WIN Series

TROUBLESHOOTING GUIDE

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1. Introduction

This section will aid in the troubleshooting of the WIN or UNIVOICE 100 series system should problems occur. It should be referred to prior to calling DSSI for assistance. In many cases, you may be able to resolve the problem by following the guidelines specified here. This section also describes the procedures to be followed when calling DSSI for technical support or to return or repair defective or damaged hardware.

2. General Troubleshooting Guidelines

Warning! Do not install any additional software without DSSI's approval!

Troubleshooting of the system, as with most pieces of electronic equipment, involves testing the system and trying to duplicate the problem consistently. Once the exact scenario in which the malfunction occurs has been determined, it is simply a process of elimination in order to identify what is causing the problem and correct it. It is important to remember the following things when performing tests on the system.

1. The hardware contained in the unit is the same as any other PC with one addition, the VLC's (Voice Line Cards).

2. When connected to a PBX/Hybrid telephone system, the ports function just like any other single line telephone in the system. There are two exceptions to this rule. If the WIN is integrated with a Mitel, SL1, NEC, or Norstar PBX, then the ports emulate a digital phone.

In order to properly troubleshoot the system you should have the following equipment on site:

1. Telephone test set (Butt set).
2. Single line telephone (Digital phone if Mitel, SL1, NEC, or Norstar).
3. Digit grabber (optional, but very useful).
4. Digital Multimeter.
5. Breakout box (needed for WIN with serial integration).
6. WIN Installation manual.

Once a problem has been discovered or reported, use the following steps as a guideline to try and identify the cause and correct the problem:

1. Obtain as much detailed information about the problem as possible.
2. Attempt to duplicate the problem through testing.
3. Define what type of malfunction is occurring and what the symptoms are.
4. Follow the recommended corrective actions to try and fix the problem.
5. Contact DSSI for assistance if there are no symptoms that match yours in the "Symptoms and Corrective Actions" section of this manual or if the corrective actions do not work.

To make it easier to identify and correct possible problems that might occur, we have taken some of the malfunctions or mistakes and separated them into the four categories listed below. In chapter 5, Malfunctions: Symptoms and Corrective Actions, we have listed some malfunctions that might occur, their symptoms and some corrective actions that should be taken.

1. Hardware/PC malfunctions: These are problems that usually affect the overall performance of the WIN system or one or more voice ports.

2. Voicemail feature malfunctions: These are problems that may affect one or more mailboxes and are related to the recording and/or handling of messages, new message notification, etc.

3. Auto Attendant feature malfunctions: These are problems that may affect one or more extensions and are related to call routing, transferring callers, busy/no answer call progress, etc.

4. PBX integration malfunctions: These are problems that affect the operation of the WIN system when it is integrated with a PBX. This includes Serial integration, Digital In-band and In-band DTMF integration.

In some cases the problem may appear to overlap into more than one category. Try to choose one that best fits the particular problem.

3. Testing the Voice Line Card Ports

As discussed in the previous chapter, each port on the VLC's acts just like a single line telephone when performing various functions such as transferring calls, lighting message waiting lights, etc.. **NOTE: When the WIN is connected to SL1, Norstar, NEC and Mitel PBX's with digital set integration each port functions like a digital set.** With this in mind, it is a very simple procedure to test the ports by connecting a telephone test set (butt set) or a standard single line phone directly to the extension that would be connected to the WIN ports and attempt to perform the functions manually. For instance, if there is a problem transferring calls, try to transfer a call manually. If you still have a problem, then it is with the PBX. Using this method, you can virtually eliminate the Voicemail system as the cause of the problem and concentrate on the PBX side. This is also very useful when setting up the system with a new PBX that DSSI has not already configured a telephone system type for.

By using a telephone test set in the "Monitor" mode, you can also test the overall performance of the system and determine if the ports are functioning properly. Connect the test set to the port you wish to test and leave the set in the monitor only mode. Now you can call the port and perform various tests while listening to the test set. For example, when the port is called the test set should ring simultaneously. You should hear the WIN answer and play the appropriate greeting.

If you dial a valid extension number, you should be able to hear the hook flash, dial tone, the DTMF digits being dialed, and then the call progress of the PBX (busy, ring, etc.). This

method can also be used to determine if the outdialing feature is timed properly, if In-band DTMF digits are being sent, etc...

4. Using the Line Trace

The Line Trace feature is also a good tool to use whenever testing the WIN system. The line trace feature will continuously display on the screen what operation is occurring on which line and the result of that operation. Some of the operations that would be shown are listed below:

RINGS RECEIVED LINE 1 (Ring detected on line 1)

OFF HOOK COMPLETE LINE 1 (Port 1 went off hook)

Received on mailbox 990 (Play mailbox 990 greeting)

Playing GRTN484 (Greeting 484 is playing)

Playing MSSG101 (Message 101 is playing)

Received simple in-band sequence #100 (Received In-band DTMF digits #100)

Outdialing transfer sequence T&,100 (Port is transferring call to ext.100)

CALL ANALYSIS CONNECT (Call progress detected a connect while performing a monitored transfer)

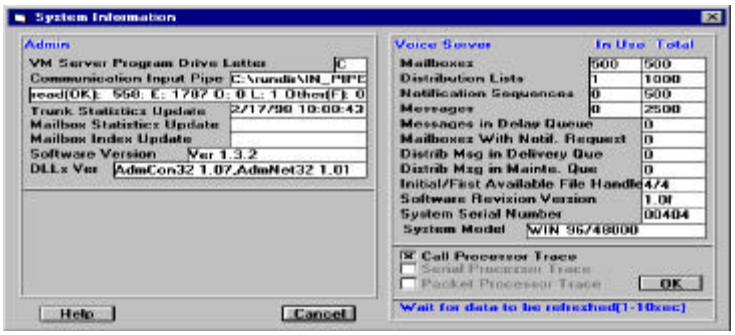
DIALING COMPLETED
ON HOOK COMPLETE (The system completed transfer)

Outdialing message waiting sequence 100,&,74 (The system outdialed message waiting sequence to ext. 100)

The trace feature used in conjunction with monitoring makes it easy to determine what exactly is happening or what the system thinks is happening on an individual port. When troubleshooting a problem use the trace during testing and make a note of what appears on the screen when the problem occurs. This information will be invaluable when you call DSSI for support. In most cases, we will be able to determine what the problem is and what needs to be corrected or adjusted to fix it by knowing what the trace displayed.

To use the line trace, click on the icon labeled System Configuration and then on the bar labeled Line Configuration. This will bring up the Telephone Line Setup window. Now, simply click on the box beside the word Trace and click OK to exit. At this point, the system will ask if you want to save the changes you have made. Click yes, and the line trace is on. In order to view the trace, it is necessary to click on the DSSI Voice Mail Server icon on your task bar. **NOTE: The line trace feature will tend to slow down the overall operation of the system when it is on. This may cause gaps and pauses**

during playback of messages and greetings. DO NOT leave the trace on any longer than necessary. To turn off the trace, repeat the same steps.



The Call Processor Trace found within the System Information window, when enabled, will display general system operations such as whenever a message is recorded or deleted, when the databases are updated, what audiotext is assigned to answer during the current time period for each line (updates every minute), when memory is allocated for certain functions, etc..

If your system is configured for Serial Integration there will be two more trace operations available within this window: Serial trace and Packet trace. The Serial trace, when enabled will display the serial bytes that are received or sent on the COM port(s). The Packet trace will display the information that was picked out of the serial packet such as "Called party", "Call Type", "Connect Number", etc... To toggle on these traces click the box to the left of the trace you wish to toggle.

All traces will automatically turn off when the system goes through it's nightly maintenance routine around 2:00 AM.

5. Malfunctions: Symptoms and Corrective Actions

The following chapter is designed to provide some recommended corrective actions that should be taken when specific malfunctions occur. The malfunctions are separated into four major categories:

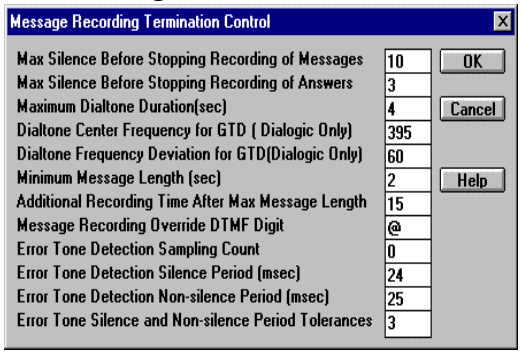
Hardware/PC malfunctions
Voice Mail Feature malfunctions
Automated Attendant Feature malfunctions
PBX Integration malfunctions

Choose the category and symptom that matches your particular problem and then perform the recommended "corrective actions" in the order they are listed. If the problem persists and/or you need technical assistance, refer to chapter 6, DSSI Technical Support/RMA procedures.

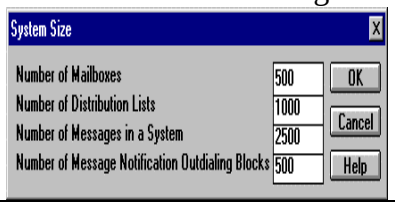
5.1 Hardware/PC Malfunctions

SYMPTOMS	CORRECTIVE ACTIONS
System will not boot up. "HDD controller failure" error is displayed.	▪ Check ribbon cables for punctures or flipped connections. ▪ Replace Motherboard ▪ Replace Hard Disk Drive
System will not boot up. "Hard Disk Failure" error is displayed.	▪ Check CMOS setting for HD type. ▪ Check controller cables. ▪ Replace Hard Drive.
Message "Unable to start Voice Mail System. Error code 5." is displayed.	▪ Clean out motherboard slots and re-seat VLC's. ▪ Check jumper settings on VLC's.
Message "Lock Device not found or incorrect..." is displayed.	▪ Confirm that **proper** lock device is installed on the **LPT1** printer port. Lock device **MUST** match your system's serial number. ▪ Test printer port. Replace Motherboard if bad. ▪ Replace lock device. Contact DSSI for assistance.
One or more Voice Mail ports are not answering	▪ Switch phone line on malfunctioning port with a port that is working. If problem follows phone line, repair or replace phone line. ▪ If the problem stays on the same port, Check the "Line Configuration" in the On-Line Configuration Editor for the proper settings for this port. ▪ Replace or repair VLC. Contact DSSI for assistance

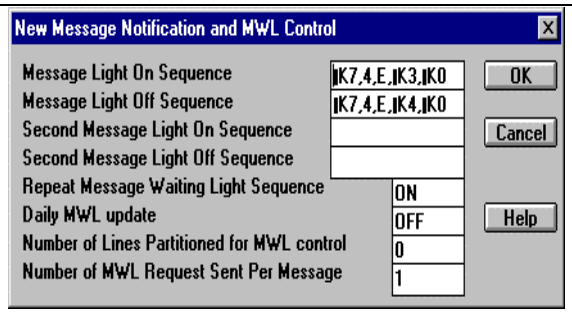
5.2 Voice Mail Feature Malfunctions

SYMPTOMS	CORRECTIVE ACTIONS
When terminating a recording with a terminating digit, the prompt “Your message was too short.” is played.	▪ The recording was shorter than the “Minimum Message Length” parameter in “Message Recording Termination Control” in the On-Line Configuration Editor.  ▪ Decrease this parameter or record longer message.

Messages are getting cut off in the mid recording or the caller hears a prompt o are interrupted by dial tone while recor	▪ Turn on "Mailbox Transaction Recording Report" and check the terminating event code or turn on line trace and try to duplicate the problem while watching the trace. If problem occurs, note the terminating event. **Note: In order to turn on the reports, it is necessary to do so from the DSSI Voice Mail Server Interface** ▪ Event 5 indicates the recording exceeded maximum message length time defined in the mailbox voice messaging data. Increase length. ▪ Event 2 indicates the system detected the terminating digit in your voice (Talk-off). Increase the "Touch Tone Verification Delay During Recording." parameter in "System Hardware Configuration" in the Off-Line Configuration Editor. ▪ Event 12 indicates the recording stopped due to Loop current drop detection. Increase the loop current drop detect time in "Telephone System Integration" in the Off-Line Configuration Editor. ▪ Event 31 indicates MAX NON-SILENCE received. Check the "Max Dialtone Duration" parameter in "Message Recording Termination Control" in the On-Line Configuration Editor. This parameter is used to detect dial tone on hangups. For Dialogic VLC's, increase this parameter to 8 seconds or more or set it to 0 to disable it.  "Online Configuration Editor" ▪ Event 50 indicates that an ERROR TONE was detected. Check the error tone detection setting in "Message recording termination Control". It may be necessary to increase the sample count or set the tolerance value lower to keep from detecting speech as an error tone.
When trying to leave a message, the prompt "The Voice Messaging System is not available." is played.	▪ Check available message time at the top of the screen. If no time is available there is no room on the hard drive for message. Delete older messages or remove unnecessary files from hard drive. ▪ The maximum number of messages allowed has been reached. Check the number of

	messages in use in the System Information screen. The maximum number of messages can be increased in "System Size" in the Off-Line Configuration Editor. 
Messages appear to arrive late when the user receives them.	▪ This is typically some sort of user error or inconsistency in turning on Message Waiting indications. Turn on the Message Recording and User Access reports for the mailbox in question so that you can track when messages are left and when the user accesses their mailbox. Note any discrepancies in the user's complaint and the actual report. ▪ Make sure all unused mailboxes are out of service to ensure the user is not accidentally getting into the wrong mailbox. Make sure all users are using a unique password. Turn on the "Play user's name before message delivered." option in the mailbox class of service. This will automatically play the user's name when they access their mailbox ensuring they are in the proper mailbox. ▪ Test the MW indication. If necessary, setup the MW indication as an outdial sequence and set it to repeat periodically until the messages are retrieved.
The system will not allow you to record a message for certain mailboxes.	▪ Check the mailbox configuration type, the global parameters. You cannot record messages for mailboxes configured as extension only or audiotext boxes. ▪ Check if the maximum number of messages for this mailbox has been reached. Increase if necessary.
Messages are appearing in the wrong mailboxes.	▪ Check for improper programming of the message escalation feature in the original destination mailbox. ▪ Check for message forwarding in the original destination mailbox. The Message Forwarding option in the Class of Service programming must be on to check to see if messages are forwarded. Disabling this option will cancel current message forwarding.

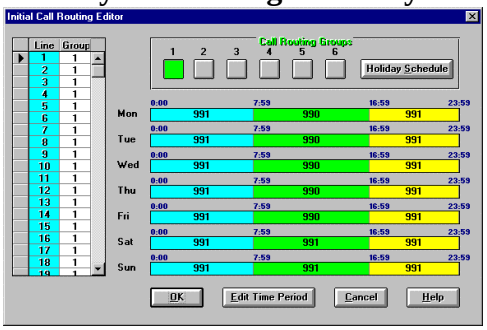
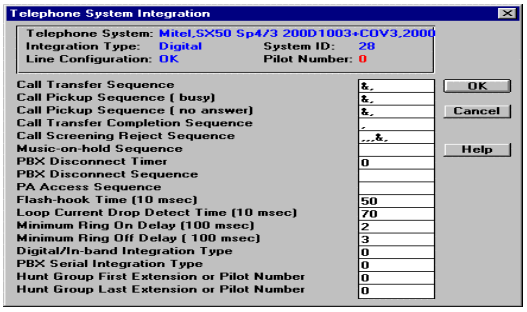
Message escalation not working.	▪ Check for proper message escalation programming in the mailbox Voice Messaging Data screen. ▪ Check the Message escalation flags in "Mailbox Initialization Parameters" in the On-Line Configuration Editor to ensure that the type of message you want to escalate has been enabled.
Message notification to a pager is not working.	▪ Check Telephone Line Control to make sure the proper line is configured as an outdial port. Make sure the extension connected to this port has outside line access enabled in its class of service. ▪ Check the new message notification sequence programming. Is the desired sequence enabled? ▪ Is the telephone number to be dialed entered properly, including the trunk access code and all necessary pauses? (Make sure to enter at least one pause after the trunk access code.) Make sure to use "M" after the pager telephone number to enable the call monitoring so the system can detect when the paging company answers. (Note: The number of rings used to determine a no answer condition is controlled by the mailboxes "Number of rings for no answer" parameter in the Call Transfer Data menu.) ▪ Check to ensure that the Start and Ending times are correct and the Days of the week are enabled as desired. **Keep these parameters in mind when performing test calls.** ▪ If all of the above are correct, turn on the line trace on the outdial port and monitor that port with your test set while it is attempting to outdial. Make a note of what you see on the trace and what you hear. ▪ NOTE: If the WIN goes off hook to outdial and it does not hear dial tone, the WIN will assume it "crashed" with an incoming call and start playing the Main Greeting. When the call is completed the port will attempt the outdial again.
Message Waiting lights not working	▪ Check the line control parameters to ensure the proper port is configured with outdial enabled.



- Check the MW On and Off sequences in "New Message Notification and MWL Control" in the On-Line Configuration Editor. Make sure there is a comma (pause) after any hook flashes entered in the sequences.
- Attempt to light a MW light using a test set or single line phone connected to the outdial port. If you cannot light the light, check your PBX programming for that port. If you can light the light manually put the sequence you used in the MW On parameter in "New Message Notification and MWL Control" in the On-Line Configuration Menu.
- If using Serial Integration check to make sure the integration type is turned on and that message waiting on and off packets have been programmed. To do this, use your DOS prompt, and go to C:\rundir. Type Editser from the rundir prompt. Select option 2 to edit output packets. Select option 10 and make sure it is set to 1 to allow serial integration for message waiting on and off. Return to the main menu and select the option to edit message waiting on packets. Verify that the packet information is correct, if not replace the information with the correct data.

5.3 Automated Attendant Feature Malfunctions

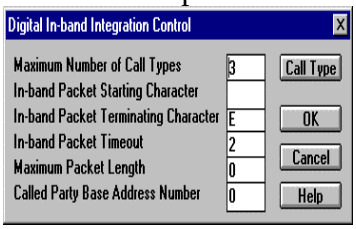
SYMPTOMS	**CORRECTIVE ACTIONS**
WIN answers incoming call but no greeting is played.	▪ Check "Initial Call Routing" programming to determine if the proper Audiotext mailbox is assigned to answer during this time period. ▪ Check "Special Dates" configuration in "initial Call Routing" to ensure an incorrect Special Date has not been entered with an Audiotext box that has no greeting recorded. **Note: Special Dates will carry over into the next year and may not be assigned properly for**

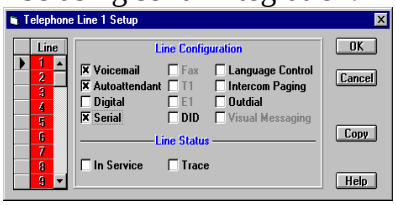
	the holiday date during the new year.  ▪ Check the greeting of the Audiotext assigned to answer in "Initial Call Routing". The primary mode must be enabled for Audiotext boxes that will be used as Main Greeting boxes.
When an extension number is entered, the caller is sent directly to mailbox instead of being transferred to the telephone.	▪ Mailbox is configured as Voice Mail only box in the Global parameters. ▪ Port is configured as Voice Mail only port in the Telephone Line Control parameters. ▪ A path is entered in the Main Audiotext mailbox that routes the caller directly to the mailbox, i.e. 100->M100. A destination of M100 sends the caller directly to the mailbox instead of to the phone. ▪ The "Call Blocking" feature is turned on for that mailbox.
The caller is immediately disconnected after entering the extension number and hearing "One moment please while I transfer your call."	▪ Flash-hook delay time is too long in "Telephone System Integration" in the Off-Line Configuration Editor. Adjust the time to match the PBX flash time.  ▪ Call Transfer sequence in "Telephone System Integration" in the Off-Line Configuration Editor is incorrect. Attempt to transfer a call manually and duplicate the sequence in the Call Transfer sequence in "Telephone System Integration". ▪ The extension connected to the WIN port is not allowed to transfer calls by the PBX programming. Check PBX programming.

The caller hears DTMF digits dialed back to them after hearing "One moment please while I transfer your call." and then they are disconnected.	▪ The flash hook delay time is too short in "Telephone System Integration" in the Off-Line Configuration Editor. Adjust the flash time to match the PBX flash time.
The caller is put on hold and then hears the Main Greeting again (Non-integrated system.)	▪ The WIN performed a blind transfer to the extension instead of a supervised transfer. Make sure Call Transfer Supervision is ON in the mailbox Extension Transfer data menu. Also check Call Supervision in Automated Attendant parameters in the On-Line Configuration Editor. This parameter should be set to 0.Call progress detected a CONNECT instead of a busy or no answer condition, thus performing a blind transfer and the call recalled back to the port after the PBX recall timer expired. Run ACCUCALLLINETEST (Dialogic). ▪ The extension number entered does not exist on the PBX but is a valid mailbox on the WIN. Take all unused mailboxes out of service. ▪ PBX extension is call forwarded back to voice mail but there is no integration or integration failed.
User's experience a connection delay upon picking up a call being transferred to their station.	▪ When the WIN is performing a supervised transfer, there will always be somewhat of a delay to complete the connection due to the nature of the Call Progress detection program and the transfer operation in general. DSSI recommends using Blind Transfers whenever possible on integrated systems that require supervised transfers, the delay should be greatly diminished by following the guidelines below. ▪ Turn off the Message Source Announcement mode in Mailbox COS, in the "Voice Messaging" parameters within the user mailbox. ▪ Check Call Transfer Completion sequence in "Telephone System Integration" in the Off-Line Configuration Editor. This parameter should be blank in most cases. ▪ Call progress is not set properly. Run ACCUCALL LINETEST (dialogic) and define the Call Progress parameters. **NOTE: The two parameters "Max Noise Suppression" and "Max Silence Suppression" should always be**

	set to 4. Failure to do this may cause a delay in connect detection.
On busy or no answer conditions, when the busy/no answer options are set to "Leave Message" the caller still hears the canned prompts "The person you are trying to reach is unavailable or on the phone" before the personal greeting.	▪ Turn off Call Queuing announcement in the mailbox Extension Transfer Data.
When the user picks up a call they are conferenced with the caller and the Voice Mail.	▪ The caller picked up the call just as the WIN was pulling the call back on a no answer condition. Increase the number of rings before no answer in the mailbox configuration to allow the user more time to pick up calls. ▪ Disallow conferencing on the voice mail ports through PBX programming.
When using call screening and rejecting a call, the user is conferenced with the outside caller and the WIN.	▪ The user MUST hangup immediately after rejecting the call or the operation of getting the caller back from hold may create a conference. ▪ Add some comma's (pauses) to the beginning of the Call Reject sequence (before the hook flash) in "Telephone System Integration" in the Off-Line Configuration Editor to allow more time for the user to hangup.
Upon detecting busy/no answer conditions the WIN is not pulling the caller back from hold.	▪ The busy/no answer option(s) are set to "Blind Transfer". DO NOT set either option to blind transfer unless you want to perform a blind transfer AFTER that condition has been detected (such as to camp on to a busy station or blind transfer after one ring is detected). To perform blind transfers all the time, turn off the Call Transfer Supervision in the mailbox Call Transfer menu. ▪ The Call Pickup sequence in "Telephone System Integration" in the Off-Line Configuration Editor, on busy or no answer is incorrect. Attempt to pull a call back from hold with a test set or single line phone connected to one of the WIN ports. Enter the sequence performed in the Call Pickup Sequence. ▪ The flash hook delay time is incorrect. Set the flash hook delay time to match the PBX flash time.

5.4 PBX Integration Malfunctions

SYMPTOMS	CORRECTIVE ACTIONS
Simple In-Band DTMF integration not working.	▪ Monitor the WIN port with a test set. Verify that the PBX is sending DTMF digits when the call is made to the WIN or a call is forwarded to the WIN. If no digits are being sent, check the PBX programming for Voice Mail integration. If digits are being sent continue with the following checks. ▪ WIN ports are not configured for In-Band integration. Check "Line Configuration" in the On-Line Configuration Editor. The "Digital Parameter" must be selected for each line that needs to be integrated. ▪ WIN is not recognizing the DTMF digits being sent. Check the Touch Tone Verification delay during playback in "System Hardware Configuration" in the Off-Line Configuration Menu. This value should be 4 for Dialogic VLC's. ▪ Check the "In-band Packet Timeout" in the "Digital In-Band Integration Control" menu in the On-Line Configuration Editor. This value should be at least 2. It may be necessary to increase this value to 3 if the PBX is sending the digits too slowly and is not finished sending before the timeout period.  ▪ Check the Offhook delay parameter in "System Hardware Configuration" in the Off-Line Configuration Editor. This parameter controls how soon the system can receive digits after going off hook. This parameter should be set to 5 (50 msec.) For all in-band integrations.
Digital In-Band or packetized in-band integration not working.	▪ For digital in-band integration, verify that the ports are connected to the proper digital ports on the PBX. Turn on the line trace and call the WIN port. You should see "Received in-band sequence...". ▪ Verify that the PBX extensions connected to the WIN ports are setup properly in the PBX

	programming. See the Integration Notes for your PBX for details. ▪ The WIN ports are not configured for In-band integration. Check "Line Configuration" in On-Line Configuration Editor.The "Digital" parameter must be selected for each line that needs to be integrated. If this flag is on and you do not see any in-band sequence received with the line trace on. Call DSSI for assistance. ▪ For packetized DTMF integration and the WIN is not recognizing the DTMF digits being sent. Check the Touch Tone Verification delay during playback in the "System Hardware Configuration" in the Off-Line Configuration Editor. This value should be 4 for Dialogic VLC's. ▪ Check the "In-band Packet Timeout" in the "Digital In-band Integration Control' menu in On-Line Configuration Editor. This value should be at least 2. It may be necessary to increase this value to 3 if the PBX is sending the digits to slowly and is not finished sending before the timeout period. ▪ Check the "Off-hook delay" parameter in "System Hardware Configuration" in the Off-Line Configuration Editor. This parameter controls how soon the system can receive digits after going off hook. This parameter should be set to 5 (50 msec.) for all in-band integrations
Serial Integration not working.	▪ Verify WIN ports are configured for serial integration. Check the "Line Configuration" in the On-Line Configuration Editor. The "Serial" parameter must be selected for each line that will be using serial integration.  ▪ Check EDITEXT from C:\Rundir at the DOS prompt to ensure that the WIN ports are assigned with the proper PBX extension numbers. Refer to the Integration notes for your PBX for details. ▪ NOTE: If the ports are not connected to the correct PBX extensions the integration will fail.

	▪ Check the Serial cable and connections. Refer to the Integration notes for details. ▪ Serial protocol (baud rate, parity, etc..) may be configured incorrectly to match your PBX. Contact DSSI for assistance.
Calls being "blind transferred" to busy stations do not forward into the WIN.	▪ Some PBX's do not allow a call that is being transferred from a Voice Mail Hunt Group to forward back to the same hunt group on a busy (or All Call) condition. In some cases you can setup two Hunt Groups. One group would be used to answer incoming calls, while the other would be used to call forward to the PBX extensions too. In this way, a caller could be forwarded from the first Voice Mail hunt group to the second on busy/no answer or all call situation. ▪ In some cases where it is not possible or feasible to have two groups, it may be necessary to monitor for the busy condition and pull the call back and do a blind transfer on a no answer condition. To do this set the Call Transfer Supervision ON in the mailbox Call Transfer Data. Set the busy option to either selection menu or leave message. Set the number of rings before no answer to 2. ▪ **Note: DO NOT set the number of rings before no answer to less than 2.**
Calls forwarding to the mailbox do not follow the alternate entries as defined in the mailbox Call Transfer Data configuration.	▪ Some PBX's do not distinguish between busy and no answer forwarded calls when the call integrates with the WIN. Refer to the Integration Notes for your PBX or call DSSI for more information. ▪ If the PBX does not provide this information the call will not follow the busy/no answer options. In order to send a call to another mailbox when it forwards in to the WIN, define the box as a Greeting Only box in the class of service. Turn on the "Transfer to another mailbox" option and define the "Immediate Transfer Mailbox" as the box you wish to send the caller to. Record a short greeting in the original mailbox and then the rest of your greeting in the Audiotext box.

6. Technical Support/RMA Procedures

A. Please have the following information ready prior to calling DSSI for assistance:
WIN system serial number
WIN model number
WIN software version
Modem number, if available

B. Systems that are still within the one year warranty period will not be charged a technical support fee. Systems that are out of warranty will be charged a technical support fee of $150.00 per hour (during business hours) with a one hour minimum charge per call, unless otherwise stated. On site technical assistance is billed at the same rate with a two hour minimum charge. All prices stated do not include parts or tax, if applicable. DSSI may request a P.O. number for these charges, depending on the status of the customer's account at that time.

C. Systems that are supported under a valid Maintenance Agreement may or may not be charged for technical support depending upon the conditions stated in the contract. Please refer to your contract for details.

D. An RMA (Return Material Authorization) number must be obtained from the DSSI technical support department prior to returning any hardware components that are suspected to be defective, regardless of the warranty status. Any components returned to DSSI without a valid RMA number will be refused by the shipping/receiving department.

E. To obtain an RMA number, call DSSI from the site where the system is installed. The technical support department will then verify the problem and issue an RMA number for the defective part.

F. "Advance Replacement" RMA numbers will be issued only for components that are within the one year warranty period or are covered by a valid Maintenance Agreement. "Repair and Return" RMA numbers will be issued for all other components.

G. DSSI reserves the right not to issue "Advance Replacements" if the component was damaged due to improper installation, negligence, power surges, vandalism, or storm damage.

H. To contact the DSSI Technical Support Department dial (972) 235-2999 ext. 2. On weekends, after hours or holidays, you will be prompted to leave a message in the 24 hour support mailbox, if it is an emergency. **NOTE: ALL service calls requesting technical support after hours, or on holidays will be billed at 1 and times the current normal service charge. The ONLY exceptions are systems that are covered under a valid 24 hour maintenance agreement.** Office hours are Monday thru Friday, 8:30AM to 5:30PM (Central Standard Time).