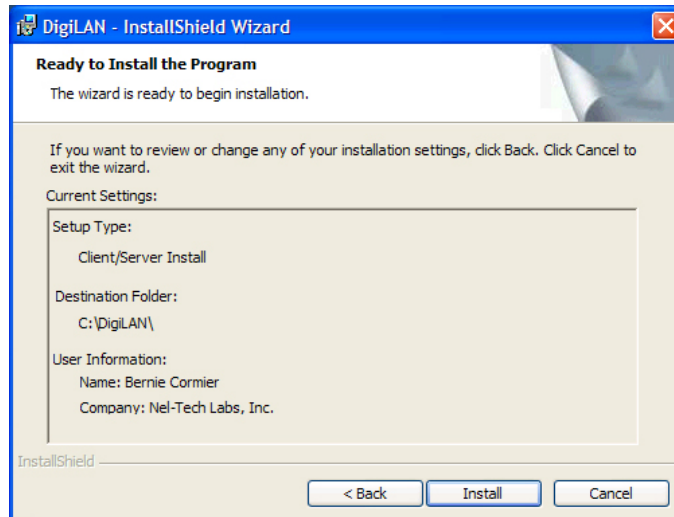
When the Installshield Wizard appears, click next. Select the type of install you want to perform:



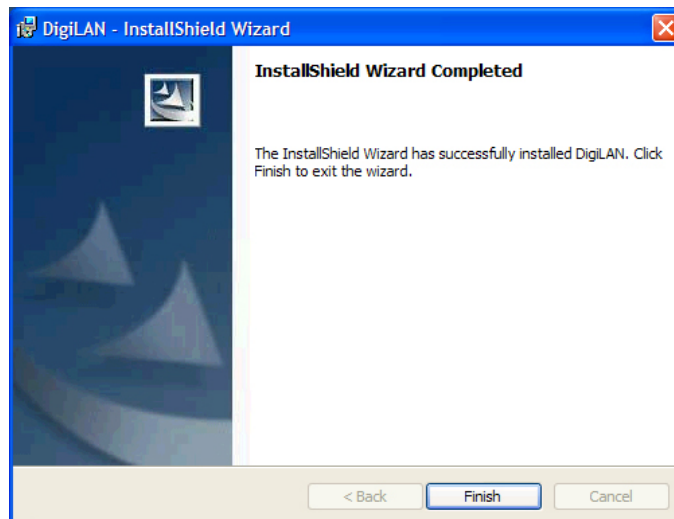
Client/Server: Select this option if you are setting up a server for other machines to connect to or installing the software on a standalone machine.

Client: Select this option if you are installing the software on a machine that will access the database from a server that has had the Client/Server option installed.

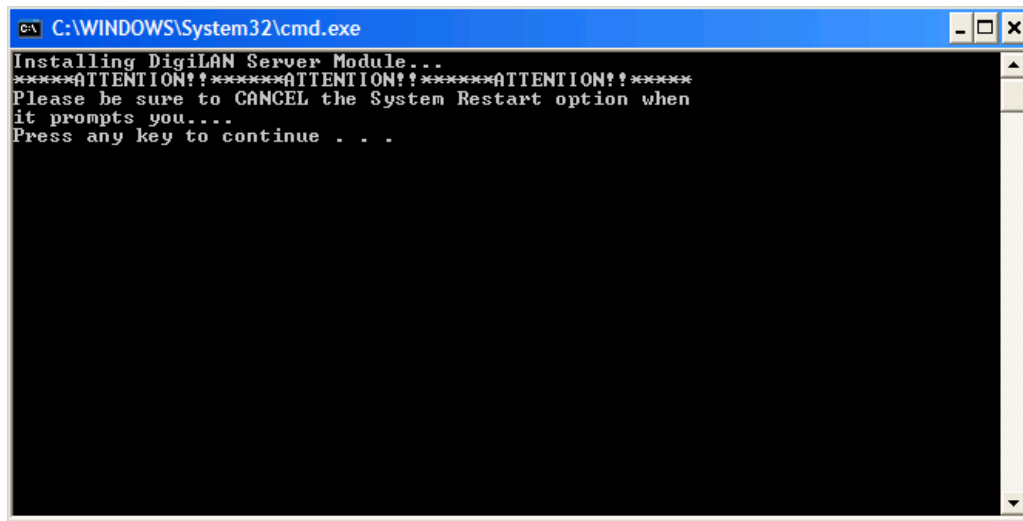
Now click Next.



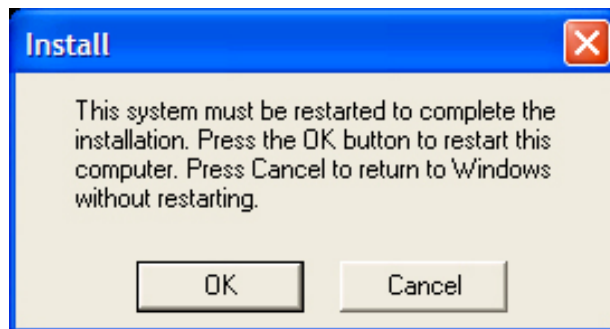
When you are ready, click Install to initiate the installation.



Once the files are done copying, click finish. For Client/Server installs, a command prompt will appear, indicating instructions to complete the installation:



Press a key to continue. A dialog box will prompt you to restart the system:



Click Cancel. The command prompt will complete some additional actions and finish. Installation is now complete.

CHAPTER 2

Management

Management is the core of the DigiLAN software. Most of your time spent with DigiLAN will be using Management. It is used to connect to new and existing TELinks, to manually load audio, to change the available settings, manage customer information and to schedule automated message loads. Understanding how all of its features interoperate will be key in maximizing DigiLAN's potential for your business.



2.1 Direct Connect

Generally the first step after installing DigiLAN is to connect to a TELink i series in order to configure and load messages to it. To perform a direct connection to the TELink, launch **DigiLAN Management**, click **Manage**, and then **Connect**. Type in the IP address of the TELink you wish to connect to in the **Remote Unit's IP Address** fields, then input the password for that unit in the **Remote Unit's Password** field, and then click **Connect**.

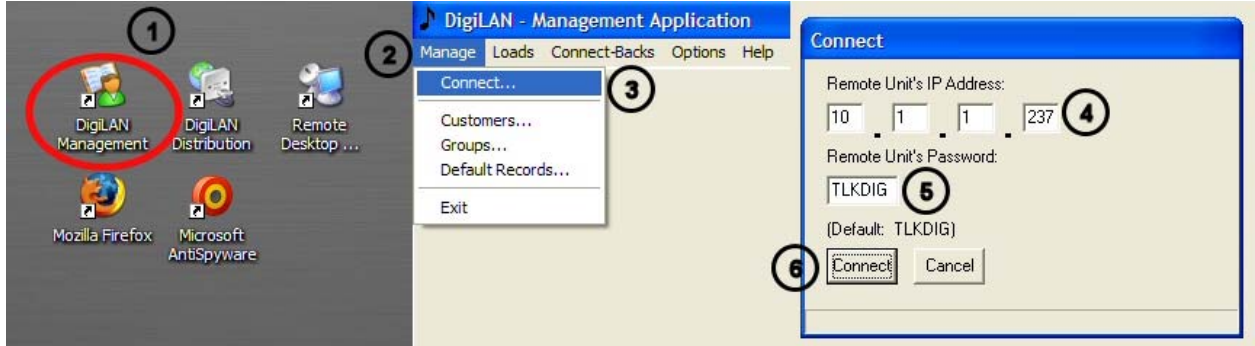


Figure 2.1: Steps to directly connect to a TELink i series

Once you've successfully logged on, you will be presented with a new window showing the TELink being scanned and that unit's formation will be displayed. When the status bar at the bottom reads "idle," you will be able to change the information and navigate between the different sections in the direct connection window.

****Note:** If you have a TELink i series on your local network, refer to **Chapter 4: DigiLAN Utilities** for instructions on how to find the IP address of the unit with the IP Configurator.*

2.2 Direct Connect – Customer View.

***Note:** When working within the DigiLAN Management application, there will be color-coded fields that will indicate the following:

Black: These are fields where data can be entered or options can be modified.

Green: These are fields that are informational only and cannot be changed.

Highlighted Yellow: These are fields/options that have pending changes.

Red: These are options that have pending changes (radials, checkboxes, etc.).

Grayed out: These are fields/options that are not available to change.

The first screen you will be presented with when you connect to a TELink i series is the Customer Info view.

Direct Connect - Store 536

Disconnect Send Changes Cancel Changes Scan Unit

Customer Info Unit Info Messages

Customer Information Unit Attributes

Contact: Danny Ridgefield IP Address: 10.1.1.237

Phone: 603-622-0804 Ext.: 2200 Group: Eastern Time Zone

Acct. ID: 12345678

Customer: Store 536

Address: 1500 South Willow St.

City/State/Zip: Manchester NH 03104

Country: USA

Email: d.ridgefield@email.com

Notes: Eastern Time Zone Group Updates Every Friday

Unit AutoConfirm Email Message:


Your on-hold messages have been successfully updated! A copy of the production has been attached.

☒ Auto Confirm Email ☒ Attachment

C:\AudioAds\audioads.zip

Idle...

Figure 2.2: Direct Connect Customer Info view

1. **Disconnect:** Allows you to disconnect from the TELink.
2. **Send Changes:** Sends any pending changes to the TELink.
3. **Cancel Changes:** Clears any pending changes and re-scans the TELink.
4. **Scan Unit:** Re-scans the TELink (this will clear pending changes automatically).
5. **View Tabs:** Allows you to change between the different views.
6. **Contact:** The name of a contact from the customer; often an IT person responsible for the management of the network.
7. **Phone, Ext:** The phone number and extension of the contact.
8. **Account ID:** An 8-digit ID to represent the customer
9. **Customer:** The customer name. **Note:** The **Customer** field MUST be unique, as this is how the unit is recognized in the software's database. If you have a customer with multiple locations, then it is recommended that you add a number, or the actual location to the Customer field (i.e. "Store - 123", or "Store - Manhattan").
10. **Address/City/State/Zip:** The address information for that customer (or that individual TELink).
11. **Country:** The country location of the customer (or that individual TELink).
12. **Email:** The email address for the customer. **Note:** When utilizing the AutoConfirm email feature, this is the address that will be sent an email when that TELink is successfully loaded on schedule. If you would prefer to receive those confirmations instead, it is recommended that you put your own email address in this field.
13. **Notes:** Allows you to make any miscellaneous notes regarding the customer or that particular TELink.
14. **Status Bar:** Provides information regarding the current status of the Direct Connect session; i.e. if it is loading, scanning the unit, or is idle.
15. **IP Address:** The current IP address of the TELink that you are connected to. **Note:** This is only available from a TELink that you can directly connect to. If the unit is configured strictly for a pull scenario (it connects back to the server looking for new changes) then you will not be able to see its current IP address.
16. **Group:** This allows you to assign a TELink to a group of similar units. If you have multiple locations that need to receive the same messages/settings, this will enable you create a single Load or Connect-Back for the whole group.
17. **Auto Confirm Email:** This section is for setting up an automated email system that will send a confirmation when a TELink has been successfully loaded from a scheduled connection. You can type a short message and there is also the option to attach a file by checking the **Attachment** box and either clicking on the  button to browse for a file or by typing the path in the field below.

2.3 Direct Connect – Unit Info View

The Unit info view displays information about the TELink and contains all of the settings that you can change.

The screenshot shows the 'Direct Connect - I0123456 - 13' window. At the top, there are buttons for 'Disconnect', 'Send Changes', 'Cancel Changes', and 'Scan Unit'. Below these are tabs for 'Customer Info', 'Unit Info', and 'Messages'. The 'Unit Info' tab is active, displaying 'Unit Information'. The settings are organized into two main sections: 'Unit Information' and 'Connect-Back Information'. The 'Unit Information' section includes fields for Unit ID, Unit Type, Software Version, Message Volume (slider), BGM Volume (slider), Local Volume Enable (checkbox), Play Option (radio buttons), Time Zone (dropdown), DayLight Savings Active (checkbox), Unit Date / Time, Last Access Date, Unit Memory (MB), Password, Messages (dropdown), Interval (Seconds) (dropdown), and a Factory Reset Unit button. The 'Connect-Back Information' section includes IP address fields (IP 1, IP 2, IP 3, IP 4) with Apply and Clear buttons, Connect-Back Day (dropdown), Connect-Back Time (time picker), and Connect-Back Retries (dropdown). Numbered callouts 1 through 17 point to specific elements in the interface.

Callout	Field/Control	Value
1	Unit ID	I0123456
2	Unit Type	TELink 1250i
3	Software Version	03.06
4	Message Volume	Slider (0 to 56)
5	BGM Volume	Slider (0 to 56)
6	Local Volume Enable	Checked
7	Play Option	Linear Play
8	IP 1	10.1.1.217
9	Time Zone	(GMT-05:00) Eastern Time (US & Canada)
10	Unit Date / Time	04/06/2005 14:27
11	Last Access Date	04/06
12	Unit Memory (MB)	128
13	Password	TLKDIG
14	Messages	8
15	Interval (Seconds)	0
16	Factory Reset Unit	Button
17	Connect-Back Day	DAILY

Figure 2.3: Direct Connect Unit Info view

- 1. Unit ID:** The unique serial number for the TELink
- 2. Unit Type:** The TELink Model
- 3. Software Version:** The firmware version of the TELink
- 4. Message Volume:** This is a slider that allows you to adjust the volume of the music or messages loaded in the TELink.
- 5. BGM Volume:** This is a slider to adjust the volume of incoming music from the BGM port on the back of the TELink.
- 6. Local Volume Enable:** This checkbox allows you to enable or disable the ability for customers to change the volume of the TELink manually.
- 7. Play Option:** This allows you to select from the available play options:

- **Linear Play:** Plays messages in the order that they are loaded
 - **Shuffle Play:** Plays messages in random order
 - **Linear Music and Messages:** This mode sets aside slots 900-999 in the TELink for playing advertisements, announcements, etc. Slots 1-899 are treated as the music bed and play between the set Intervals. **Note:** The TELink is not capable of fading out the music to play the ads, therefore if the interval expires during a song, the next ad will play after the current song has finished. Therefore it is not advisable to use one large audio file in the music bed; instead it should be broken up into pieces if you want the ads to play in shorter intervals.
 - **Shuffled Music and Messages:** The same as above, with the exception that the music bed files are played in random order.
8. **IP1-IP4:** This is where the IP address(es) of the server(s) that the TELink will be connecting back to will be entered. Up to four are available so that you can have one or more backup servers in the event that the first is down, or you can use multiple servers to load TELinks at a faster rate. The former is advisable if you have an address that may change and the later if you have a large number of units loading messages on the same day. To enter/change an IP address, simply fill in the fields with the IP and click **Apply**. This will flag the field for change, and the extra step is required for safety reasons. To remove an IP, simply click the **Clear** button to flag the IP for deletion. Please bear in mind that if you remove all of the IP addresses, the TELink will not be able to perform a pull scenario.
 9. **Time Zone/Daylight Savings:** Here you can select the specific time zone that the TELink resides in to synchronize the time between it and the server. The DigiLAN software always sets the time in the TELink when it disconnects, so it is recommended that you make sure this time is accurate when scheduling loads/connect-backs.
 10. **Unit Date/Time:** Lists the date and time of the TELink at the time of connection.
 11. **Last Access Date:** This is the last time the unit connected/was connected to.
 12. **Unit memory:** Lists the amount of memory in the TELink. This amount ranges between 16MB and 1024MB.
 13. **Password:** The current password for the unit. This password can be change to anything from one to six alphanumerical characters in length.
 14. **Messages:** The number of message slots in the TELink. Up to 1000 message slots can be assigned to the unit. This will be dependent on message size and the amount of memory available on the TELink. Be sure to set this before you select the messages you are going to load to the device; you can only load up to the number of messages selected.
 15. **Interval:** This sets the number of seconds between messages being played. In standard Linear and Shuffle modes, the unit will play audio through the background port and fade the background out, play the current message, then fade the background back in before resetting the interval. With the Music and Messaging modes, there is no fading, and the messages are played after the current music slot is finished. In this case the interval is partly dependent on the length of the audio in the music slots.
 16. **Factory Reset:** This button allows you to reset the TELink to the original factory defaults; save the connect-back IP addresses are retained. The difference between

this and the manual two-button reset is only that the password is also reset to default when you click the Factory Reset button. If you have a custom password, be sure to change it back after resetting the unit in this manner.

- 17. Connect-Back Day/Time/Retries:** These fields are where you set the schedule for the pull scenario, and the number of times you wish for the TELink to attempt a connect-back before resetting the schedule. The default setting is Daily at 12:00AM with 10 retries. You can set the Day field to Daily, a specific day of the week, just the weekend, or Monday through Friday. The number of retries can be up to 99; each retry involves the TELink attempting a connection on every channel (ports 3002-3017) of each IP address.

2.4 Direct Connect – Messages

The **Messages** view displays a list of the current audio that is present in the TELink i series. Here you can add or remove audio with ease, as well as see how much room you have for additional or larger files.

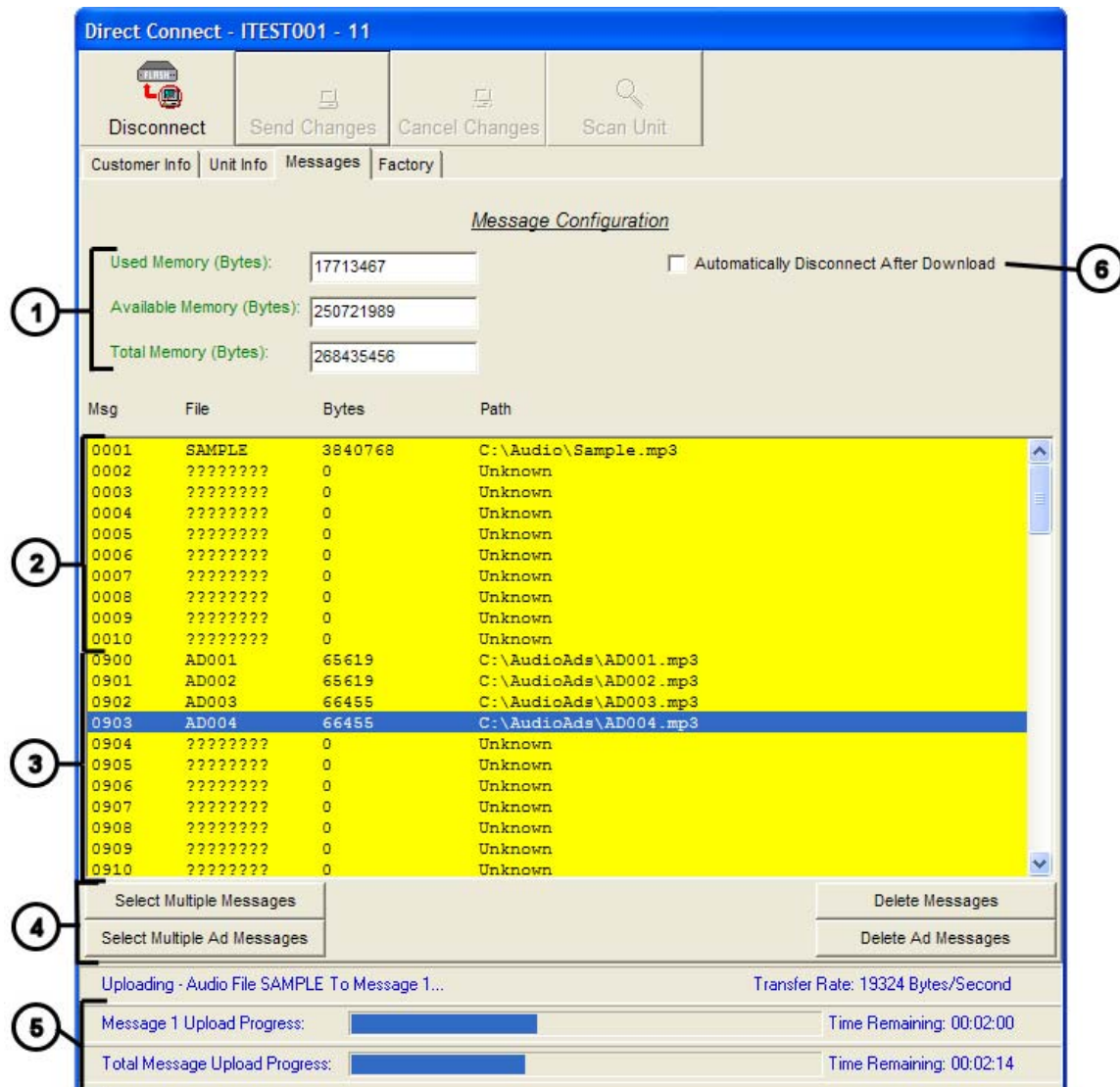


Figure 2.4: Direct Connection Messages view

- 1. Used/Available/Total Memory:** Shows how much memory is being taken up in the TELink.
- 2. Messages/Music List:** Allows you to see what messages are loaded to the TELink. To add a single message, simply double-click on the slot number you want to change and browse out to the location of that .mp3 file, then click **Open**.
- 3. Message List:** When using the Music and Messages option, slots 900-999 are reserved for the messages.

4. **Select/Delete Multiple Messages/Ad Messages:** If you want to add more than one message/ad, simply click on the **Select Multiple Messages/Ad Messages** button, browse out to the location of the files you wish to add, then click and drag a box around the multiple files, or use a combination of ctrl/shift and click to select the files, and then click **Open**. *Note:* If you select more files than there are slots, or more files than there is space available, DigiLAN will inform you and automatically adjust your selections to fit.
For deleting messages, just click on the **Delete Multiple Messages/Ad Messages**, select the slot range you wish to delete, and then click **OK**. DigiLAN will flag those files for deletion for when you send the changes. *Note:* When selecting the messages/ads to delete, the first slot shows up as being already selected; however, even if deleting the just first slot, you still have to click and select it to make the second selection box and in turn the OK button available. In other words, to delete just the first slot, you would click Delete Messages, then click on the drop-down arrow, click on 1, then click on the second drop-down arrow, select 1 again, and then click OK.
5. **Progress bars:** When sending audio to the TELink, two progress bars will become visible. The first shows the progress of the current message, and the second shows the overall progress of the entire batch of messages. An estimated amount of time left is displayed for each, and just above that you will see the average transfer speed of the transaction.
6. **Auto-Logoff:** When this box is checked, DigiLAN will automatically disconnect from the TELink when the changes that have been selected are sent (not just the messages, but changes made from the Customer and Unit info views as well).

2.5 Management – Customers

The Customer records are accessible from DigiLAN management by clicking **Manage**, then **Customers**. This allows you to view all of the information/settings of each unit that has connected, or has been connected to by the DigiLAN Management/Distribution applications. The available views are identical to those found when directly connected; save the Unit Info and Messages tabs are not modifiable.

Customer Record - Store 536

Search Connect New Load New Connect-Back Save Cancel

Customer Info Unit Info Messages

Customer Information Unit Attributes

Contact: Danny Ridgefield IP Address: 10.1.1.237

Phone: 603-622-0804 Ext.: 2200 Group: Eastern Time Zone

Acct. ID: 12345678

Customer: Store 536

Address: 1500 South Willow St.

City/State/Zip: Manchester NH 03104

Country: USA

Email: d.ridgefield@email.com

Notes: Eastern Time Zone Group. Updates Every Friday.

Unit AutoConfirm Email Message: Your on-hold messages have been suc

☒ Auto Confirm Email ☒ Attachment C:\AudioAds\audioads.zip

Total Customers: 2 Delete

Figure 2.5: Customer Record Customer Info view

1. **Search:** Opens up the search window, allowing you to find customers based on chosen criteria.
2. **Connect:** Attempts to connect to the current selected unit. **Note:** This option will not be available unless the unit has an IP to manually connect with.

3. **New Load:** Creates a new load record for the current selected unit.
4. **New Connect-Back:** Creates a new connect-back record for the current selected unit.
5. **Save/Cancel:** Saves or cancels the current pending changes to the Customer Info view.
6. **Navigation Buttons:** The outer arrows that look similar to the track/chapter skip buttons on a CD/DVD player remote will allow you to navigate to the first and last records. The inner arrows are for navigating forward or backward one record at a time.
7. **Delete:** Deletes current record. You will be prompted to confirm this action; deleting the customer record for a unit also deletes all existing load and connect-back records.
8. **IP Address:** The IP address last used to access the current unit. This can be changed if necessary in the customer record. If you manually connect to a unit, this field is automatically updated.

Notes regarding Customer records:

- The Customer Info view is the only view you can make changes to in the Customer records. The Unit Info and Messages views are present strictly for reference.
- The IP address field will not update for units that only operate in a pull scenario. If you have previously programmed a pull unit, it will show the last IP address you used to connect to it with.
- Even if there are no units in the database, you will still find the Default Records in the customer records. It cannot be modified from the Customers view.
- For information on the rest of the fields and views in the customer records, refer to Sections 2.2-2.4.

2.6 Default Record – Unit Info

The Default record contains data for loading TELinks that utilize the Connect-Back feature, but are not yet in the customer database. It can also be used for units that have been deleted from the database and need to be re-added. When a unit connects to Distribution, the software checks the database for that unit's ID; if no match is found, then the unit is added to the database and loaded with the settings and messages assigned to the Default Record.

The screenshot shows the 'Default Record - DEFAULT 1250i' window with the 'Unit Info' tab selected. The window contains various configuration fields for a unit. Callouts 1 through 5 highlight specific areas: 1 points to the 'Software Version' field (###), 2 points to the 'Play Option' section (Linear Play selected), 3 points to the 'Connect-Back IP' address fields (IP 1: 10.1.1.217), 4 points to the 'Unit Memory (MB)' dropdown (128), and 5 points to the 'Password' field (TLKDIG). The 'Connect-Back Information' section at the bottom includes fields for 'Connect-Back Day' (S&S), 'Connect-Back Time' (12:00:00 AM), and 'Connect-Back Retries' (10).

Figure 2.6: Default Record Unit Info view

- 1. Software Version:** Changing this field affects the available options for the 1250i.
- 2. Play Option:** Versions of the 1250i prior to v2.03 will only have Linear and Shuffle Play as options. V2.03 and later units add Linear and Shuffled Music with Messages.
- 3. Connect-Back IP Addresses:** Versions of the 1250i prior to v3.00 will only have a single Connect-Back IP. V3.00 and later will have four.

4. **Unit Memory:** You can select the default amount of memory for the 1250i, which will affect how many messages you can load as default audio.
5. **Password:** Sets the default password that Distribution will use when connecting to new units.

Notes regarding the Default Record Unit Info view:

- If you are missing play options, make sure you set the Software Version to match the new units that you have connecting back.
- When dealing with multiple memory sizes, it is best to leave the default record at the lowest amount of memory that you will be using. If the default messages add up to more memory than a unit connecting back has, it will only load as many messages as will fit in that memory. Unless a Connect-Back record is created for that unit for its next connect-back time, it will continue to attempt loading the remaining messages that it cannot fit into memory each time it connects.
- If you use the non-default password and are adding new TELink i series units to your database, be sure to leave the Default Record password as “TLKDIG” so that they will be able to fully connect. Likewise, if you also have units that you are re-adding to the database, you will need to be sure to change the password accordingly so that they can all be correctly set.

2.7 Default Record – Messages

To add messages to the Default Record, simply double click on a slot, and you will be presented with a menu with a list of options: Add/Change Message, No Change Message, and Delete Message. Select Add/Change Message to browse out and select the desired message to be loaded.

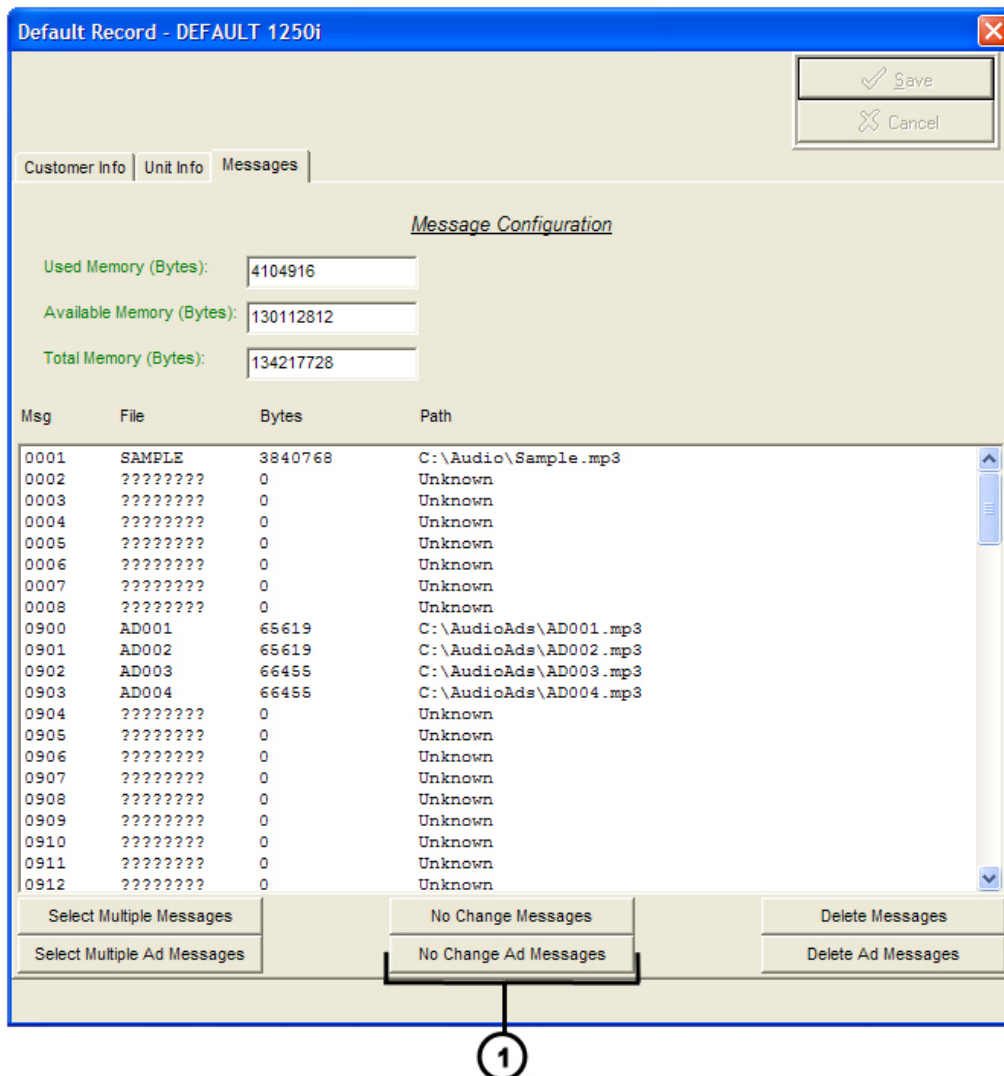


Figure 2.7: Default Record Messages view

1. **No Change Messages/Ad Messages:** The only real addition to the Messages view vs. the Direct Connect Messages view, this allows you to specify that the current message in the TELink i series does not get erased or replaced with another message. This will be a common option when re-adding a unit to the database that already has up-to-date audio loaded in it.

2.8 Group Editor

When you start to accumulate a large amount of TELinks in your database, creating automated loads for each one can start to become tedious and time consuming. The Group Editor (accessed by selecting “Groups” from the Manage menu) allows you to lump together TELinks that are to receive the same audio productions. By doing this, you can create a single group Load or Connect-Back for all of the units in that group, thereby saving you considerable time.

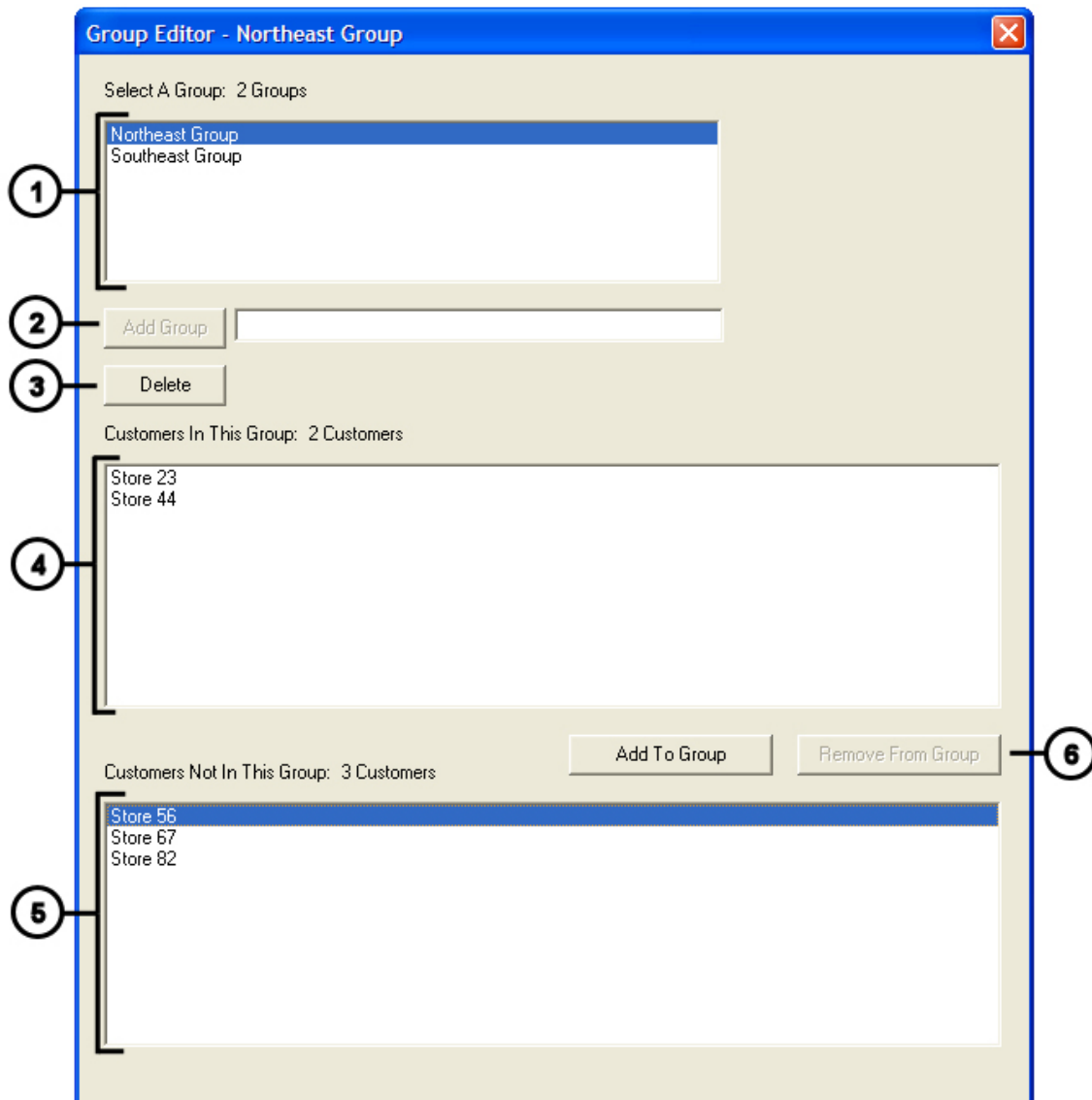


Figure 2.8: Group Editor

1. **Groups:** Displays a list of the current groups.
2. **Add Group:** To add a new group, type the name in the dialog box and click the **Add Group** button.

3. **Delete:** To delete a group, select the group you wish to remove and click **Delete**.
4. **Customers In This Group:** Displays a list of the customers currently in the selected group.
5. **Customers Not In This Group:** Displays a list of all of the customers that are not in this group.
6. **Add To/Remove From Group:** To add customers to the currently selected group, select the customer(s) you wish to add from the Customers Not In This Group window and click the **Add To Group** button. To remove customers, select the customer(s) you wish to remove from the Customers In This Group window and click the **Remove From Group** button.

Notes for the Group Editor:

- It is recommended that you only group TELinks that are of the same memory size if you plan on utilizing the full amount of memory for each unit. You should also only group together units that have the same settings, such as the play options, the number of messages, etc.
- If you create a group and do not populate it, it will automatically be removed from the groups list when you exit the Group Editor. The same holds true for groups that have all of their units removed.
- Bear in mind that the units that are in the Customers Not In This Group window only apply for that specific group. They may still be in another group; if added to the currently selected group, they will automatically be removed from the previous group(s) they were in.

2.9 Loads/Connect-Backs

Loads and Connect-Backs are means of automated message/music loading for the TELink i series. The configuration of each is identical; the only difference between a Load and Connect-Back is the direction of the initial connection. Loads are initiated by the Distribution application, and Connect-Backs are initiated by the TELinks themselves. To create a Load/Connect-Back, navigate to the desired customer unit from the Customer Records and click on the **Create New Load/Connect-Back** button. To access them, click the **Load/Connect-Back** menu and select **Loads/Connect-Backs**. Like the Default Record, you can modify the Unit Info and Messages views as though you were directly connected to the TELink. You also have the ability to **Search** for specific records, similar to the Search button in the Customer Records. Navigation buttons are available to scroll through multiple records, and you can **Delete** records that are no longer needed.

Load Record - Store 23 - Transaction # 16

Search

Save

Cancel

1

2

3

4

5

6

7

Customer Info | Unit Info | Messages | Load Info

Load Information

Transaction #: 16

Load Run Date: 5/24/2005

Load Run Time: 12:38:00 PM

Load Status: New Record - Not Scheduled

Activate Load

Delete

Figure 2.9: Load Records Load Info view

1. **Load Info Tab:** After making desired changes, switch to the Load/Connect-Back Info view.
2. **Transaction #:** Every new Load/Connect-Back is assigned a transaction number for reference.
3. **Load/Connect-Back Run Date:** This is the date you wish for the record to be processed. This gives you the ability to schedule multiple Loads/Connect-Backs for future changes.
4. **Load/Connect-Back Run Time:** This is the time you wish for the record to be processed.
5. **Load/Connect-Back Status:** This displays the current status of the record, such as whether the record has been processed and is completed or if it is still pending changes.
6. **Activate Load/Connect-Back:** This marks the record as active for processing in the database. You can re-activate a completed or failed Load/Connect-Back if you wish to recycle the same record, rather than creating a new record for every change to that unit. This can save time and reduce the number of the Load/Connect-Back records that you need to search through. If you do not activate a Load/Connect-Back record, it will not be processed at the scheduled time.
7. **Save/Cancel:** Once you have made your desired changes and have activated the Load/Connect-Back, be sure to save those changes or they will be lost.

Notes regarding Loads/Connect-Backs

- In order to prevent TELinks from having their memory overloaded, the Loads/Connect-Backs Keep a running total of the available memory in the unit. Because this can't be updated in real-time (due to not being connected to the unit), every new Load/Connect-Back you create that adds a message to the unit increases the total memory used. Therefore you can't create unlimited Loads/Connect-Backs ahead of time, as the memory available will eventually be exceeded.
- For step-by-step instructions on creating Loads/Connect-Backs, refer to the DigiLAN Quick Start Guide.

2.10 Group Loads/Connect-Backs

Group Loads/Connect-Backs allow you to take a group you've created and change the settings/audio for all of the units in that group. When you first open the Group Load/Connect-Back window, you'll notice that the majority of the fields are blank. If you do not change a field, whatever is currently set/loaded in a TELink will remain as is. For example, if some of your units have shuffle and some are using linear play, not changing the play options means those units will keep their individual settings.

Group Load Record - Northeast Group

Select A Group: Northeast Group

OK Cancel

Unit Info Messages Load Info

Load Information

Load Run Date: 5/25/2005

Load Run Time: 4:07:01 PM

Load Status:

☐ Schedule Now

☒ Schedule Later

Figure 2.10: Group Load/Connect-Back Load Info view

- 1. Select A Group:** Select the group you wish to create Loads/Connect-Backs for.
- 2. Load Status:** If you select Schedule Now, the Loads/Connect-Backs will be created as being activate. If you select Schedule Later, you will have to manually activate each Load/Connect-Back for each unit in the group.
- 3. OK/Cancel:** Once you've made your changes and are satisfied, click **OK**. Individual Loads/Connect-Backs will automatically be created for each unit in the group.

Notes Regarding Group Loads/Connect-Backs:

- It is recommended that you change as few settings as possible on the Group Loads/Connect-Backs. This will allow maximum compatibility with multiple 1250i's with different memory sizes and time zones; as well as preventing unwanted setting changes.
- You should use the Schedule Now option as often as possible when creating group loads/connect-backs. This will prevent having to go back and activate each individual load/connect-back, thereby increasing the chance of missing a record.

2.11 Load/Connect-Back Statistics

You have the option of viewing the statistics of your Loads/Connect-Backs from the Loads/Connect-Backs menu. This will help establish whether all of your Loads/Connect-Backs were successfully completed, or whether there are some still pending or failed to process.

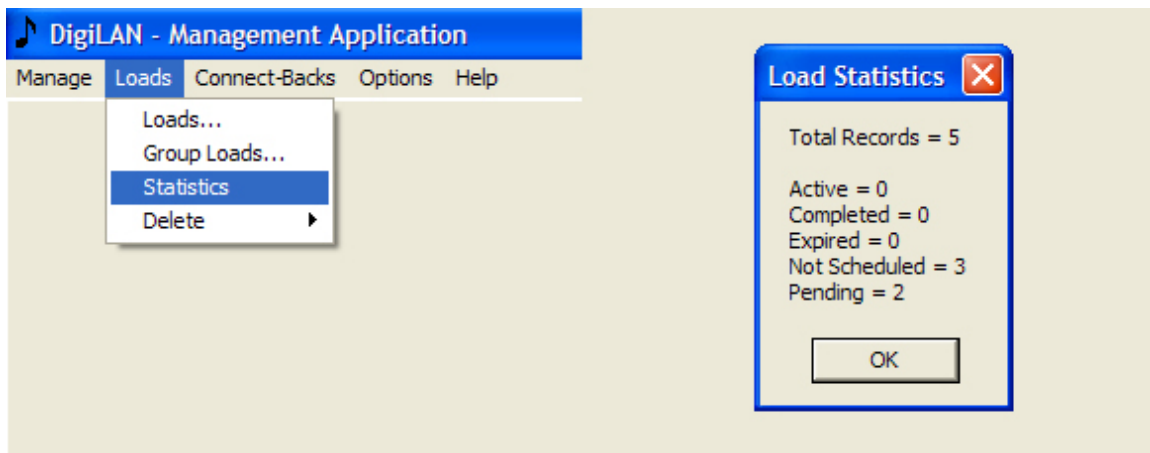


Figure 2.11: Load Statistics view

Total Records: The total number of Load/Connect-Back records in the database
Active: Records that are currently being processed by the Distribution application
Completed: Records that have finished being processed
Expired: Records that have exhausted all retries and have failed to process
Not Scheduled: Records that have not been activated
Pending: Active records that are waiting to be processed

2.12 Delete Loads/Connect-Backs

DigiLAN has the option to delete Load/Connect-Back records in bulk from the Loads/Connect-Backs menu.

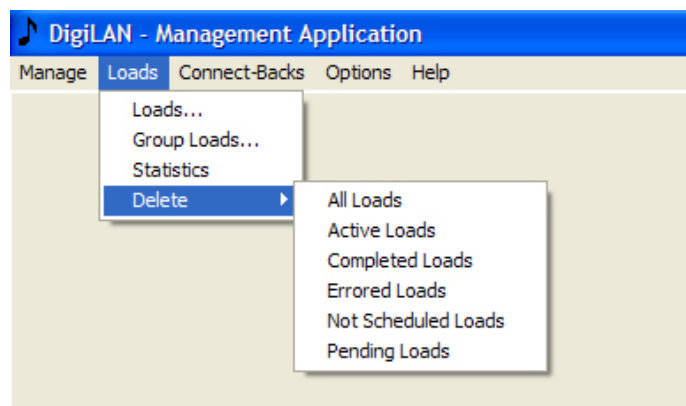


Figure 2.12: Deleting Loads

2.13 Options – Register Dealer Key

You will find the option to register a dealer key in DigiLAN Management; this is for access to specific types of TELink i series units. Contact your salesperson for more information.

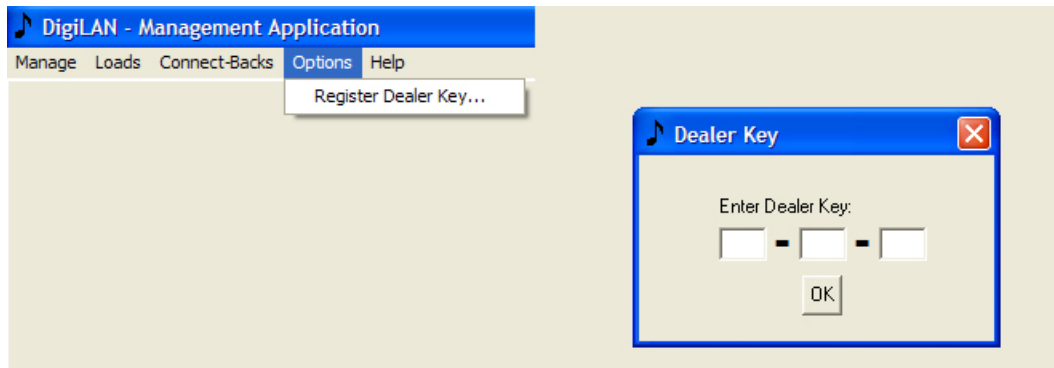


Figure 2.13: Dealer Key view

2.14 Help – About

Under the Help menu is the About option, which displays the current version of Management that you are using. You may be asked for this when calling for technical support.

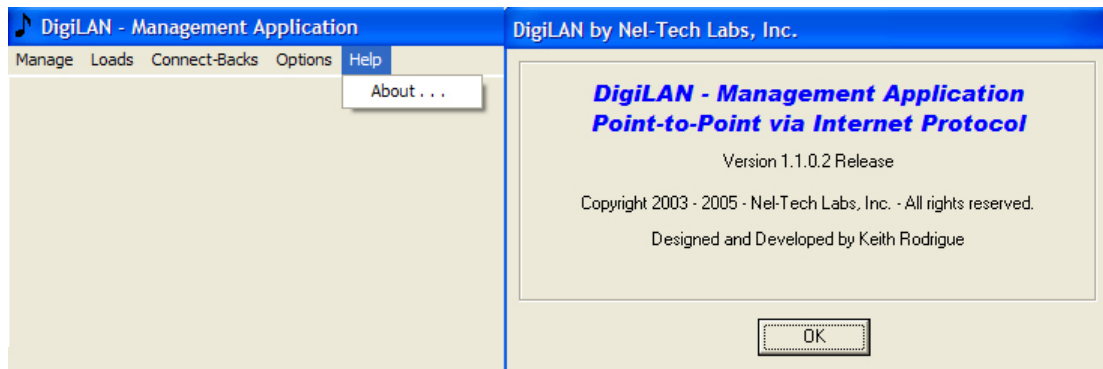


Figure 2.14: About view

CHAPTER 3

Distribution

Distribution handles all of the automating loading of TELinks in the field. Anything you could do while manually connected to a unit through Management, you can have automatically changed via Distribution. Utilizing Connect-Backs and Loads in conjunction with Distribution will greatly reduce the amount of time you will need to spend tending with the TELinks. This in turn, will increase the number of TELinks your business can handle, which of course will in turn increase your profits.



3.1 Distribution Application Window

The first thing you'll see after launching DigiLAN Distribution is the application window. At the bottom is a log window, and the top has a toolbar with the channel buttons.

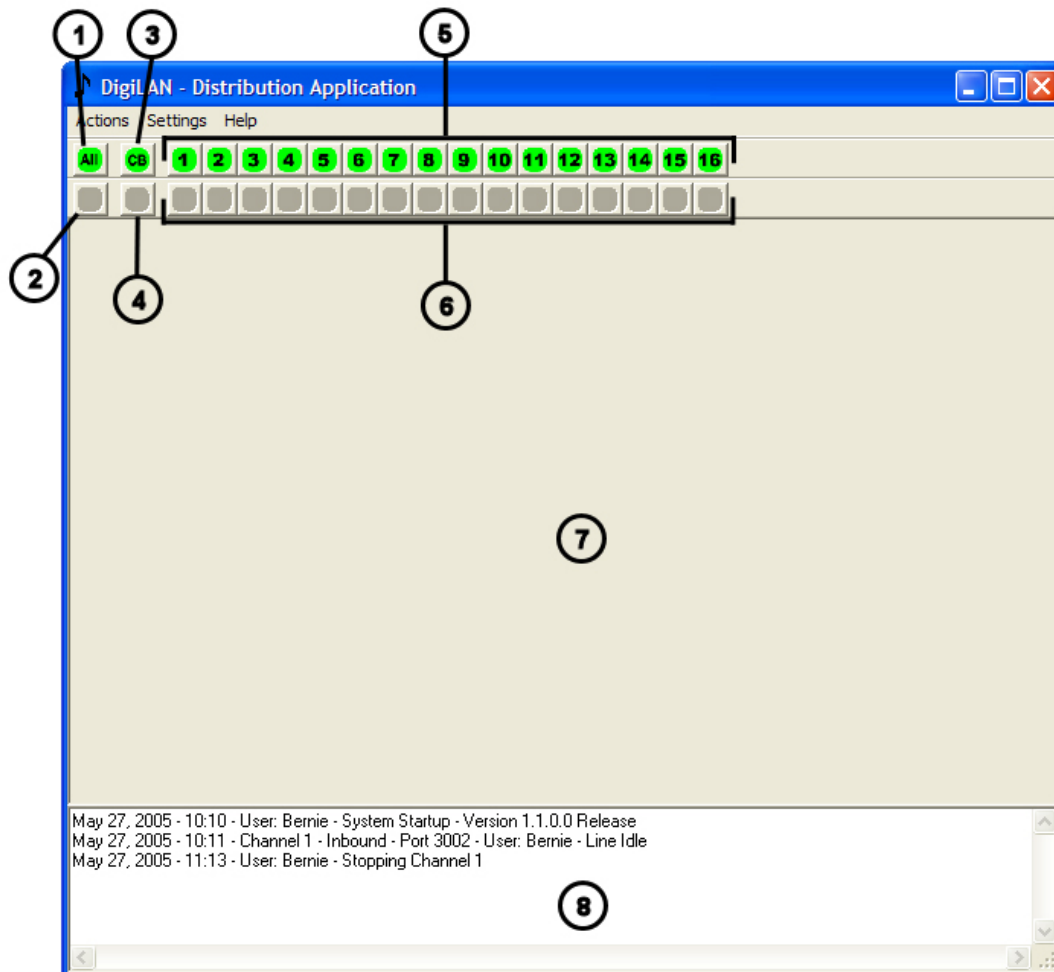


Figure 3.1: Distribution Main view

1. **All Channel Start:** Starts all channels that have been flagged as auto-start.
2. **All Channel Stop:** Stops all channels that have been flagged as auto-start.
3. **Connect-Back Channel Start:** Starts the Connect-Back verification channel for legacy TELinks.
4. **Connect-Back Channel Stop:** Stops the Connect-Back verification channel.
5. **Channel Start:** Sixteen channels can be started independently of one another.
6. **Channel Stop:** Each channel can be individually shut down.
7. **Channel View:** This is where the channels will be launched.
8. **Log Window:** This window displays the data from each channel that is being recorded in their corresponding log files.

3.2 Channel Window

Each channel number you click on opens a channel window that makes a connection to the DigiLAN database. These channels either listen on a specific port for incoming connections, or poll the database for outgoing loads.

The screenshot shows a window titled "Channel 1 - Inbound On Port 3002 - Bernie". The window has a blue header bar. Below the header, there is a section labeled "Checking - Messages". The main area of the window contains several fields with labels and values:

- 1. Channel Designation: Channel 1 - Inbound On Port 3002 - Bernie
- 2. Task Display: Checking - Messages
- 3. Customer: Store 23
- 4. Transaction: 26
- 5. Unit ID: ITEST001
- 6. Load Attempt: (empty field)
- 7. Status: Loading - Message 1 - SAMPLE
- 8. Audio Progress: A blue progress bar showing approximately 25% completion.
- 9. Connect Time: 37

Figure 3.2: Channel window

1. **Channel Designation:** Lists the channel number and whether it is Inbound (and what port) or Outbound.
2. **Task Display:** Shows the current task being processed by the Distribution Application.
3. **Customer:** Displays the current customer that is connected to that channel.
4. **Transaction:** Shows the transaction number of the load/connect-back being processed.
5. **Unit ID:** The internal Serial number of the TELink.
6. **Load Attempt:** Shows the number of retries if the first is unsuccessful.
7. **Status:** Shows the commands being executed for the current task.
8. **Audio Progress:** Shows the progress of the current audio file being loaded.
9. **Connect Time:** The total amount of time that the TELink has been connected.

3.3 Distribution Options

Under the Settings menu you will find the Options page for adjusting how the channels operate.

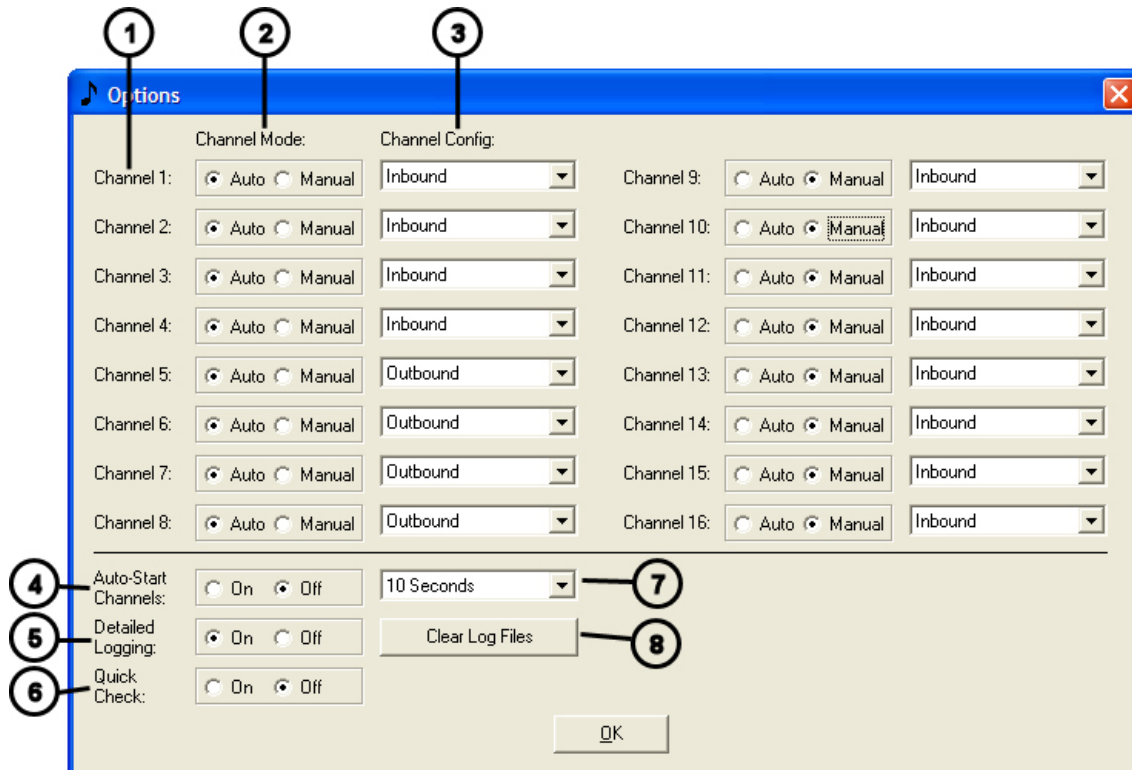


Figure 3.3: Distribution Options window

1. **Channel:** Channel numbers correspond with the numbered channel buttons in the application window.
2. **Channel Mode:** Specifies whether the channel is Auto or Manual. All channels set to Auto will automatically open when the **All** channel button is clicked, or when the Distribution application is launched if the Auto-Start Channels is enabled.
3. **Channel Config:** Sets channel to either accept Inbound connections, or process Outbound loads.
4. **Auto-Start Channels:** All channels flagged Auto will start automatically when the Distribution application is opened.
5. **Detailed Logging:** Toggles whether the log files will display every command processed by Distribution, or summarized commands.
6. **Quick Check:** If a TELink connects to Distribution that does not have an active Connect-Back record, Distribution will skip the message scanning process and immediately disconnect.
7. **Channel Start timer:** Sets the amount of time between each channel that is auto-started. Opening a channel creates a connection to the database, a task which is

processor and memory intensive and must be done one channel at a time. Increasing this time will allow slower machines to open the channels correctly.

8. Clear Log Files: Deletes all of the information in the channel logs.

Notes regarding DA Options:

- If you are having connectivity issues, make sure you turn on Detailed Logging, as you may be asked to email your log files for troubleshooting.
- If you have a large number of TELinks that connect-back on a regular basis, you may want to turn on Quick Check so that units that do not have a connect-back schedule can disconnect immediately, freeing up the channel being used.
- While the Distribution application does not run as a service, you can schedule it to run on a set schedule using the Scheduled Tasks feature in Windows. It is located in the Control Panel.

CHAPTER 4

DigiLAN Tools

This chapter will cover the maintenance and configuration tools that are included with the DigiLAN software. These tools will help you maintain your database, as well as configure some of the network settings for the TELinks before and after they are sent out to the client sites.



4.1 DigiLAN System Configuration

The DigiLAN Configuration utility allows you to configure server and email settings for the Management and Distribution applications.

The screenshot shows the 'DigiLAN - System Configuration - Version 1.1.0.0 Release' window. It has three main sections: 'Database Server Information', 'Email Information', and 'System Settings'.
1. **Database Server Information:** Contains fields for 'Server' (10.1.1.201), 'Port' (23165), 'UserName' (PUBLIC), 'Password' (empty), and 'Data Path' (digilandb).
2. **Email Information:** Contains fields for 'SMTP Server' (mail.mailserver.com) and 'From Email' (bernie@mailserver.com).
3. **System Settings:** Contains two dropdown menus for 'Load Retry Attempts' and 'Load Retry Interval', both set to 5.
A 'Save' button is located at the bottom right of the window.

Figure 4.1: DigiLAN System Configuration

1. **Server:** This is the server where the DigiLAN database will be located. There are three different options for entering the server:
 - localhost: this is the default option; use it when you have a single machine that acts as a standalone server.
 - Server name: if you know the name of the server on your network, you can type it here.
 - IP address: If your server uses a static IP address, you can type it here.
2. **Port:** This is the port the DigiLAN software uses to communicate with the server.
3. **User Name/Password:** If a username and password are required to access the server, enter them here. Default is PUBLIC/No Password.
4. **Data Path:** The path to the folder in which the DigiLAN database is stored. It can be typed in, or you can click on the folder icon to the right and browse to the location. Default is digilandb.
5. **SMTP Server:** This is the address for your outgoing mail server. This is required for using the confirmation email option.

6. **From Email:** This is a valid email address that will be used by Distribution when sending confirmation emails.
7. **Load Retry Attempts:** You can set the number of retries for failed load attempts here. Once the retries are expired, the load record will be marked as incomplete.
8. **Load Retry Interval:** This is the amount of time in minutes to wait between load retries.

4.2 DigiLAN Database Maintenance

The DigiLAN Database Maintenance application (accessed from the DigiLAN programs menu via the “DigiLAN DBMaintenance” shortcut) provides you a tool with which to backup, restore, and pack/re-index your customer database.

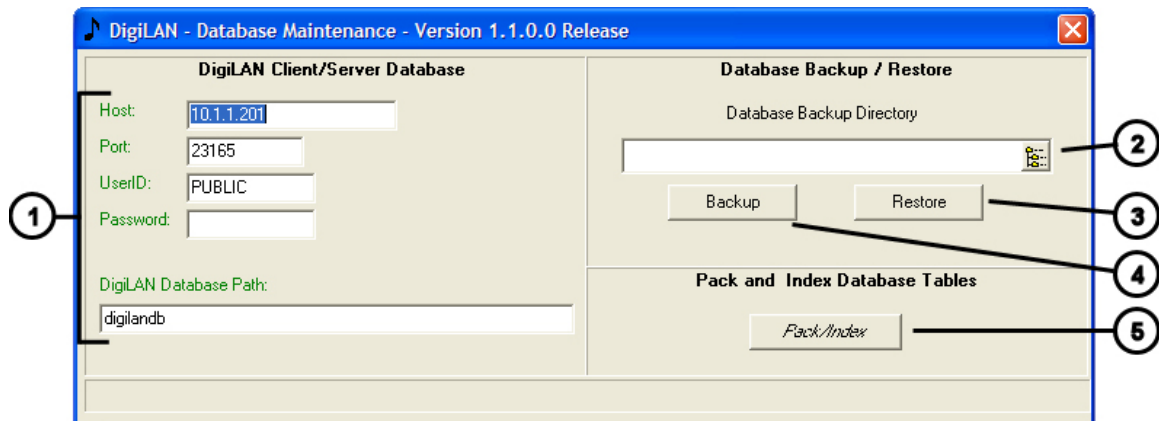


Figure 4.2: DigiLAN Database Maintenance

- 1. Database Information:** Information regarding the current database, which is accessible/modifiable from the DigiLAN System Configuration utility.
- 2. Database Backup Directory:** Allows you to specify where the backup folder is located. You can either type the location or click on the folder icon to the right and browse to the directory.
- 3. Restore:** Restores the database from the selected backup directory.
- 4. Backup:** Backup the current database to the selected backup directory.
- 5. Pack/Index:** Packs and re-indexes the current database, possibly fixing/eliminating records that have become corrupt. Backup your database first.

4.3 TELink IP Configurator

The IP Configurator is a utility for locating and configuring TELink i series units on your network. The Configurator scans the network, and reports back with a list of units found, displaying their MAC addresses as well as whatever IP address each unit has been assigned. In the event of a unit not being found, there is a manual entry option that will still allow you to send it the necessary configuration information.

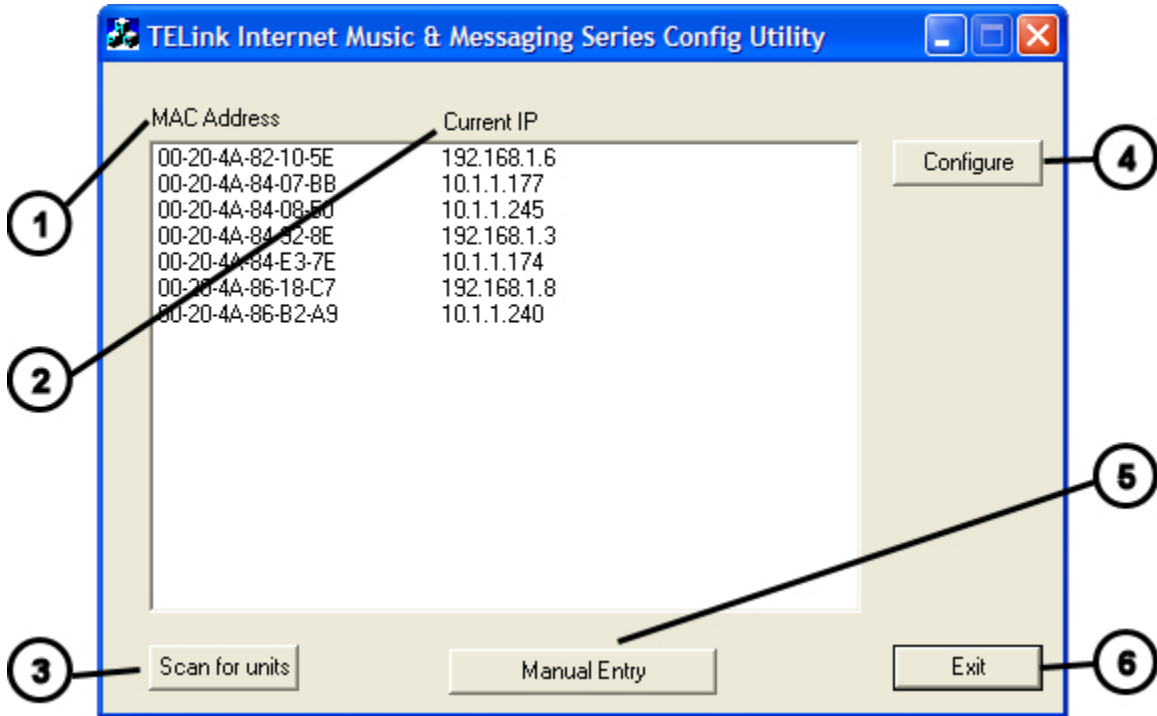


Figure 4.3.1: TELink IP Configurator main window

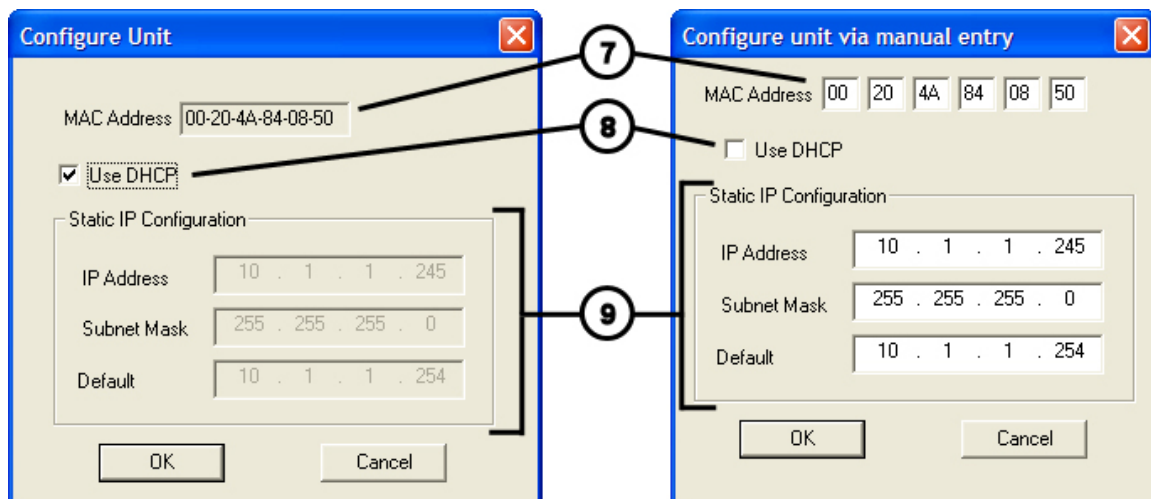


Figure 4.3.2: IP Configure prompts

1. **MAC Address:** The physical address of the TELink on the network
2. **Current IP:** The network address currently assigned to the TELink.
3. **Scan for units:** Scans the network for the presence of TELinks.
4. **Configure:** Select the TELink you wish to configure, and then click this button to open up the “Configure Unit” window.
5. **Manual Entry:** If you cannot see the unit you wish to configure, click here to open up the “Configure unit via manual entry” window.
6. **Exit:** Exits the IP Configurator
7. **Configure/Manual MAC Address:** For the standard Configure Unit window, the MAC address displayed is the one you selected when you clicked **Configure**. For the **Manual Entry** option, you will need to enter the MAC address listed on the bottom of the TELink in order to configure it.
8. **Use DHCP:** Specifies whether the unit will get its IP address automatically assigned.
9. **Static IP Configuration:** If DHCP is unchecked, you will need to manually enter the IP information for the TELink. The Subnet Mask and Default Gateway **MUST** be set correctly in order for the unit to perform a Connect-Back.

4.4 TELink CB Configurator

The CB Configurator is a utility for setting the Connect-Back IP addresses on the TELink i series units while they are at customer sites. It can also be used to test the connectivity of the server that is running the Distribution application. After running the TELink IP Configurator to locate/configure the local IP address of the TELink, the CB Configurator can then connect to that unit to change/test its connect-back addresses.

The screenshot shows the TELink CB Configurator window with two tabs. The top tab, 'Change Connect-Back IP Addresses', contains fields for 'Unit's IP Address' (10.1.1.245) and 'Unit's Password' (TLKDIG). Below these are buttons for 'Connect', 'Disconnect', and 'Read CB IP's'. To the right, there are four rows for 'Connect-Back IP Addresses' (IP 1 to IP 4), each with a 'Change' and 'Clear' button. The bottom tab, 'Confirm Connect-Back IP Addresses', shows the same four rows with 'Confirm' buttons. A green status bar at the bottom right of the bottom tab displays the message 'Confirmation Successful On Port 3010!'. Numbered callouts 1 through 8 point to the following elements: 1. Unit's IP Address field, 2. Unit's Password field, 3. Connect button, 4. Disconnect button, 5. Read CB IP's button, 6. Confirm button for IP 1, 7. Status bar area, and 8. Change button for IP 1.

Figure 4.4: TELink CB Configurator

1. **Unit's IP Address:** Input the address of the unit you wish to connect to.
2. **Unit's Password:** Input the password of the unit you wish to connect to.
3. **Connect:** Click here to connect to the unit and read its Connect-Back IP addresses.
4. **Disconnect:** Disconnect when you are satisfied with the changes.
5. **Read CB IP's:** Re-reads the unit's Connect-Back IP's
6. **Confirm Connect-Back IP Addresses:** Allows you to test the connectivity of the server that is running Distribution. Clicking **Confirm** will cause the application to make an attempted connection to that IP address on ports 3002-3017, and will report back the first successful attempt.
7. **Status Bar:** Reports the current action being taken.
8. **Change Connect-Back IP Addresses:** Allows you to set the new Connect-Back addresses for the TELink. Simply type in the new address and click **Change**. Click **Clear** if you wish to just erase that IP.

Notes regarding TELink CB Configurator:

- If you clear all of the Connect-Back IP addresses, that unit will no longer be able to perform a Connect-Back to the server.
- If you are testing/troubleshooting the connectivity from the TELink to the server, keep in mind that Confirming the Connect-Back IP address from the CB Configurator is not a guarantee that the TELink can connect as well. The CB Configurator uses any available outgoing port to make its connection, whereas the TELink specifically uses port 10001. If the client site has most of their outgoing traffic blocked, this can interfere with the TELink's ability to connect to the server, while still allowing the CB Configurator to get through.
- The **Read CB IP's** is recommended after setting your new Connect-Back IP addresses to confirm that those changes have been registered by the TELink.

Appendix A

Hardware Configurations

This section will cover various hardware and network configurations that should be taken into account when setting up the DigiLAN software to run on your business's network. It will also touch upon network configuration for the TELink i series at the client site.



A.1 DigiLAN on a Standalone Computer

The most typical of DigiLAN setups is that of a standalone client/server installation. Both the server portion of DigiLAN and the client software are on a single machine that is connected to the internet via cable or DSL. The TELink should be configured to connect to the external IP address of the cable/DSL modem. The modem is typically connected to a router with a built in switch for the purposes of providing internet access to multiple computers. These computers operate on the local network, each having its own IP address. In order for the TELink to be able to communicate with the designated DigiLAN machine, the router must be properly configured to transmit data that comes in on TCP ports 3001 through 3017 to that machine on the network. This process is known as Static Routing, or more commonly, Port Forwarding. If this is not done, the TELink will attempt to make a connection to the external IP and not make it past the router, as the router will not know where to send the data.

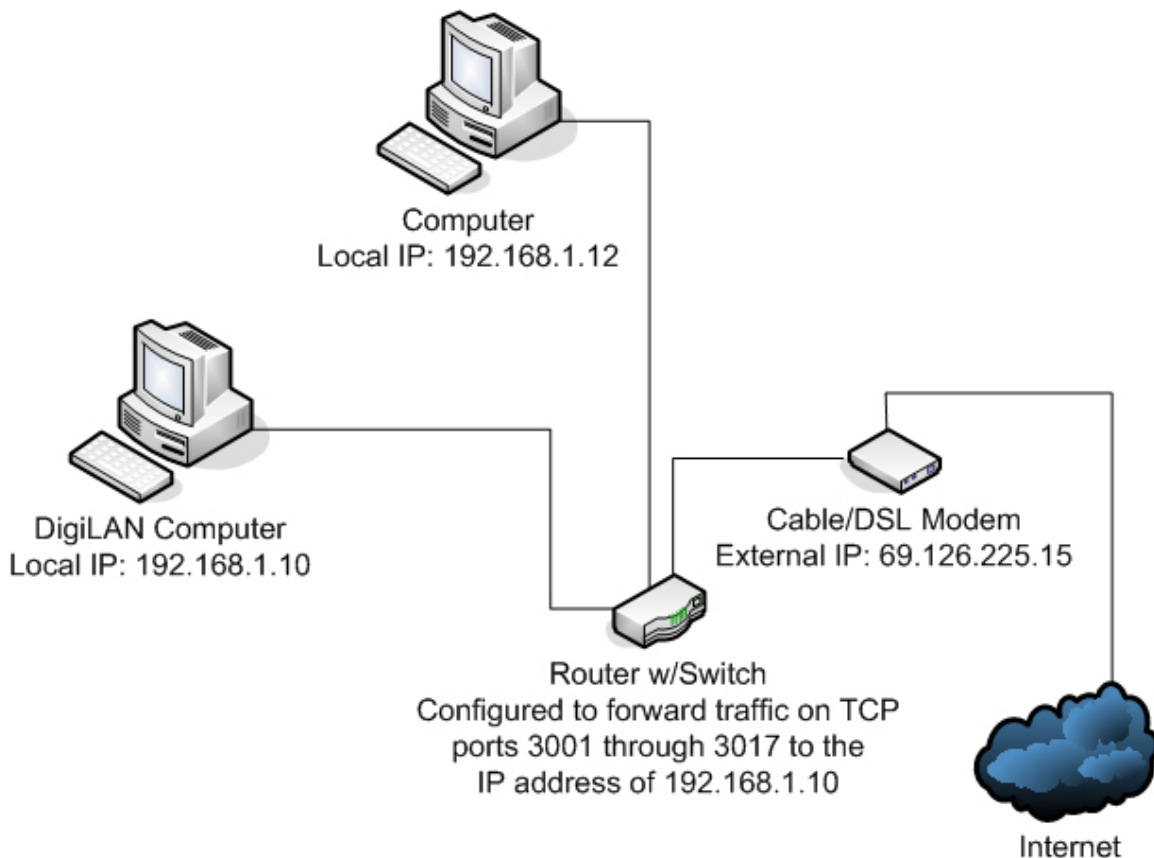


Figure A.1: A typical network setup for a standalone DigiLAN server

A.2 DigiLAN on a Server w/Client Access

An alternative setup for DigiLAN is to have a machine dedicated as the server for handling all incoming connections; with separate client computers to access the server's database. This allows the server to be placed in a secure location to protect your database of customers, and multiple users can rely on their own machines for accessing that information. For this setup, you would perform a Client/Server install on the server computer, and a Client install on each machine you wish to have as a client. Then run the DigiLAN Configuration on each client and input the server's IP address in the Server field (See **Chapter 4: DigiLAN Tools** for more information), and the appropriate username and password, if necessary. The server will be responsible for the customer database, as well as running the Distribution application to handle incoming connections/outgoing loads. The clients will run the DigiLAN Management application to facilitate connecting to TELinks and scheduling Loads and/or Connect-Backs.

The port forwarding settings for the router will be the same as the Standalone setup, with the TCP ports 3001-3017 being forwarded to the IP address of the computer being used as the server. Bear in mind that the connection from the clients to the server occurs on port 23165; if you have firewall software running on those machines, you may need to configure them accordingly.

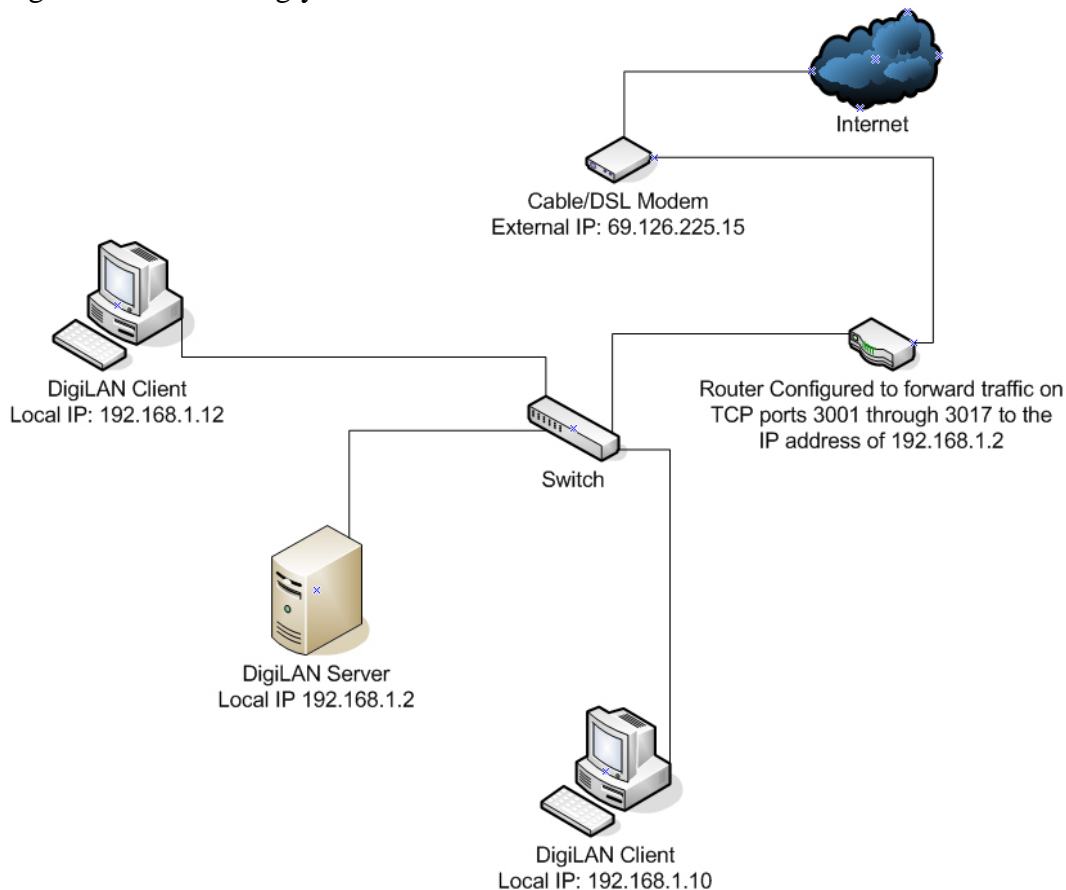


Figure A.2: A typical client-server setup for DigiLAN

A.3 Client Setup – Pull

The majority of clients will most likely not warm up to the thought of holes being punched into their router, in which case you will need to set the TELink to connect back to your server on a regular basis. To do this, the client site needs at minimum to allow the TELink outgoing Internet access to your server on TCP ports 3001-3017. If the client's network uses DHCP (auto-assigned IP addresses), then all you typically need to do is plug the TELink into the router or a switch attached to the router/modem. As long as the TELink has outbound internet access, the setup process should be complete. If the client uses static IP addresses, or if the TELink is not getting an auto-assigned address, then you may need to manually assign the unit an address with the IP Configurator on the Installer Utilities CD.

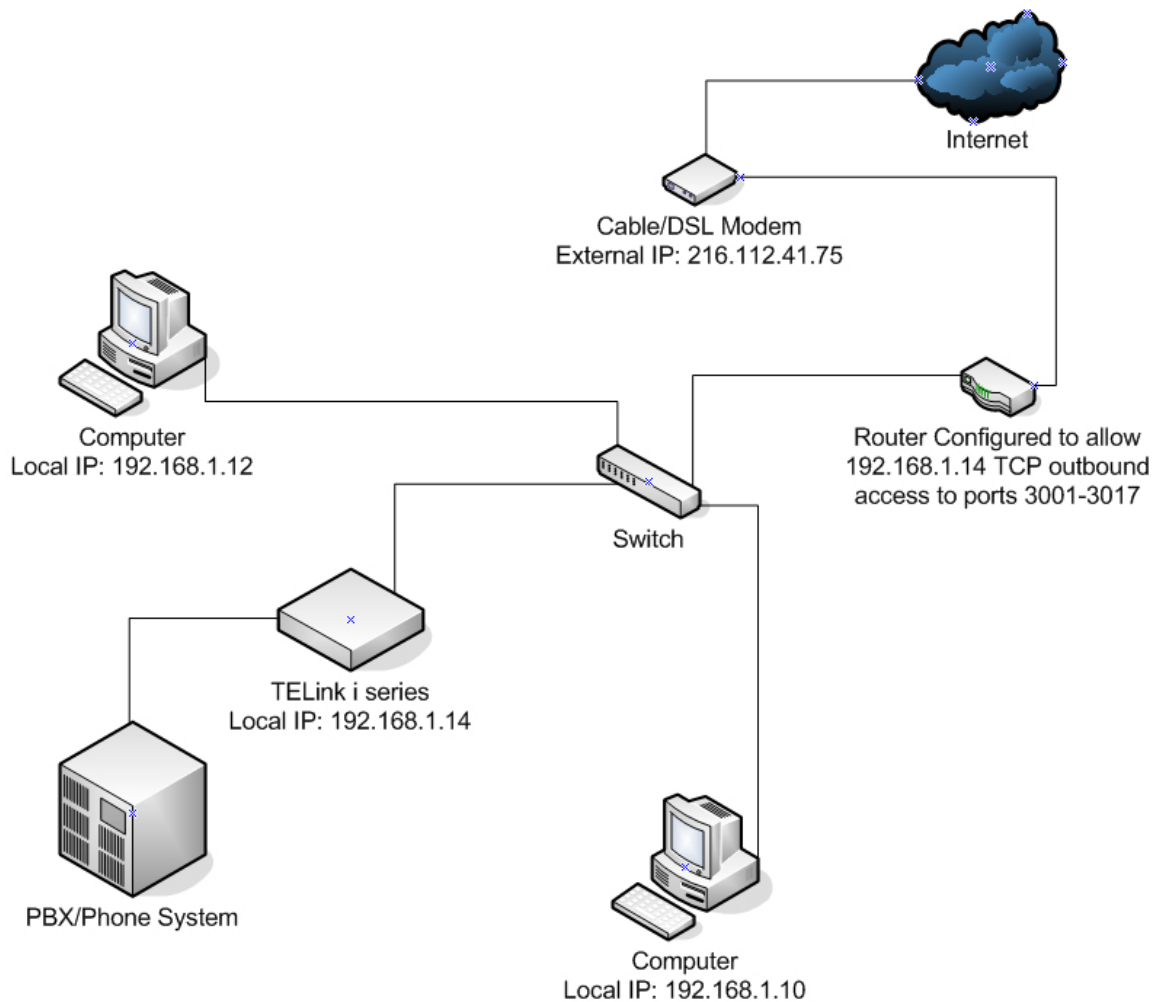


Figure A.3: Typical client pull setup

A.4 Client Setup – Push

Some smaller clients, or those with which you have a lot of trust, may allow you to connect to the TELink through their router/firewall. In order to successfully do this, they will need to configure their router/firewall to allow incoming connections to TCP port 10001 be forwarded to the IP address of the TELink on their network. This will allow you to use Loads to push new audio whenever needed, as well as make manual connections to the TELink to perform any changes that are needed right away. There are no real security concerns with this method, as the TELink is only capable of communicating with the DigiLAN software, and can only accept MP3 files, with no outgoing file transfer capability.

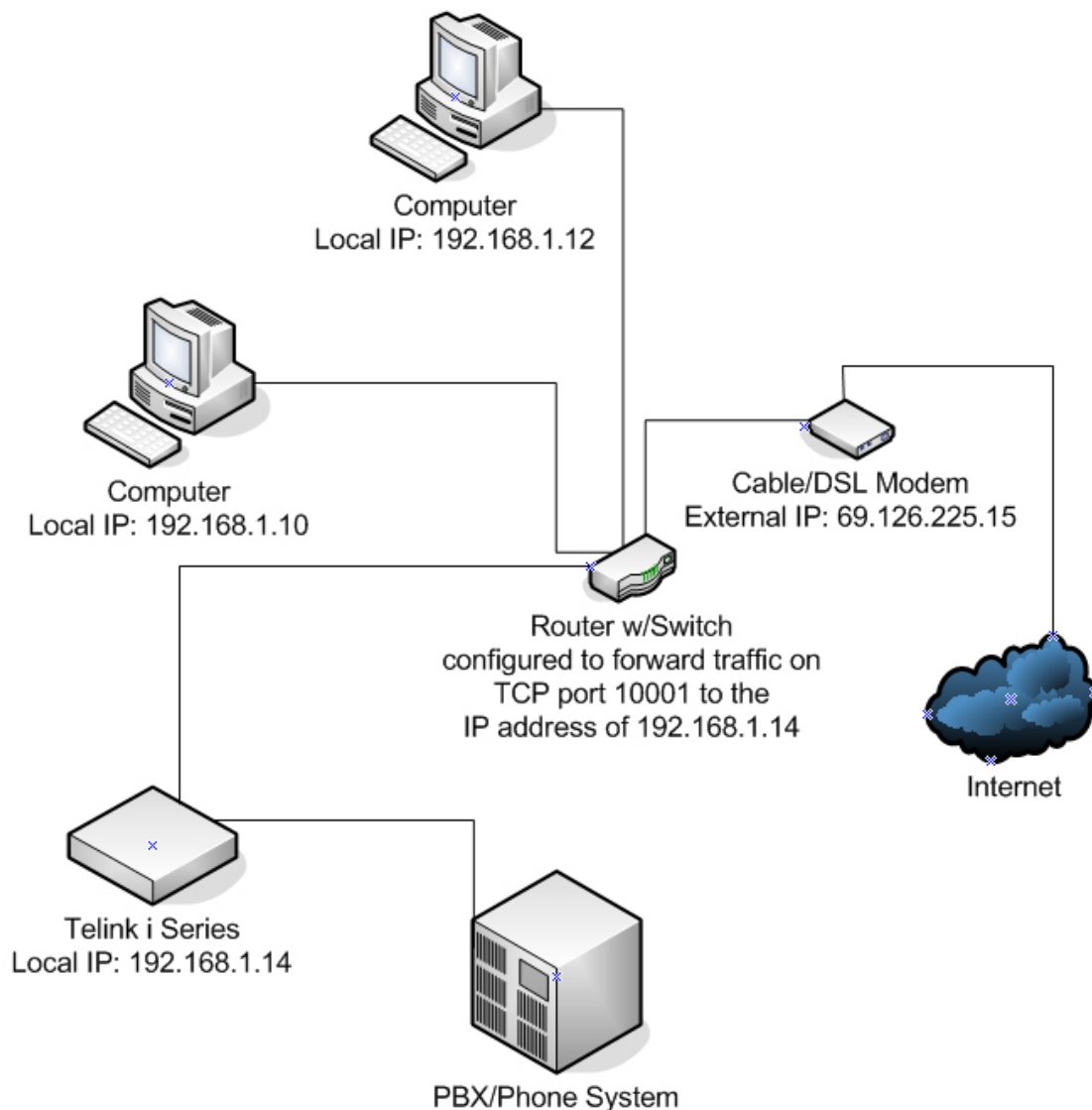


Figure A.4: Typical client push setup

A.5 DHCP vs. Static IP Addresses

If you are setting up TELinks to connect back to your server, it is *imperative* that you obtain a static IP address from your Internet service provider. If you have a dynamically assigned address (DHCP), your external IP address can change periodically. Since you will not necessarily know when this will happen, nor will you know what your new address will be, this can cause all the units you have connecting back to no longer be able to reach the server. You would then need to have every one of those units re-configured to connect to that new address, which would potentially be a great inconvenience. As long as your external address is static, all of your pull-based clients should be safe.

If you are using the push scenario, then it will be important for the client to have a static IP address as well. That way you won't need to call them up every time you wish to connect to the TELink and find out what their latest IP address has been changed to.

The same rules apply for your internal networks as well. For a pull scenario, your server should have a static internal address so the router can forward to it at all times, and the client using the push scenario should have the TELink using a static address for the same reasons.

The only times DHCP will be acceptable is for your server if you are planning all push scenarios, or your client TELinks if they are all set for pull scenarios.

A.6 Backing Up DigiLAN

As mentioned in the System Requirements (pages 8-9), a backup solution is highly recommended. Ideally you will want to have at least two prior backups available at all times, in the event of a database corruption. While the DBMaintenance application has the ability to re-index the database, it may not always repair the corruption. Time down is often money lost, and having those extra backups as insurance can potentially save a lot of money. A good recommendation would be to have a weekly backup, with a monthly backup in reserve in the event that the former is corrupt as well.

The default location of the DigiLAN customer database is C:\CodeBase\server\digilandb

A.7 Licensing

The DigiLAN software by default comes with a ten-user license. This means there can be ten up to connections to the database at a time. If you wish to open more than ten channels in Distribution, then you will need to upgrade to a fifty user license. Not only will this allow you to open up to sixteen channels in Distribution, but you can open up to fifty channels if you use multiple computers with external IP addresses. Contact your salesperson for more details. **Note:** Running Management counts as a license.

Legal Information

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