MediaGateway Line Driver Configuration

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Introduction

This document discusses the set up and configuration of line drivers in the MediaGateway application. The following information assumes the end user understands basic MediaGateway and Manitou functions and terminology.

Telephony Server Configuration

The Telephony Server has several configuration parameters available:

-T<TTS Threads>
-N<No DNIS Digits>
-P<Listen Port>
-L<Log Level Boost>
<-debug>

Two-Way Configuration

Questions to Consider

1. What receiver will you be working with? Typically, either Surgard or OH2000 receivers are used with Two-Way configuration. We will explore how to configure each type of receiver later on in this chapter.

2. What line will the two-way call be coming in on?

3. Are you using DNIS? If so, what is the default shelf number for the receiver?

Supervisor Workstation Configuration

Open the Manitou Supervisor Workstation and select Maintennace > Setup > Receiver Types. Here, you will set up the receiver type which will handle Two-Way sessions with the MediaGateway.

Surgard Receiver Configuration

1. Add a new Receiver Type called SURGARD SYSTEM 1, using the Surgard MLR Series for the Driver.

2. Enter Surgard System 1 into the Receiver Code field. Click OK. On the main form, select Surgard from the Driver and enter the following options into the Options field:

VER=MLR2000, DNIS=1, LINE=3, CALLERID=1,DEBUG=1.

The MLR2000 uses multiple shelves line cards. There are 12 line cards in one shelf. You can

identify the shelf number and the line number where the two-way signal will be sent by examining the signal format. For example, a typical SIA signal for the Surgard will appear as follows:

NLF0204

Where 02 = shelf number
and 04 = line number

Since there are 12 line cards for the shelf plus four more on the second line, this example would equal Line 16. It is important to know the default shelf number, as it is required if you are using the DNIS option. If the DNIS is not set, the Caller Id will be sent in as FSK.

3. Click Save, and open the Receivers form.

4. Add a Receiver to the System and select MLR2000 from the Receiver Type drop-down menu. Enter a brief description (e.g. MLR2000 -SurGard) into the Description field.

5. Select TCP/IP (Out) from the Port Type.

6. Enter the Host IP and the Port Number.

7. Ensure that the Disabled checkbox is not checked.

8. Select Surgard from the Default Line Prefix drop-down menu.

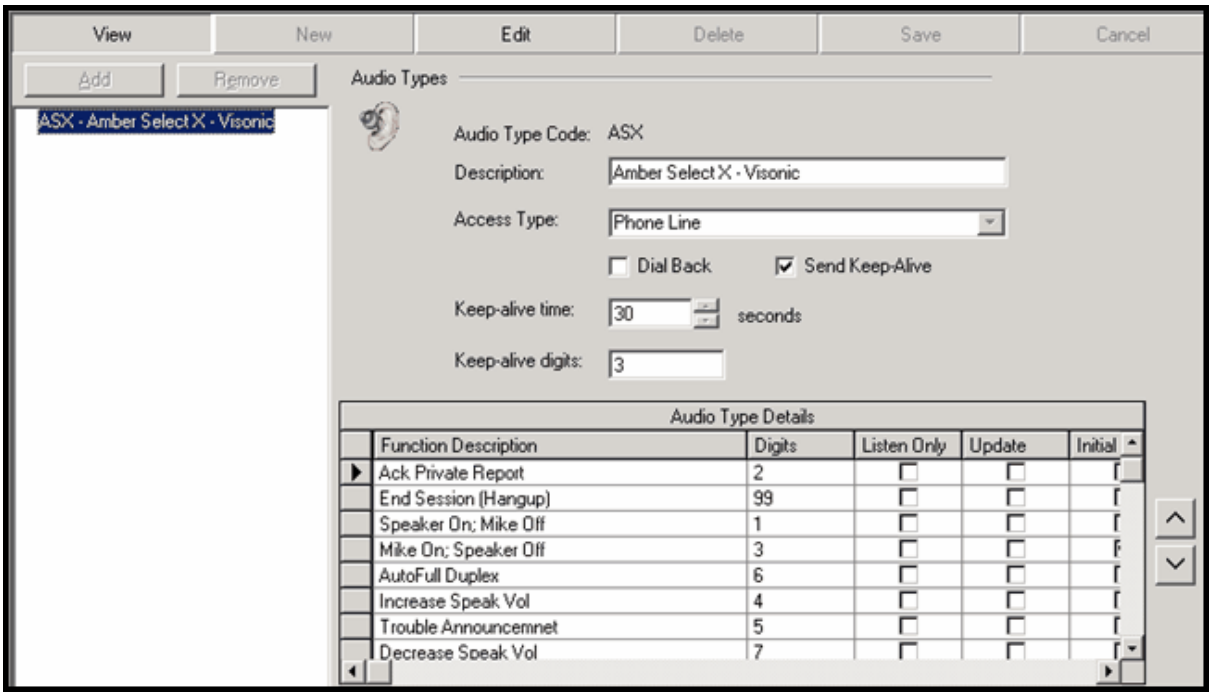
9. Select "Default Prefix" from the Receiver Line Prefix drop-down menu under the Default Designation for Unknown Signals section of the form.

10. Click Save.

Trouble saving the receiver? Make sure you have assigned a system account for the receiver. This should allow you to save the receiver configuration.

Audio Types Configuration

Save the Receiver Types form, close it, and open the Audio Types form. The following example uses Amber Select X - Visonic for the Audio Types. Add the Audio Type, select "Phone Line" from the Access Type, and check the "Send Keep-Alive" checkbox.



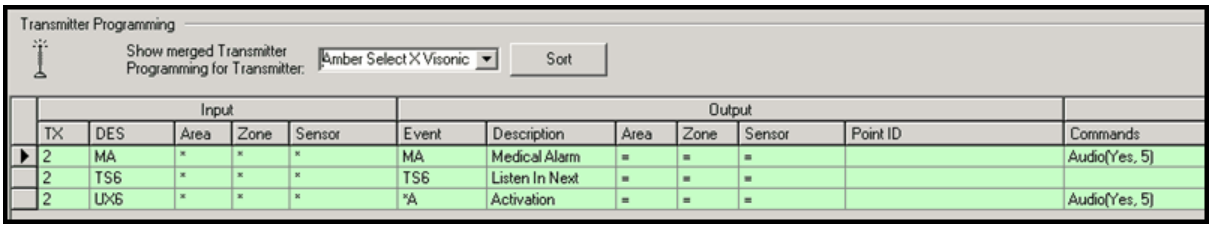
Some panels require a keep-alive tone, so enter the amount of time (in seconds) that a keep-alive tone should be sent, as well as the number of digits sent for the tone. Click Save.

Operator Workstation Configuration

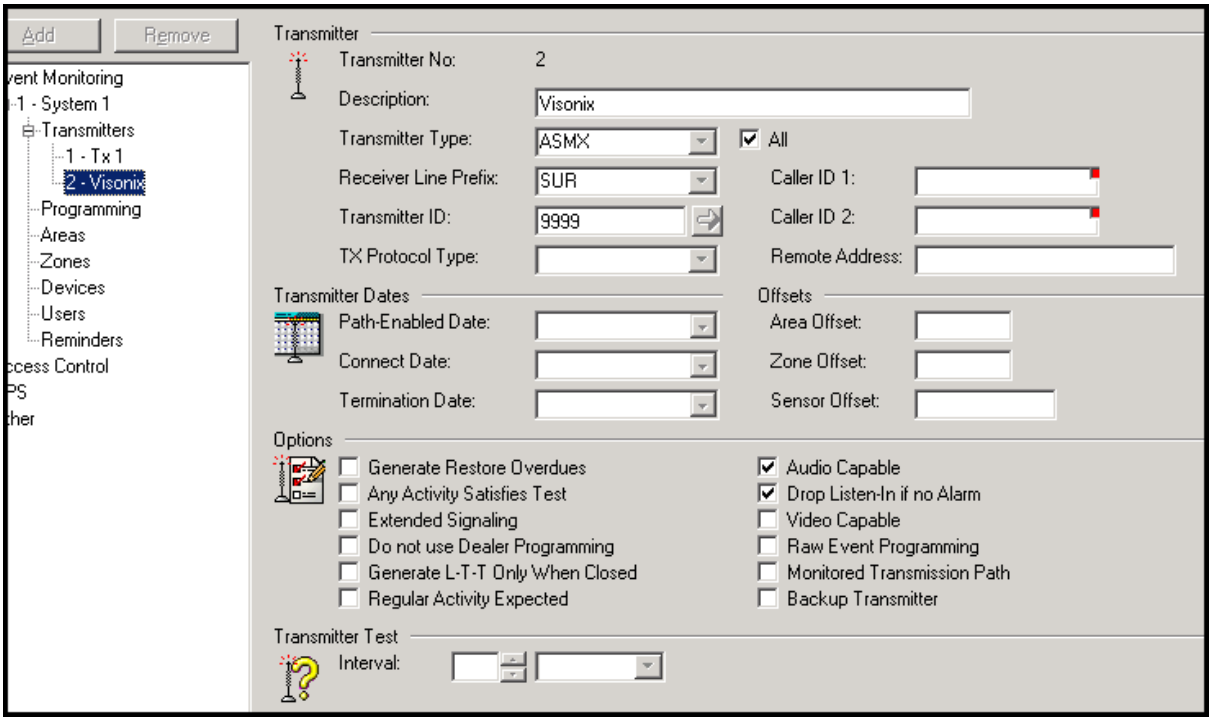
In the Operator Workstation, open the **Transmitter Types** form to begin configuration a Transmitter with Two-Way capability.

Add a Transmitter Type under Event Monitoring, with the description matching or similar to the Audio Type Code. In the Attributes section of the form, check the "Audio Capable" and the "Drop Listen-In if no Alarm" checkboxes. Select the Audio Type from the drop-down. Click Save.

Open the **Transmitter Programming** form and identify any programming for alarms that may be Two-Way signals. These signals **must** contain Audio Type commands:



Save the Transmitter Programming form and open the **Systems** form to set up the Transmitter. Ensure that the Audio Capable and Drop Listen-In if no Alarm checkboxes are selected.



When finished, click Save.

MediaGateway Configuration

Once the initial configuration is finished in the Manitou clients, you can move on to the MediaGateway to finish setting up Two-Way.

1. Open the Line Drivers configuration form and select the line from the Dialogic panel from the Line Driver drop-down menu. Enter a brief description, such as "Incoming phone line" into the Description field.

2. Select "TwoWayPLUS" from the Line Function drop-down menu.

3. In the Parameters field, set the following options:

FEP - This is the FEP that the receiver is located on. You can have multiple FEPs, which are separated by a comma (e.g.e FEP=1,FEP=2,FEP=3).

RECEIVER - This is the receiver number that receiving the two-way signal. This number matches the receiver number of the Surgard or OH2000 receiver that was set up in the Supervisor Workstation.

LINE - This is the physical line of the receiver that is receiving the signal.

TYPE - Select the Type of Two-Way. If using a receiver, this should be set to 0 (zero).

MENU - Select the menu that will be used with a Two-Way call. Menus can be edited in the Menu Items form.

LINEID - This is the reference field for internal line transfers to be grouped together. It is an arbitrary number, but it must match the LINEID for the Outbound call.

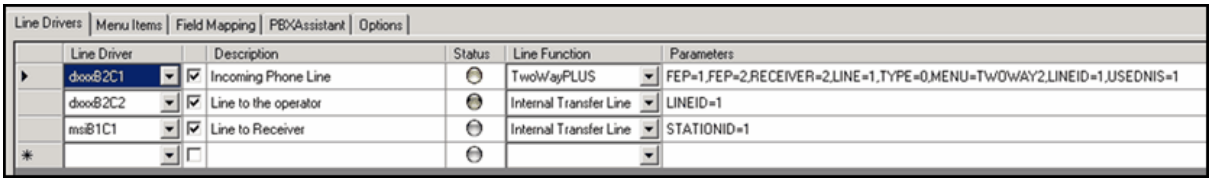
USEDNIS - This option is used for to send DNIS to receivers that can accept it. Since we set up DNIS to be used with the Surgard receiver, set this option. If set to 0, FSK will be sent between the first and second ring to pass the Caller ID information without the DNIS. If set to 1, DTMF tones are sent to the receiver in the format of <ANI>#<DNIS>#.

Note: DNIS length is set in the Telephony Server parameters in the Supervisor Workstation.

4. For the next Line Driver, select the line from the Dialogic panel that will be used as the phone line to the Operator. Select "Internal line transfer" from the Line Function menu. Set the LINEID parameter to match the LINEID in the previous TwoWayPLUS configuration.

Note: In previous versions of MediaGateway, "Internal Line Transfer" may be known as TwoWayPlusSlave.

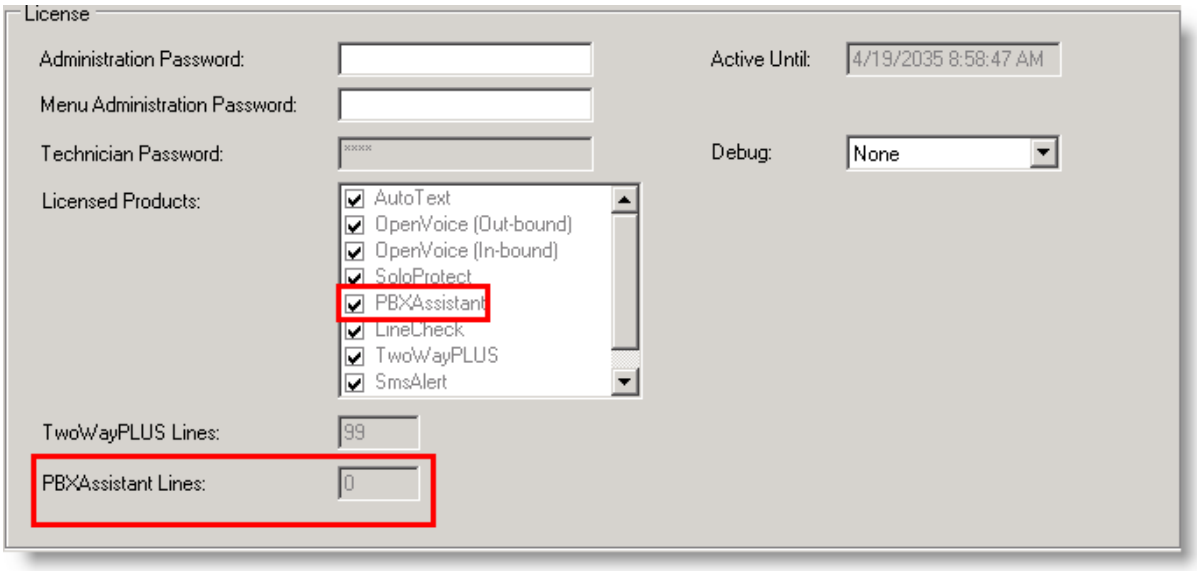
5. Last, select a station port from the Line Driver menu. This will begin with "msi." Enter the description "Line to Receiver," and select Internal Line Transfer from the Line Function menu. In the parameter configuration, set STATIONID=1.



ChannelBank Configuration

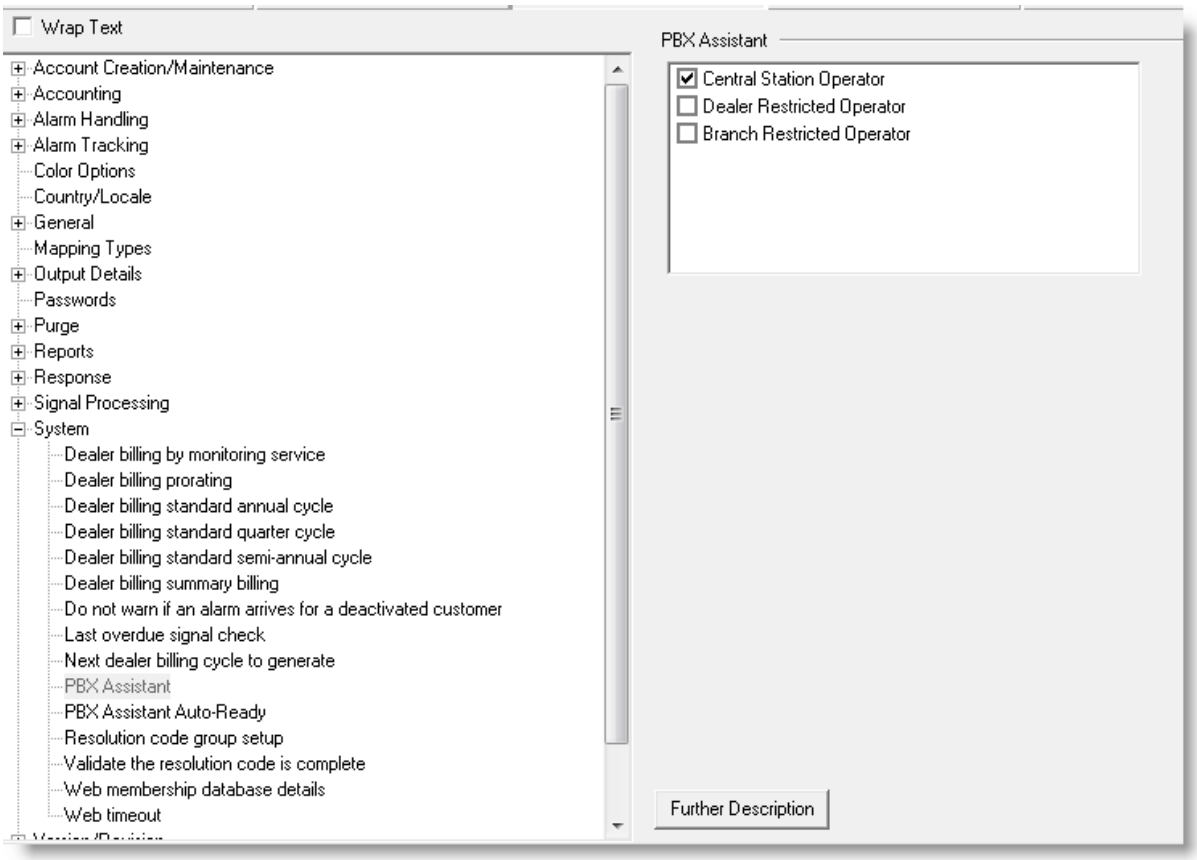
PBX Assistant Configuration

Before beginning the setup process, users must first be licensed in the MediaGateway to use the PBX Assistant. This licensing is performed by Bold Support personnel. Without the proper licensing, users will not be able to access the PBX assistant and its features. The number of PBX Assistant Lines must also be entered into the appropriate field.



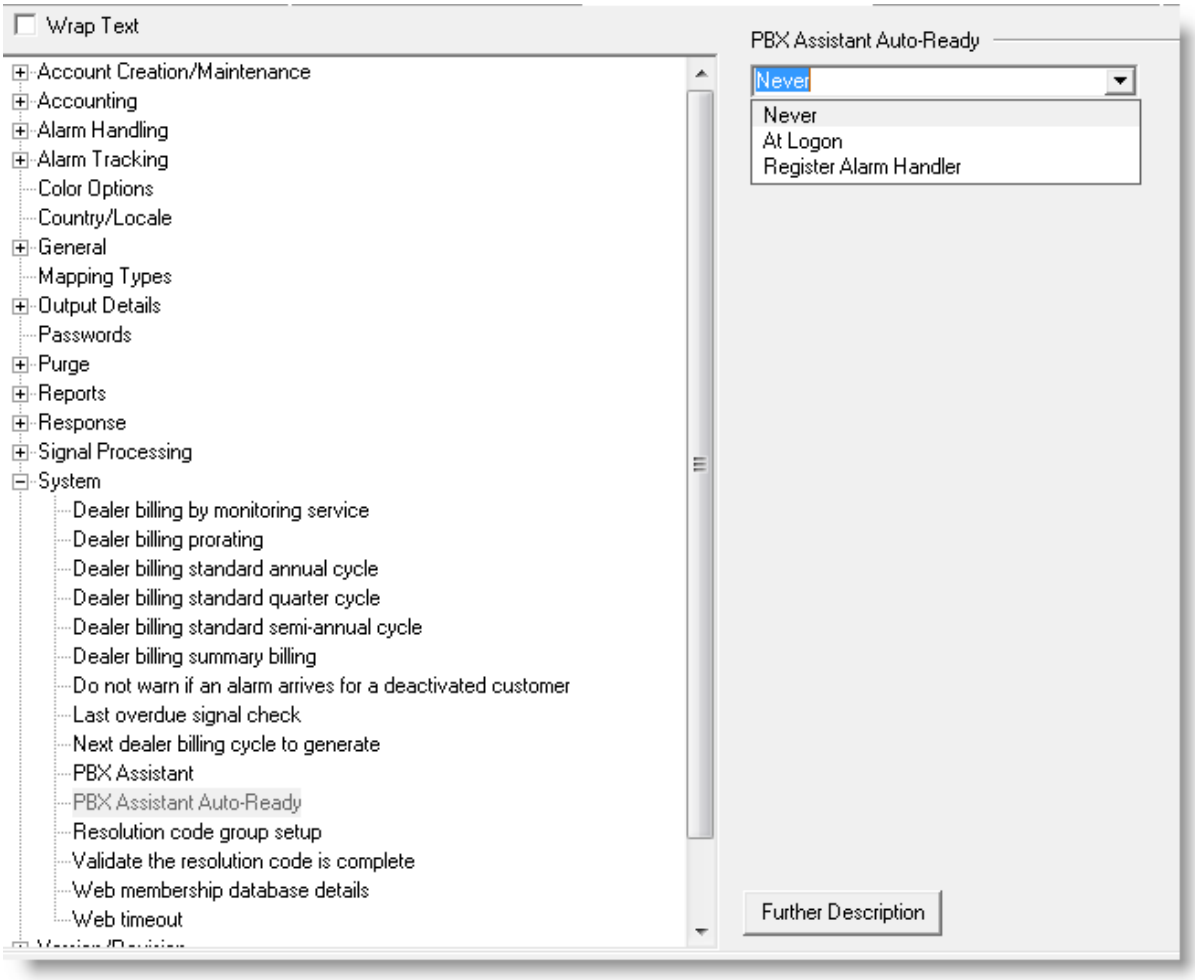
Supervisor Workstation Configuration

After the licensing is in place, open the Manitou Supervisor Workstation > Options and expand the System options:

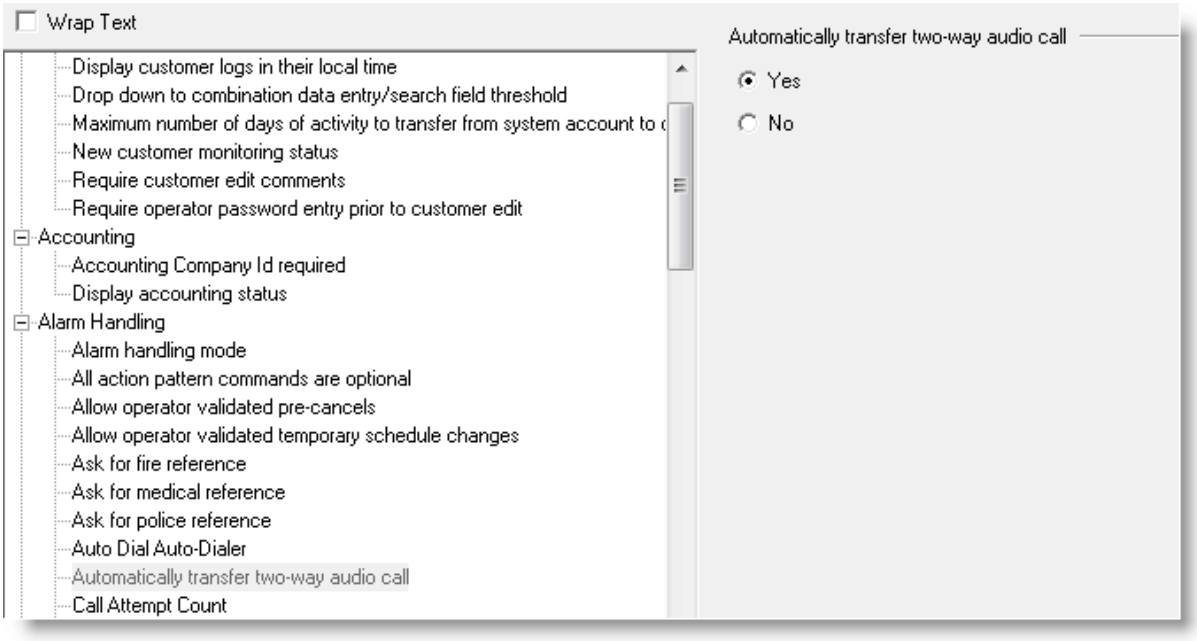


PBX Assistant - Select which type of Operator the PBX Assistant call control panel will be available to when logging on to Manitou. Most often, this is the Central Station Operator.

PBX Assistant Auto-Ready - This option indicates an agent is automatically available when the PBX Assistant is in use: Never (users would then manually make themselves available), At Logon (when the agent is logged into Manitou), or Register Alarm Handler (when the agent enters alarm handling mode).



Close the System options and expand the Alarm Handling options:



Automatically transfer two-way audio call - If set to "No," this option is ignored if PBXAssistant is activated; calls route through to the assistant and the operator can choose to take them. When set to "yes," the PBX Assistant will automatically transfer any two-way audio associated with an alarm to the alarm hander's extension.

Users and User Groups
In order for Operators or Supervisors to appear in the PBX Assistant, they must first be added as users and listed in a user group. Click on Maintenance > Users to bring up the Users form. Create or edit users by adding them into an Operator or Supervisor User Group, as you normally would in standard Manitou procedure. Enter the user's extension into the Extension field. This will be the extension where the PBX Assistant routes the calls. It is possible to enter multiple extensions that are separated by commas.

MediaGateway Configuration

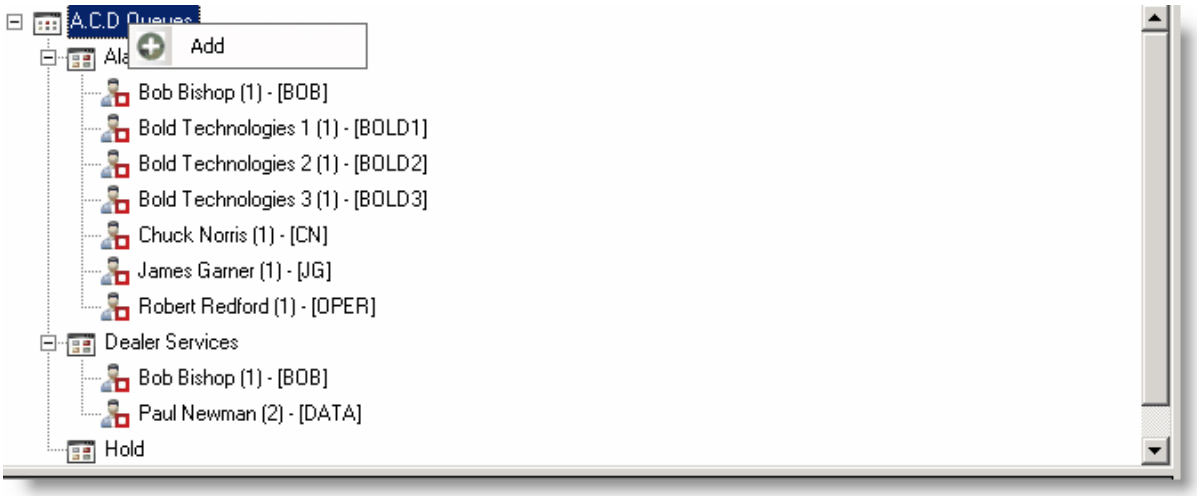
After completing the Manitou setup, we must now configure the line drivers for the PBX Assistant. Select the Line Driver to be associated with the PBX Assistant, and enter a description, if desired. In the Line Function drop down, select PBX Assistant. In the Parameters field, right-click and select the MENU parameter, and associate the appropriate ACD Queue menu with it. Then, right-click and select LINEID. Enter the Line ID - this is an arbitrary number that must match the internal line transfer Line ID. For your convenience, an ACD Queue menu template is provided with the MediaGateway program.

On the following line, select the Line Driver to be associated with the PBX Assistant Transfer Line. Select "Internal Transfer Line" from the Line Function drop-down menu, and right-click to enter the LINEID in the parameter field. Remember, this must be a one to one match with the Line IDs you have set up for the PBX Assistant Line Driver.

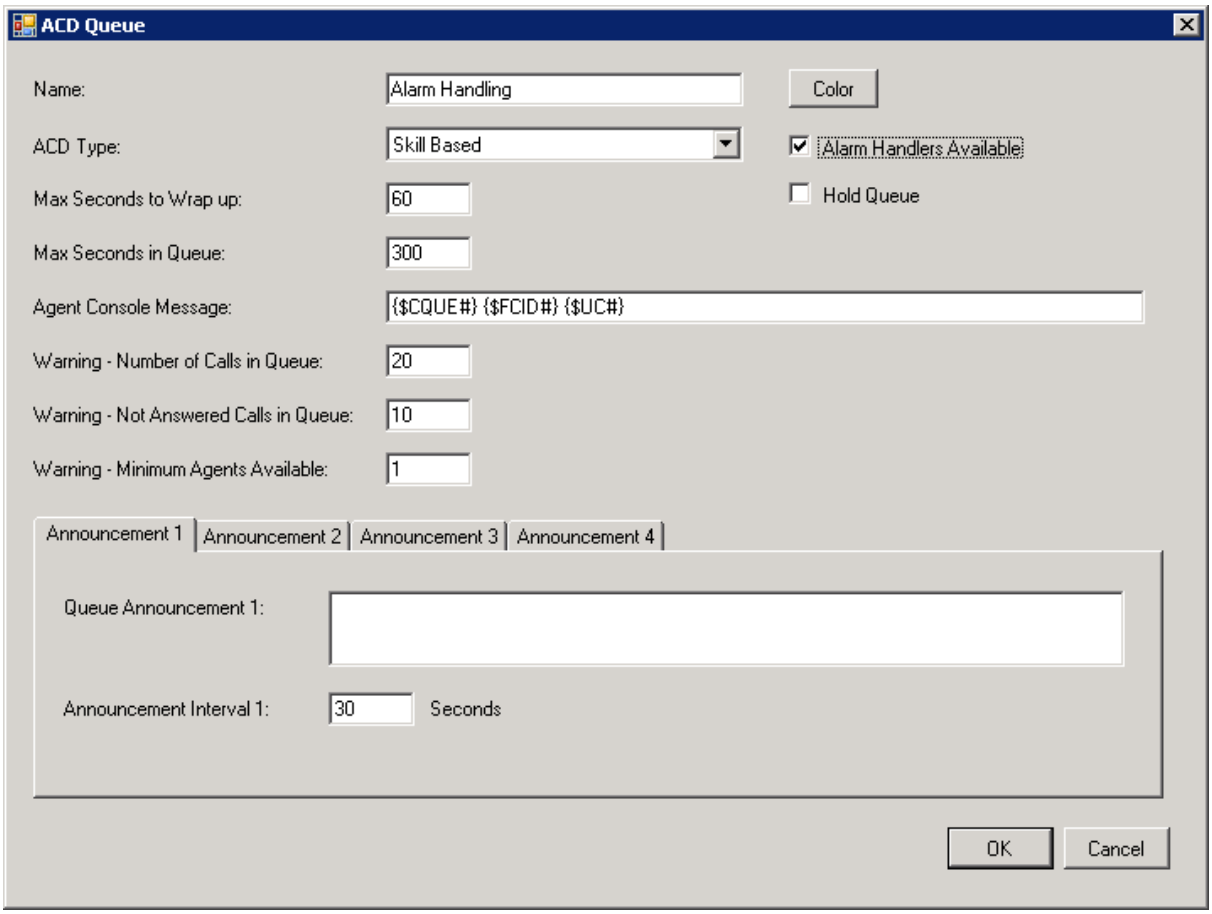
Line Driver		Description	Status	Line Function	Parameters	Driver
COM3	☑	MultiTech Modem		AutoText	LOOKUP=($SMS#)	
dxxxB1C1	☑	PBXAssistant		PBXAssistant	MENU=ELEV,LINEID=1	
dxxxB1C2	☑	PBXAssistant Transfer Line		Internal Transfer Line	LINEID=1	
dxxxB1C3	☑	Inbound OpenVoice Tech		OpenVoice (In-bound)	MENU=IVRT2	
dxxxB1C4	☑	Outbound OpenVoice		OpenVoice (Out-Bound)	MENU=EOC	

PBX Assistant Setup

Once the Line Drivers are in place, the next step is to create an ACD Queue. In the following example, we'll create an Alarm Handling Queue. Select the A.C.D. Queue menu on the PBX Assistant form and right-click to Add a new A.C.D. Queue:



This will bring up the ACD Queue form:



Creating an ACD Queue

Enter a name for the queue, such as "Alarm Handling". If you wish, you can choose colors to use in the dashboard view to view call activity.

Select the ACD Type. This will be the mechanism that is going to be used to find an agent.

- **Skill Based** - Use this type of routing to assign incoming calls to the most skilled agent. For example, in an Alarm Handling ACD Queue, the calls should be routed to agent who are alarm handlers rather than agents who typically deal with data entry. Each agent has a priority level which is associated with their skill set.
- **First in List** - With this type of routing, the first agent on the list receives every call, and if that agent isn't available, the call is routed to the next agent.
- **Round Robin** - When Round Robin is used, each agent receives calls in succession beginning with the agent succeeding the last agent to answer a call.
- **Longest Idle** - The agent who has waited the longest since the last call will take the next call.
- **Average Longest Idle** - Based on calculations, the agent with the average longest idle time in a given time period will take the next call.
- **Fewest Calls** - The agent to have answered the fewest calls in a given time period is

delivered all calls.
- **Shortest Average Talk Time** - The agent who spends the least amount of time on a call is delivered the calls.

If this will be an alarm handling queue, check "**Alarm Handlers Available.**" This means that if someone in the queue is calling in regards to an alarm that is currently being handled by an agent, then the call will be routed to that agent. If the agent has handled the alarm and suspended or deferred it, the call will also be routed to the agent who is tracking the alarm. Normally, if an agent handles an alarm, they will be taken out of all call queues so they can finish handling the alarm.

Check the **Hold Queue** checkbox to place calls that are on hold into a special hold queue. Hold queues are similar to other queues with the exception that the system does not attempt to find an available agent when a caller is placed into the hold queue. Instead, the caller is returned to the original agent when they are taken off hold.

Max Seconds to Wrap Up - Enter the time allocated to an agent before they can receive another call. More time will allow them to do any follow up or additional work after a call is finished.
Max Seconds in Queue - Enter the time the caller should remain in the call queue before exiting. You can set up the ACD Queue menu to loop back out, put the caller back into another queue, or ask the caller if they would like to remain on the line or leave a message. In a typical scenario, the caller is added to the call queue where, if an agent answers the call, the caller "drops out" of the menu successfully and the call is handled. However, if the caller remains in the queue and the "Max Seconds in Queue" time limit is reached, the caller is released from the hold queue and is directed through the menu, depending on how the menu is set up (remain on the call, leave a message, etc.)

Agent Console Message - This is the message that the Agent will see displayed in the Manitou Operator workstation when they receive a call on the PBX Assistant. The default is {$CQUE#} {$FCID#} {$UC#}, where:
{$CQUE#} is the queue name (such as Alarm Handling)
{$FCID#} is the formatted caller ID
{$UC#} is the contact name.

For example, the agent will see "Alarm Handling (719) 555-1234 John Doe" in Manitou. Right clicking in the field will bring up the variables dialog, so users can change which variables the agents will see. note that not all variables can be used contextually with calls.

Warnings
The warnings are entered values that, when triggered, cause the fields to turn red in the call summary view. This is a visual warning to alert agents or supervisors of special circumstances, such as too many calls in the queue or too few agents available.

Announcements
Announcements are played at various intervals when a caller is waiting in a queue. Each

subsequent announcement must have a greater time interval than the previous announcement. Like the Agent Console Message, you can right-click in the announcement field and add variables. Typically, two variables are used - {$QWT#} and {$QPOS#}. This is the caller's queue wait time and their queue position, respectively.

Adding Agents to Queues

Once the ACD Queue is set up, click ok to return to the main PBX Assistant screen. The newly created Alarm Handling queue will appear in the ACD Queues tree.
Click on an agent in the agent pool and drag the agent to the ACD Queue you wish the agent to be in. This will prompt you to enter a priority for the agent. The priority is used primarily for skill-based routing, but can also be used to organize and order agents for other ACD Queue types, such as round robin routing.

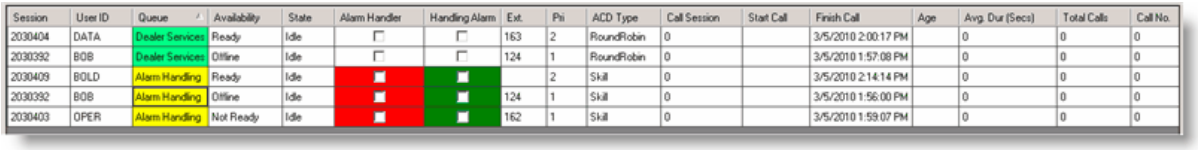
Agent Status

Agents that are online and available to take calls are signified by a green check. 

Agents that are offline are indicated by a red square. 
Agents that are not ready (handling a call or finishing up alarm handling) have a red "No Entry" icon. 

Agent Queue Status

The Agent Queue Status window displays all the queues and agents and the different states the agents are in, such as Ready, Offline or Not Ready. If agents are not logged into Manitou, then they will not appear in the Agent Queue Status. If the queue is an alarm handling queue, such as the one created earlier, "Alarm Handler" and "Handling Alarm" columns will be highlighted.



Session	User ID	Queue	Availability	State	Alarm Handler	Handling Alarm	Ext.	Pri	ACD Type	Call Session	Start Call	Finish Call	Age	Avg. Dur (Secs)	Total Calls	Call No.
2030404	DATA	Dealer Services	Ready	Idle	☐	☐	163	2	RoundRobin	0		3/5/2010 2:00:17 PM		0	0	0
2030392	BOB	Dealer Services	Offline	Idle	☐	☐	124	1	RoundRobin	0		3/5/2010 1:57:08 PM		0	0	0
2030409	BOLD	Alarm Handling	Ready	Idle	☐	☐		2	Skill	0		3/5/2010 2:14:14 PM		0	0	0
2030392	BOB	Alarm Handling	Offline	Idle	☐	☐	124	1	Skill	0		3/5/2010 1:56:00 PM		0	0	0
2030403	OPER	Alarm Handling	Not Ready	Idle	☐	☐	162	1	Skill	0		3/5/2010 1:59:07 PM		0	0	0

If the Alarm Handler column is red, it is indicating a warning that an agent is not in alarm handling mode, even though it is an alarm handling queue. A green column, however, indicates that an agent is in alarm handling mode. **Note:** An agent will receive calls irregardless if they are in alarm handling mode.

If the Handling Alarm column is yellow, it is indicating that the agent is currently handling an alarm and will not receive calls unless the call relates to the alarm they are handling.
Likewise, a green column indicates that the agent is available to receive calls from the queue.