

NEC

Dterm[®] Voice Security Recorder

General Description



Introduction

This document describes the features and capabilities of the NEC Dterm Voice Security Recorder (Dterm VSR) and the associated Desktop software solution.

The Dterm VSR consists of a USB device that taps across the digital extension pair of a Dterm Digital extension port and software that enables the user to manage their stored calls.

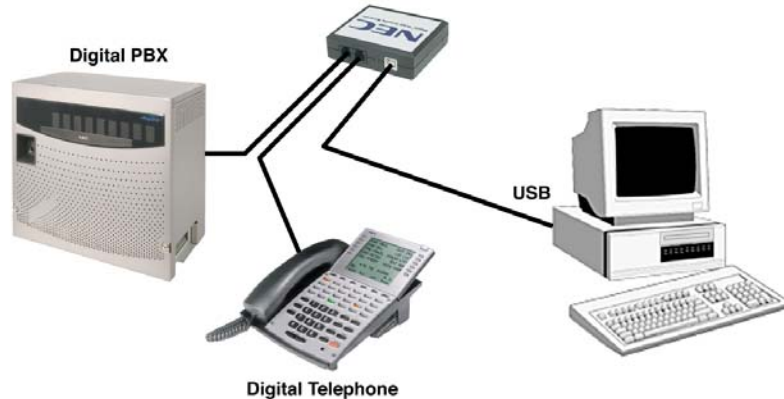
Advantages Of Digital Recording

The advantages of Digital Recording over analog 'handset tap' devices are clear:

- Higher quality recording
- Separate channel recording (send/receive) is possible
- Automatic start/stop of recording when phone is in use
- Association of caller ID or other call related information (release 2)
- Doesn't tie up a PC sound card
- Easy plug n' play installation (via USB)
- Speakerphone conversations can be recorded

Connectivity

The diagram below shows the connection configuration of the Dterm VSR device and the local desktop PC.



The Dterm VSR hardware simply connects in-line at the telephone user's desktop. No power is required and because the in-line connection is simply a metallic wiring of the 'in' and 'out' connections, Xtension Recorder does not affect the telephone operation in any way with or without connection of the host PC via USB.

The USB Device

This section describes the NEC Dterm VSR USB device hardware specification.

The device is constructed in a UL94 V-0 black polymer and measures 84mm x 72mm x 25mm (or 3" x 2 3/4 " x 1").



Device Connections

The VSR device has 3 connectors:

- ❑ One PC USB connector, from which the device derives its power and streams all speech and control channel information up to the host PC and the Desktop software application.
- ❑ Two Digital Phone line connectors that passively 'tap' across the Dterm digital connection and 'listen' in high impedance mode to the signalling on the line.

Device Performance

The device does not interfere with the communication between the NEC phone system and the Dterm telephone. The device does not require USB power or a connection to the PC to maintain the functionality of the telephone in its normal manner.

The device meets the appropriate FCC and UL requirements required for this type of communications device.

Device Firmware

The device is 'soft up-loadable', its firmware is uploaded from the PC driver and Desktop Software application at runtime. This allows for easy upgrade and enhancement of the product in the field as required.

Device Contents & Packaging

The NEC Dterm VSR is packaged with everything needed for installation including:

- ❑ Dterm Voice Security Recorder hardware device
- ❑ Software CD
- ❑ USB cable
- ❑ Telephone connection lead
- ❑ Quick-start installation manual

Basic Installation

It is critical that the following instructions are followed when installing the Dterm VSR. The diagram below describes the procedure according to the Windows Operating system of the PC. The diagram below is included with the Xtension recorder shipment:

Installing Dterm Voice Security Recorder

For Windows 98 or ME

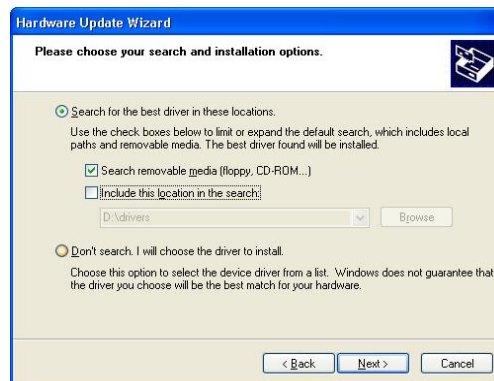
Run the Setup.exe program file from the NEC installation CD **BEFORE** connecting the telephone interface unit to your PC. Next connect the USB interface of the NEC VSR unit to your PC using the USB cable provided. Connect your telephone to either port on the Dterm VSR Recorder unit, and the other port to the telephone system. You are now ready to record.

For Windows 2000 or XP

Using the USB cable provided, connect the USB interface on the Dterm VSR unit to your PC. Windows will automatically detect the new hardware, and will start the new hardware Wizard. This will display a dialog box similar to the one shown below:



Select the second option, "Install from a list or specific location".
Then press Next>



- Insert the NEC installation CD in your CD drive and press Next>
- If you downloaded the files from the Internet, uncheck the "Search removable media box", select the "Include this location..." box and type the location where you stored the downloaded files (e.g. C:\My Documents). Then press Next>



The software has been fully tested, but has not yet been submitted to Microsoft for approval. Press "Continue Anyway"



Congratulations, you have successfully installed the necessary device drivers for your NEC telephone interface. Press Finish to close the dialog.

Now run Setup.exe on your NEC Installation CD to install the necessary application software on your PC.

Connect your telephone via the ports on the Dterm VSR Recorder unit, and you are ready to record.

Dterm Voice Security Recorder Application Software

This section describes the detailed requirements for the Xtension Recorder Applications software.

Dterm VSR Software

The NEC Dterm VSR software is delivered on a Compact Disk using a self-starting Install shield.

The CD contains all the appropriate files and installation procedures to operate to this specification, including USB device drivers, software application and help files.

A quick-start instruction sheet accompanies the Dterm VSR software as well as a pre-recorded user guide that steps the user through the various options of the Dterm VSR.

PC Compatibility

The Dterm VSR application supports Microsoft operating systems that support USB devices. The list of existing operating systems, which meet this requirement, are:

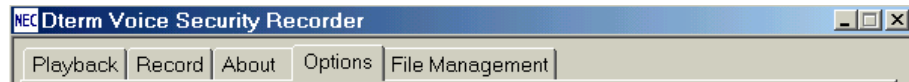
- WIN 98SE
- WIN Millennium Edition (ME)
- WIN 2000
- WIN XP (all variants)

Important Note – Xtension Recorder will not support WIN 95 and below, or WIN NT.

NEC Dterm Voice Security Recorder User Interface

Tab Options

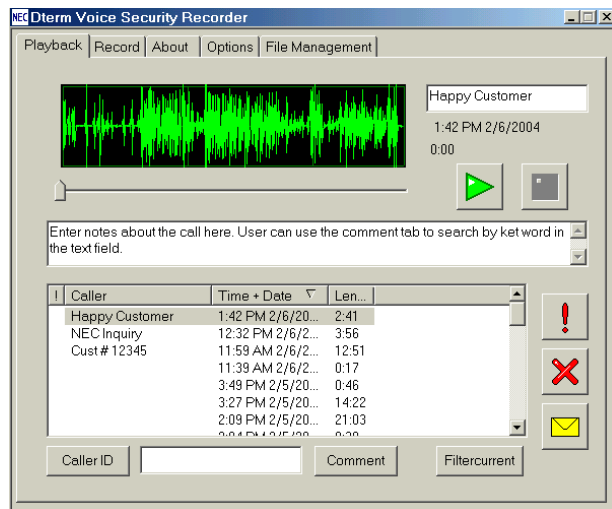
The Dterm VSR application software has 5 'tabs' that allow the user to select features and options.



The tabs are as follows:

- ❑ Playback – allows various playback features of recorded conversations
- ❑ Record – allows control of call recording
- ❑ About – provides software version information
- ❑ Options – set-up controls such as recording format
- ❑ File management – allows the user to manage the disk space used by Dterm VSR.

The Playback Tab



The playback tab allows the user to list and play recorded conversations.

The playback tab shows a graphical representation of the volume level of the call with a cursor that indicates the current position of playback. The cursor can be dragged forwards or backwards to allow rapid selection of the appropriate section to playback.

The user can edit the Caller ID or the comments field when viewing an existing recording.

* Caller ID and Number dialled are not available in the first release. Check with NEC for the release date.

The list box allows the user to list recordings by importance (exclamation mark), Caller ID, time & date or duration.

The Caller ID and Comments button allows the user to filter out all recordings with the required Caller ID or text in the comments field.

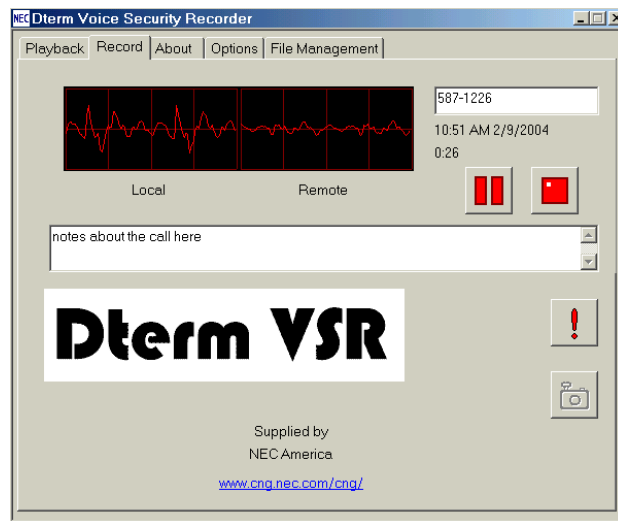
Playback, pause and stop buttons allow playback control.

The important '!' button allows a user to identify a call as important for future listing purposes or to ensure the recording is never overwritten (see file management).

The 'X' button allows recordings to be manually deleted. (Note: This option can be disabled at the user level.)

The e-mail button generates an e-mail with the recording inserted for e-mailing to a colleague.

Record Tab



The Record tab allows the user to view recording levels and to control the recording.

The 'Oscilloscope' shows the levels on the line separately. (Microphone being the users level and Speaker being the distant party level.)

The Caller ID field will be used in future versions, but information may be entered or over-written by the user.

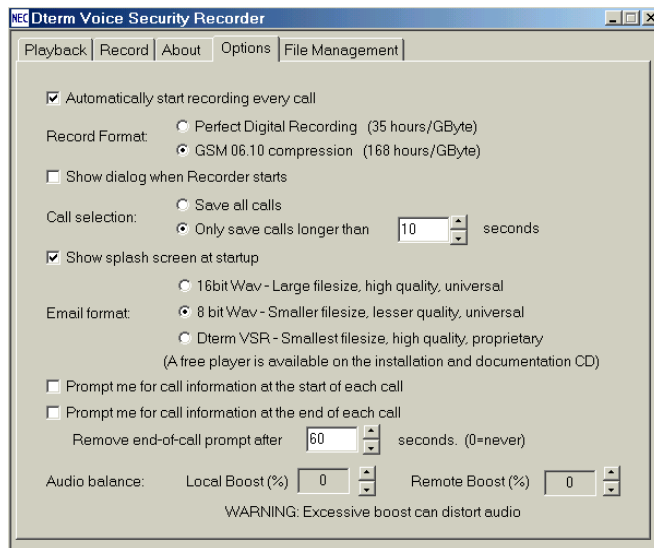
Manual start, stop & pause buttons control the recording status.

The date, time & duration of the call is listed.

The user may add any comments into the comment field and also mark a call as important (the '!' button). Marking a call as important allows the user to list important calls and, for the file maintenance functions of the Dterm VSR, to avoid deleting the conversation.

The button with the Camera picture allows a user to 'snapshot record' the current conversation to that point, while continuing to record the entire conversation. This feature is useful in emergency centers where an operator wishes to replay part of a conversation but continue to record.

Options Tab



The options tab allows the user to select the various set-up items of the Dterm VSR.

The following options are available:

Automatically start recording every call – starts the recording whenever a call is made, including internal extension calls.

Record Format - allows the user to select the recording format.

'Perfect Digital Recording' stores the recording in the PCM format taken directly from the digital line. This is the highest quality possible but it can use a significant amount of space on the PC disk (35 Hours per GByte).

'GSM 06.10' uses a compression technique to store the recording more efficiently (168 Hours per GByte). In practice, the difference in discernable quality is negligible so the default is for this format to be the used.

Show dialog when Recorder starts – brings the Record Tab to the front of the user screen whenever record is activated (default on).

Show Splash Screen at start up – shows the NEC Dterm Voice Security Recorder logo for 5 seconds whenever the application is started.

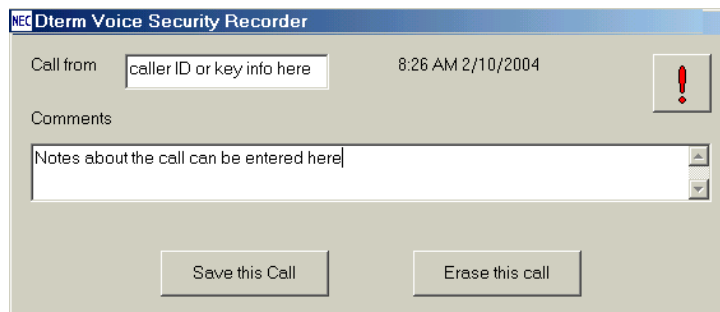
Email format - allows the user to select the type of file inserted in an e-mail when the user clicks on the e-mail button on the Playback tab. This option allows sending of the Dterm VSR format to other users who have the Dterm VSR application, or converts to a .wav format for replay by any PC.

Dterm VSR automatically adds the information included in the Caller ID, time, date and comments field to any e-mail.

Audio Balance – allows the user to adjust the recording levels for each side of the conversation. This feature cannot work on playback, only set in advance for record. It is recommended that the user makes a few test calls to determine the best level.

Prompt for Information at the Start of a Call – Simply pops forward the Record screen whenever a call is made, prompting the user or agent to enter information.

Prompt for Information At End of Call – Pops a small screen as shown below on the user's desktop:



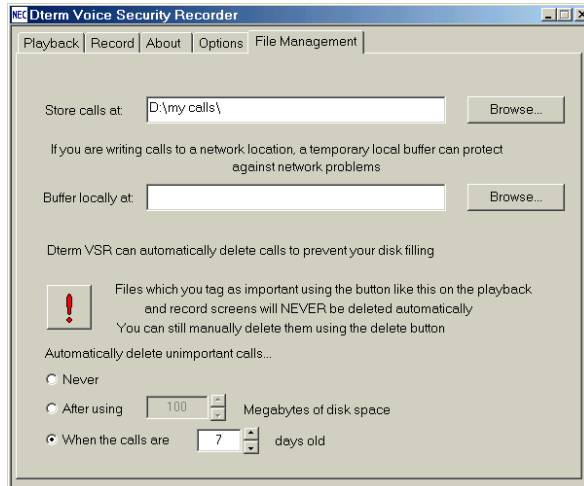
The screenshot shows a window titled "Dterm Voice Security Recorder". It contains a "Call from" field with the placeholder text "caller ID or key info here", a timestamp "8:26 AM 2/10/2004", and a red exclamation mark icon. Below this is a "Comments" section with a text area containing the placeholder text "Notes about the call can be entered here". At the bottom of the window are two buttons: "Save this Call" and "Erase this call".

This gives the user the ability to manage the calls at the point of completion. Immediately delete (can be disabled), add notes or mark the call as Important.

File Management Tab

File management is important when users are making large numbers of telephone calls and storing every conversation.

Store Calls at – allows the user to select the location where conversations will be recorded. It is possible to select a remote server location for centralized storage.



The Dterm VSR allows the user to automatically delete non-important calls when the allocated disk space becomes used, or when conversations are over a certain number of days old.

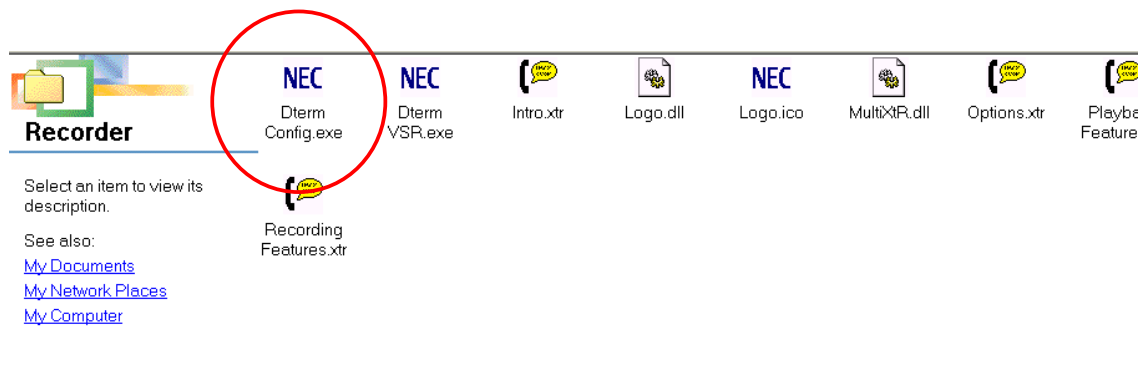
Conversations are permanently stored by pressing the '!' (important) button during recording or playback.

Custom Program Settings

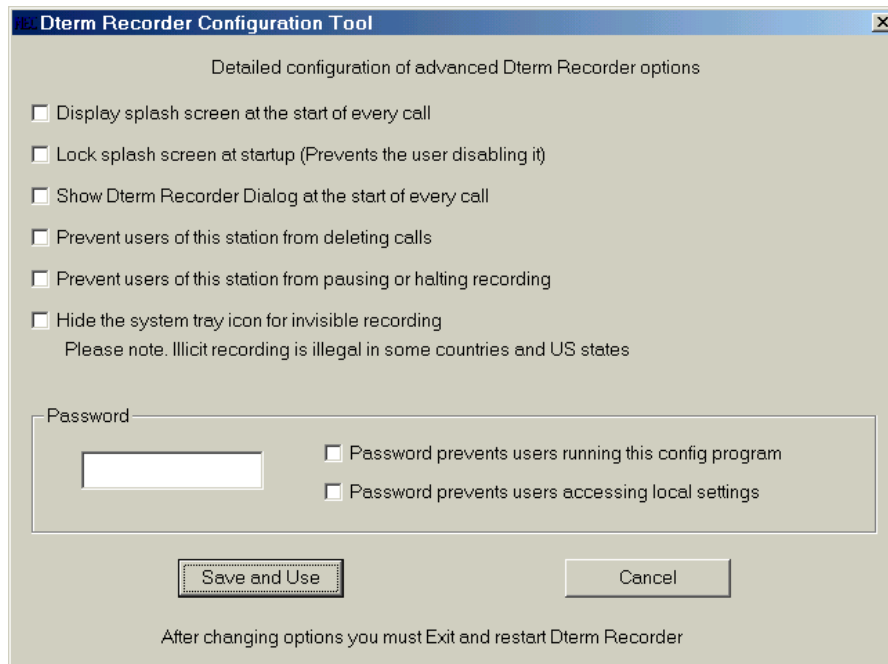
Comvurgent has also provided the option of making additional adjustments to the use and functionality of the user interface.

This special configuration program can only be accessed by browsing to the installation location (default C:\Program Files\Comvurgent\XtRecorder) and then clicking on the file circled below:

Note: The customer takes all responsibility to ensure they are meeting legal requirements. Comvurgent provides the user option settings in order to meet customer demands and cannot be responsible for the miss-application of the product.



There are several settings that can be customized to meet the requirements of the application:



Display Splash screen at the start of every call – this selection will remind the user the recording is taking place by splashing a screen with EVERY call “NEC Dterm Voice Security Recorder”.

Show Dterm VSR Dialog at the start of every call – this option brings forward the application record screen every time a call is being recorded.

Prevent Users from Deleting Calls – disables the Delete Key.

Prevent users from pausing or halting recording – disables Pause and Stop Recording Keys.

Hide the system tray icon – by default, a small icon appears in the system tray and flashes red when recording - this eliminates that indication.

Password – locks access to both these settings and/or those at the user level.

Note: When making changes to this program area, it is necessary to close the application and restart it for the changes to take effect.

Some Application Ideas:

In most cases, the customer will already know the key reason why they need to record their call. Because the NEC Dterm VSR is so cost effective, we've added a few application ideas that are applicable to most businesses:

- ❑ **Message Taking** – Many businesses don't like putting callers through to Voice Mail. The Dterm VSR is the perfect mini unified messaging solution. Simply ask the caller what message detail they would like to leave and instead of writing it down, record the call and e-mail it to the recipient.
- ❑ **Supervisor Monitoring** – Use the Silent Monitor feature in conjunction with the Dterm VSR Recorder to listen in and record agent activity.
- ❑ **Shared Use In A Call Center** – Many companies want to occasionally record an Agent's calls, especially new employees or for new campaigns. The Dterm VSR's plug n' play compatibility is ideal to move around different extensions when required.
- ❑ **Attendant Monitoring** – Place an Dterm VSR on the customer's main answering position to see how callers are being answered and transferred.
- ❑ **Conference Calls** – The Dterm VSR is the perfect way to record conference calls, especially where a speakerphone is used.
- ❑ **Dictation** – The Dterm VSR is a great way to use the telephone handset to dictate letters or notes for retrieval later or for an assistant to type. Simply allocate a spare trunk port (not connected) to allow distant end silence.
- ❑ **Order Placement & Credit Control** – Use the Dterm VSR in a procurement department or credit control to ensure verbal transactions or commitments and promises are recorded.

Vertical Market Applications:

The need for call recording can be found in virtually any business. Any business that deals with customers over the phone or takes orders over the phone could benefit from the Dterm VSR and the increased customer service and quality control it provides. However, below are a few key vertical markets to keep in mind when launching this product to your customer base:

Brokers – Legally required to record all transactions, many small brokers cannot afford high-end Call Logger solutions and now rely upon tape recorders etc. The Dterm VSR offers a solution to a known problem. The problem is that they don't know about our solution! Propose on new sales and go back to your existing base for add-on opportunities.

Legal – The ability to track and monitor all correspondence related to proceedings is critical to the legal profession. The Dterm VSR provides a cost-effective solution that works whether utilizing the handset of a phone or in a conference room on a speakerphone. Conversations can be immediately e-mailed to associates for review as well.

Leasing Agencies – The accuracy of communication can be critical when it comes to lease terms and the many options available today. Recording calls with the Dterm VSR ensures accuracy of transactions and can be used to clear up miss-understandings after the fact.

Insurance Agencies – Timing and accuracy is critical in the insurance field. Additionally, many insurance agencies are now diversifying and providing financial services as well. This need for accuracy and the diversification into the financial field may place a requirement of call recording to meet regulations. The traditional problem has been the expense associated with these implementations, the Dterm VSR fits the small and large agencies needs.

Schools – Aecurity is a growing concern in all areas of industry, but no more so than in our schools. By placing a Dterm VSR in a few key answering points within the school, calls of a security nature can immediately be forwarded to alert security via e-mail, even before the conversation is complete (using our snapshot feature). If caller ID is delivered, we can also capture that information (check version for support) and deliver the recorded conversation with important notes about the call or the circumstances.

Public Safety – 911 Centers are all equipped with very sophisticated Call Logging equipment, however, often local police and fire department offices are poorly equipped to record incoming calls. The Dterm VSR solves this and has added the important ability to listen back to a live call, while still recording (snapshot) - often critical to verify name/address of caller.

Installation Limitations

While the Dterm VSR is a groundbreaking product, it cannot be used in every single application. Here are a few rules to help you decide if the Dterm VSR is suitable:

- ❑ **Compatible Versions Of Windows:** Dterm VSR is compatible with Microsoft 98SE, Millennium (ME), 2000, 2003 and XP.
- ❑ **Non-Compatible Operating Systems:** The Dterm VSR cannot be used on Microsoft 95 or NT desktops (these operating systems do not support USB). Dterm VSR cannot be installed on Apple Macintosh.
- ❑ **PC Requirements:** Dterm VSR currently requires each extension user to have a PC. Soon we will be releasing the ability to pool access to devices for 'back-office' recording applications. Check with your NEC representative for details.
- ❑ **PC Specification:** An IBM compatible machine with a Pentium 400MHz or above and 64Mb of RAM (Win 98 & ME) 128Mb RAM (Win2000/XP) is required and suitable hard disk space to store recordings. It is not necessary for the PC to be networked. The PC must have at least one spare and working USB connector.
- ❑ **Telephone System Compatibility:** Aspire S or Aspire System



0893430

NEC

NEC Unified Solutions, Inc.
6555 N. State Highway 161
Irving, TX 75039-2402
necunifiedsolutions.com

October 14, 2004
Printed in U.S.A.