
AVTEC – VPGate and Revcord Configuration

MMS Version 12.1
Revision 9.2023

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INTRODUCTION

Avtec audio requires use of the Revcord Avtec integration. It is not possible to fully record Avtec audio without the Revcord integration. Avtec has tested Revcord's Avtec integration at the Avtec lab and is fully certified as Avtec Gold compliant.

For all recorded audio calls, Revcord captures and displays all Avtec provided metadata. Specifically, if Avtec provides a radio ID or telephone number for a specific audio call, Revcord will capture, label and display that data. In general, if specific metadata is displayed on the Avtec console, it will also appear in the Revcord system.

Avtec operates using TCP and UDP network packets directly addressed to the recorder. Usage of a network port-span (port-mirror) is NOT required.

Networks at specific customers vary. In some cases, Avtec data is on a separate network and this network must be provided to the Revcord recorder. In many cases this is as simple as plugging a network cable from the Avtec switch/router to a separate network interface (NIC) on the Revcord recorder. (Revcord recorders have two NICs.) In other cases, where customers route Avtec data over their standard office network, usage of a second NIC is not required.

REQUIRED INFORMATION

1. How many Avtec VPGate channels will be recorded by the Avtec integration?
2. How many console positions will be recorded? Revcord will record the "select audio" of each position.
3. If desired, Revcord can also record console position "unselect audio".
4. For each end-point (VPGate), provide the name to be used as the channel label in the recorder. Also provide the RX port and the TX port.
5. For each console position, provide the name to be used as the channel label in the recorder. Also provide the network port used to transmit audio. (RX and TX audio use the same port.)
6. To aid in properly labeling calls for each console position, provide the network IP of each console.

End-Point Configuration:

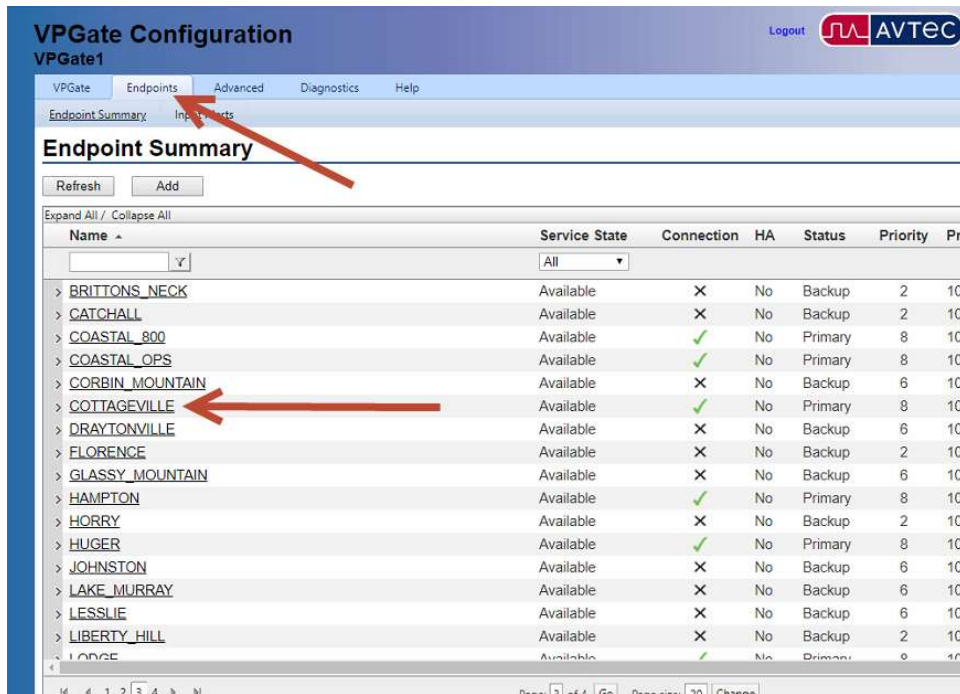
Avtec end-point configuration is configured using the Avtec “VPGate”. Each endpoint must be configured in the manner described below.


1. There may be a considerable number of endpoints and they each must be properly configured.
2. If backup (redundant) VPGates are used, the main and backup VPGates must all be configured identically. This doubles the amount of configuration work.

Endpoint – Step 1:

To configure a specific endpoint:

1. Select the “Endpoints” tab.
2. Then click the specific endpoint.



VPGate Configuration Logout 

VPGate Endpoints Advanced Diagnostics Help

Endpoint Summary Endpoint Summary

Endpoint Summary

Refresh Add

Expand All / Collapse All

Name	Service State	Connection	HA	Status	Priority	Pri
> BRITTONS_NECK	Available	X	No	Backup	2	10.
> CATCHALL	Available	X	No	Backup	2	10.
> COASTAL_800	Available	✓	No	Primary	8	10.
> COASTAL_OPS	Available	✓	No	Primary	8	10.
> CORBIN_MOUNTAIN	Available	X	No	Backup	6	10.
> COTTAGEVILLE	Available	✓	No	Primary	8	10.
> DRAYTONVILLE	Available	X	No	Backup	6	10.
> FLORENCE	Available	X	No	Backup	2	10.
> GLASSY_MOUNTAIN	Available	X	No	Backup	6	10.
> HAMPTON	Available	✓	No	Primary	8	10.
> HORRY	Available	X	No	Backup	2	10.
> HUGER	Available	✓	No	Primary	8	10.
> JOHNSTON	Available	X	No	Backup	6	10.
> LAKE_MURRAY	Available	X	No	Backup	6	10.
> LESSLIE	Available	X	No	Backup	6	10.
> LIBERTY_HILL	Available	X	No	Backup	2	10.
> LODGE	Available	✓	No	Primary	8	10.

Endpoint - Step 2:

The endpoint configuration screen is displayed. Scroll down to view the lower part of the screen.

1. Set the “Endpoint Audio Is Recorded” field to “YES”.
2. Then click the “Update” button to save the data changes.

The screenshot displays the VPGate Configuration web interface for VPGate1. The interface includes tabs for VPGate, Endpoints, Advanced, Diagnostics, and Help. The current view is the Endpoint Configuration page, which is part of the Endpoint Summary. The page features an 'Update' button, 'Defaults', and 'Reset' buttons. The configuration is organized into sections: Inbound Calls, Miscellaneous, Recorder Options, and Drivers. The 'Recorder Options' section is highlighted, and the 'Endpoint Audio Is Recorded' field is set to 'YES'. A red arrow points to this field. Another red arrow points to the 'Update' button. The 'Drivers' section shows a list of drivers with red 'X' marks next to them.

Field	Value
Allow Inbound Outbound Audio	YES
Emergency Only	NO
Call Clear Time Out	3600
Duplicate Call Supported	NO
PTT Time Out	300
PTT Override Priority	FIRST CONSOLE
PTT Override Immunity Time	10
Secondary Keying Action	NONE
DTMF Delivery	RTP EVENTS
Redundant Priority	8
Default Frequency Behavior	Disconnect
Endpoint Audio Is Recorded	YES
Produce Beep Tone	NONE

Drivers:

- 1 - ANI Alias
- 2 - Audio Forwarding
- 3 - Outpost

Endpoint - Step 3:

After "Update" has been clicked, scroll down to the bottom of the screen.

1. Click "2 - Audio Forwarding".

VPGate Configuration Logout **AVTEC**

VPGate Endpoints **Advanced** Diagnostics Help

Endpoint Summary Input Alerts

[Endpoint Summary](#) > Endpoint Configuration

Endpoint Configuration

Update Defaults Reset

Allow Barge-in/monitor Outbound Audio YES

Inbound Calls

Emergency Only	NO
Call Clear Time Out	3600
Duplicate Call Supported	NO

Miscellaneous

PTT Time Out	300
PTT Override Priority	FIRST CONSOLE
PTT Override Immunity Time	10
Secondary Keying Action	NONE
DTMF Delivery	RTP EVENTS
Redundant Priority	8
Default Frequency Behavior	Disconnect

Recorder Options

Endpoint Audio Is Recorded	YES
Produce Beep Tone	NONE

Drivers

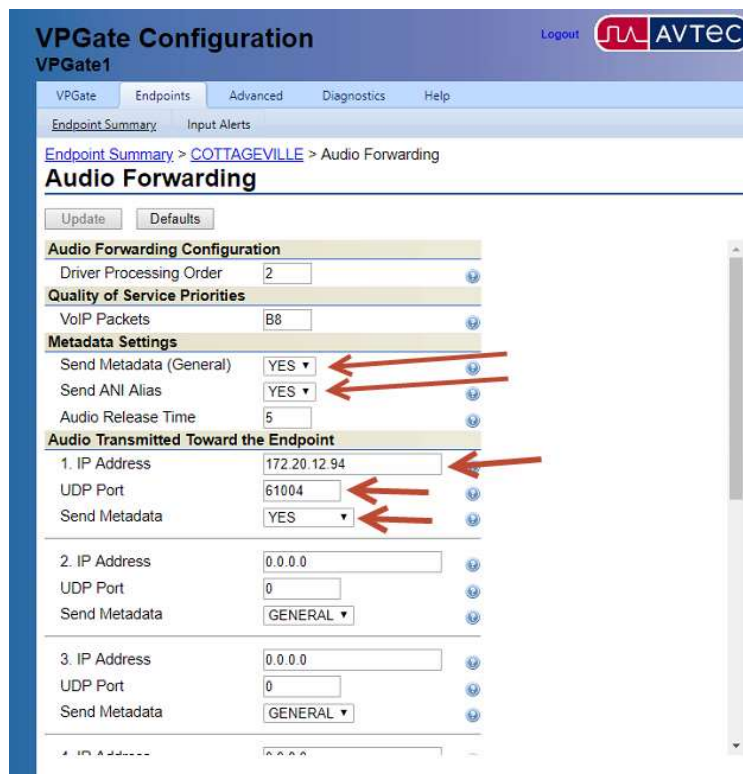
Select Add driver


- 1 - ANI Alias X
- 2 - Audio Forwarding X
- 3 - Outpost X

Endpoint – Step 4:

The “Audio Forwarding” page is displayed.

1. In the “Metadata Settings” section:
 - a) Set the “Send Metadata (General)” field to “YES”.
 - b) Set the “Send ANI Alias” field to “YES”.
2. In the “Audio Transmitted Toward the Endpoint” section:
 - a) Set the “IP Address” field to the IP address of the Revcord recorder.
 - b) Set the “UDP Port” field to the network port number that is used for communication with the recorder.
 NOTE: Use an otherwise unused network UDP port number.
 NOTE: Each endpoint must use a unique port number.
 - c) Set the “Send Metadata” field to “YES”.



VPGate Configuration Logout 

VPGate Endpoints Advanced Diagnostics Help

Endpoint Summary Input Alerts

Endpoint Summary > COTTAGEVILLE > Audio Forwarding

Audio Forwarding

Update Defaults

Audio Forwarding Configuration

Driver Processing Order: 2

Quality of Service Priorities

VoIP Packets: B8

Metadata Settings

Send Metadata (General): YES

Send ANI Alias: YES

Audio Release Time: 5

Audio Transmitted Toward the Endpoint

1. IP Address: 172.20.12.94

UDP Port: 61004

Send Metadata: YES

2. IP Address: 0.0.0.0

UDP Port: 0

Send Metadata: GENERAL

3. IP Address: 0.0.0.0

UDP Port: 0

Send Metadata: GENERAL

4. IP Address: 0.0.0.0

UDP Port: 0

Send Metadata: GENERAL

Endpoint – Step 5:

Scroll the same window to the bottom.

In the “Audio Received From the Endpoint” section:

1. Set the “IP Address” field to the IP address of the Revcord recorder.
2. Set the “UDP Port” field to the network port number that is used for communication with the recorder.

NOTE: Use an otherwise unused network UDP port number.

NOTE: Each endpoint must use a unique port number.

NOTE: This must be a different port number than used for audio transmit.

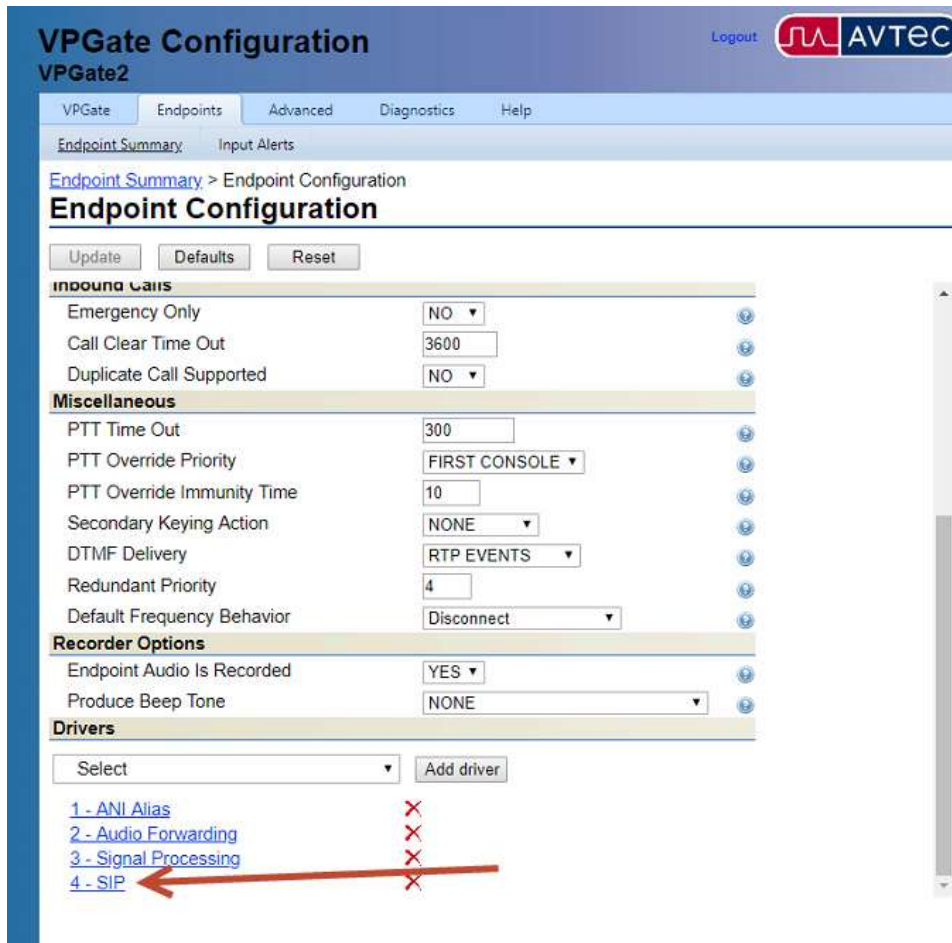
3. Set the “Send Metadata” field to “YES”. Then click the “Update” button to save the data changes.

The screenshot shows the VPGate Configuration interface for VPGate1. The navigation tabs include VPGate, Endpoints, Advanced, Diagnostics, and Help. The current view is 'Endpoint Summary' for 'COTTAGEVILLE' > 'Audio Forwarding'. The 'Audio Forwarding' section has an 'Update' button and a 'Defaults' button. Below this, there are four endpoint configurations. The first endpoint, under the 'Audio Received From the Endpoint' section, has the following values: IP Address: 172.20.12.94, UDP Port: 61005, and Send Metadata: YES. Red arrows point to these three fields. The other three endpoints have default values: IP Address: 0.0.0.0, UDP Port: 0, and Send Metadata: GENERAL.

Endpoint – Step 6:

When configuring an endpoint used for phones, additional steps are required. This is specific to any interface using SIP.

1. In the “Endpoint Configuration” section scroll to the bottom and click the “SIP” link:



The screenshot shows the VPGate Configuration web interface. The main heading is "VPGate Configuration" with a "Logout" link and the AVTEC logo. Below the heading are tabs for "VPGate", "Endpoints", "Advanced", "Diagnostics", and "Help". The "Endpoints" tab is selected, and the "Endpoint Configuration" section is active. The page contains several configuration sections:

- Inbound Calls:** Emergency Only (NO), Call Clear Time Out (3600), Duplicate Call Supported (NO).
- Miscellaneous:** PTT Time Out (300), PTT Override Priority (FIRST CONSOLE), PTT Override Immunity Time (10), Secondary Keying Action (NONE), DTMF Delivery (RTP EVENTS), Redundant Priority (4), Default Frequency Behavior (Disconnect).
- Recorder Options:** Endpoint Audio Is Recorded (YES), Produce Beep Tone (NONE).
- Drivers:** A list of drivers with checkboxes:
 - 1 - ANI Alias (checked)
 - 2 - Audio Forwarding (checked)
 - 3 - Signal Processing (checked)
 - 4 - SIP (checked, highlighted with a red arrow)

Endpoint – Step 7:

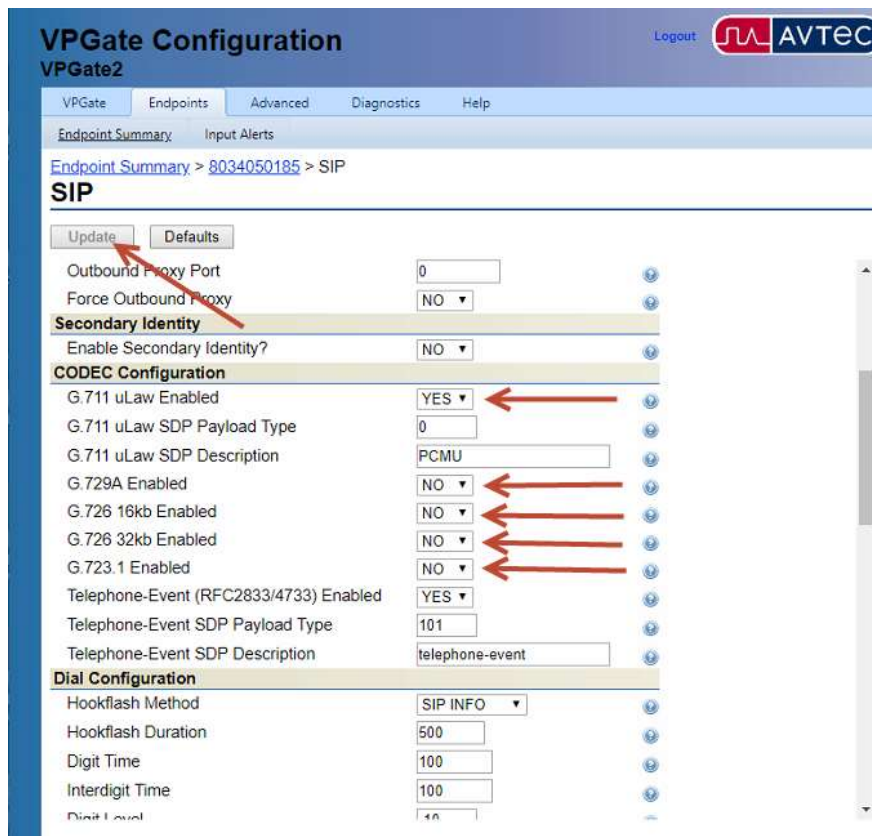
When configuring an endpoint used for phones, an additional step is required. This is specific to any interface using SIP.


This step configures SIP devices (usually phones) to use only the “G.711 uLaw” codec. This is the only codec supported by Revcord and is the best codec for audio quality.

Scroll to the “CODEC Configuration” section:

1. Set the “G.711 uLaw Enabled” field “YES”.
2. Set the “G.729a Enabled” field “NO”.
3. Set the “G.726 16kb Enabled” field “NO”.
4. Set the “G.726 32kb Enabled” field “NO”.
5. Set the “G.723.1 Enabled” field “NO”.

Then click the “Update” button to save the data changes.



VPGate Configuration Logout 

VPGate2

VPGate Endpoints Advanced Diagnostics Help

Endpoint Summary Input Alerts

Endpoint Summary > 8034050185 > SIP

SIP

Update Defaults

Outbound Proxy Port

Force Outbound Proxy

Secondary Identity

Enable Secondary Identity?

CODEC Configuration

G.711 uLaw Enabled

G.711 uLaw SDP Payload Type

G.711 uLaw SDP Description

G.729a Enabled

G.726 16kb Enabled

G.726 32kb Enabled

G.723.1 Enabled

Telephone-Event (RFC2833/4733) Enabled

Telephone-Event SDP Payload Type

Telephone-Event SDP Description

Dial Configuration

Hookflash Method

Hookflash Duration

Digit Time

Interdigit Time

Digit Level

Console Select/Unselect Configuration

Avtec select and unselect configuration is configured by connecting directly to specific console's Avtec configuration. Each console must be configured in the manner described below.

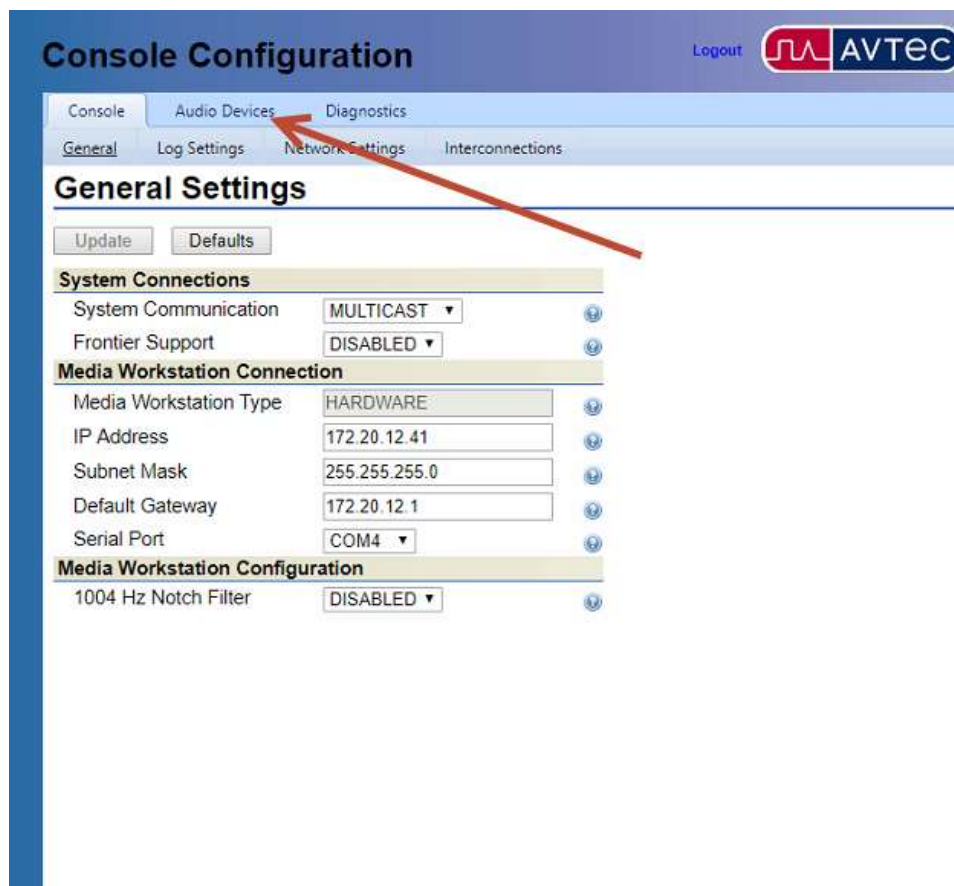
There may be a considerable number of consoles, and they each must be properly configured.

Select and Unselect configuration is configured similarly. Configuration settings must be unique for select and unselect and also for each console.

Select/Unselect – Step 1:

To configure a specific console for select and unselect audio:

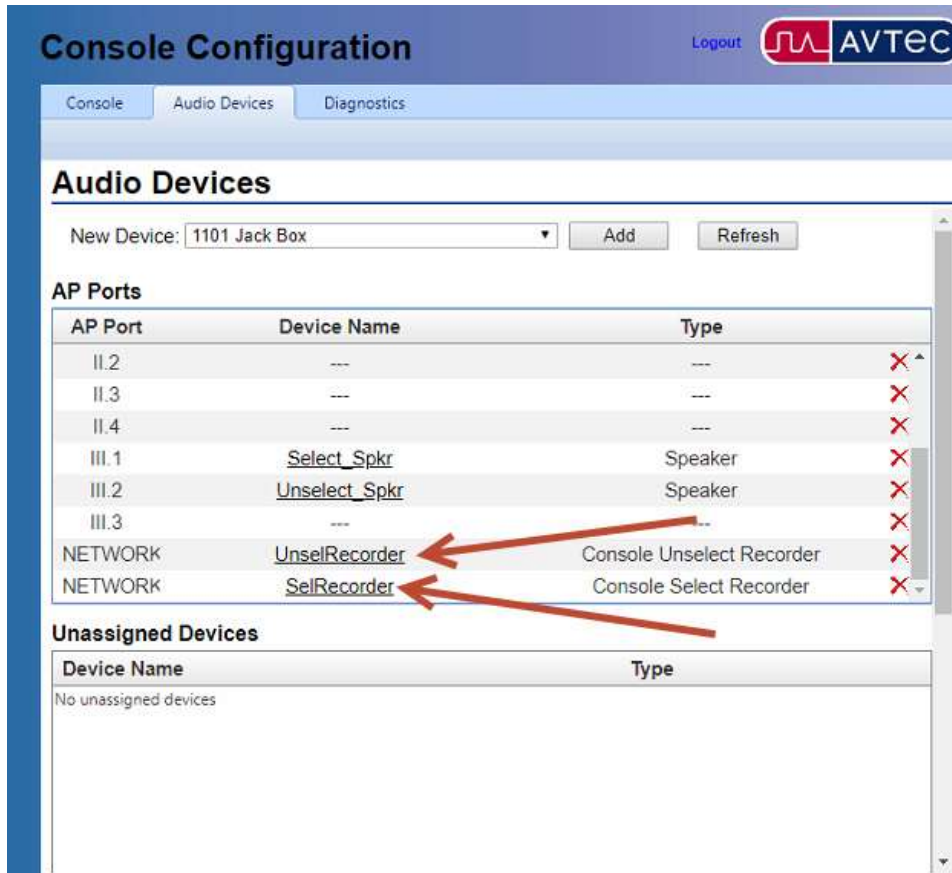
1. Open the specific console's Avtec configuration. Each console has a separate configuration page.
2. Click the "Audio Devices" tab.




Select/Unselect - Step 2:

The “Audio Devices” page is displayed.

Scroll the top “AP Ports” section to the bottom. This will reveal Device Names “UnselRecorder” and “SelRecorder”.



Console Configuration Logout 

Console Audio Devices Diagnostics

Audio Devices

New Device: 1101 Jack Box

AP Ports

AP Port	Device Name	Type	
II.2	---	---	✗ ^
II.3	---	---	✗
II.4	---	---	✗
III.1	Select_Spkr	Speaker	✗
III.2	Unselect_Spkr	Speaker	✗
III.3	---	---	✗
NETWORK	UnselRecorder	Console Unselect Recorder	✗
NETWORK	SelRecorder	Console Select Recorder	✗

Unassigned Devices

Device Name	Type
No unassigned devices	

Select/Unselect – Step 3:

1. Click the “SelRecorder” to open configuration for select audio recording.
2. Set the “IP Address” field to the Revcord recorder’s IP.
3. Set the “Port” field.

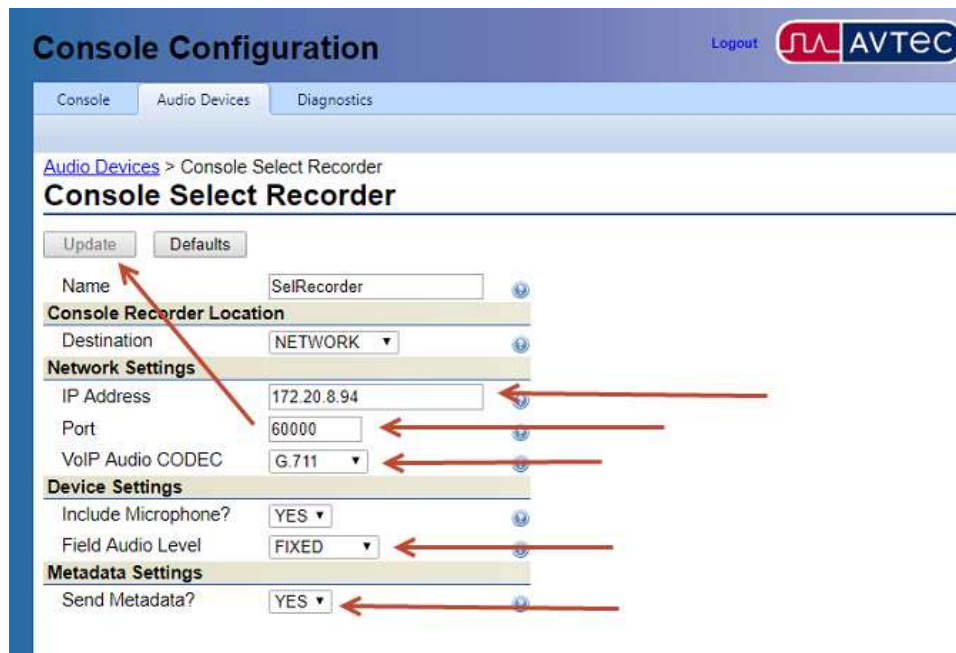
NOTE: This port number will need to be configured within Revcord’s Avtec integration.


NOTE: Use an otherwise unused network UDP port number.

NOTE: Each endpoint must use a unique port number.

4. Set the “VoIP Audio CODEC” field to “G.711”.
5. Set the “Field Audio Level” field to “FIXED”.
6. Set the “Send Metadata?” field to “YES”.

Click the “Update” button to save the data changes.




Console Configuration Logout 

Console Audio Devices Diagnostics


[Audio Devices](#) > Console Select Recorder

Console Select Recorder


Update Defaults


Name 


Console Recorder Location

Destination 


Network Settings


IP Address 

Port 


VoIP Audio CODEC 

Device Settings

Include Microphone? 

Field Audio Level 

Metadata Settings

Send Metadata? 

Select/Unselect – Step 4:

If unselect audio is being used by the recorder customer, click the “UnselRecorder” to open configuration for unselect audio recording. Follow similar settings to those used for select audio.

1. Set the “IP Address” field to the Revcord recorder’s IP.
2. Set the “Port” field.

NOTE: This port number will need to be configured within Revcord’s Avtec integration.

NOTE: This port number must be unique and cannot be shared with select audio.

3. Set the “VoIP Audio CODEC” to “G.711”.
4. Set the “Field Audio Level” field to “FIXED”.
5. Set Metadata? To “YES”.

Click the “Update” button to save the data changes.

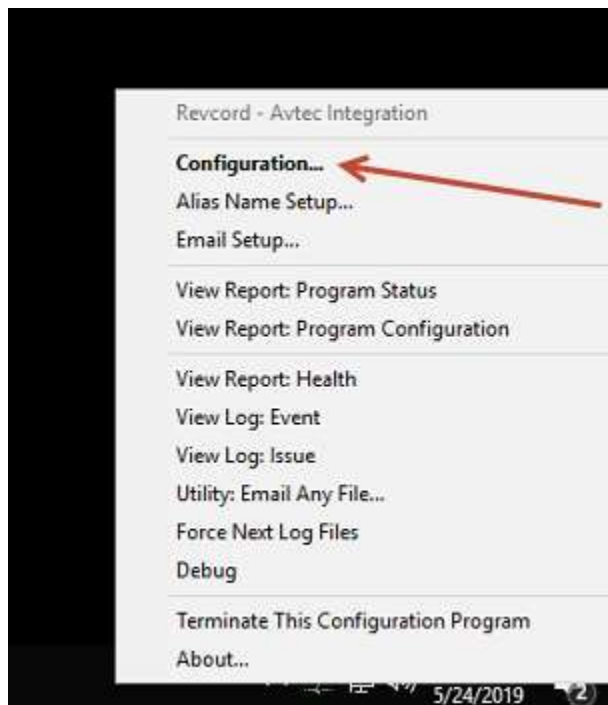
The screenshot shows the 'Console Configuration' interface for the 'Console Unselect Recorder'. The page has a blue header with 'Logout' and the 'AVTEC' logo. Below the header are tabs for 'Console', 'Audio Devices', and 'Diagnostics'. The main content area is titled 'Console Unselect Recorder' and includes an 'Update' button and a 'Defaults' button. The settings are organized into sections: 'Console Recorder Location' (Destination: NETWORK), 'Network Settings' (IP Address: 172.20.8.94, Port: 60001, VoIP Audio CODEC: G.711), 'Device Settings' (Field Audio Level: FIXED), and 'Metadata Settings' (Send Metadata?: YES). Red arrows point to the 'Update' button, the 'Name' field (UnselRecorder), the 'IP Address' field, the 'Port' field, the 'VoIP Audio CODEC' dropdown, the 'Field Audio Level' dropdown, and the 'Send Metadata?' dropdown.

Revcord Configuration

Revcord's Avtec integration uses a system tray icon (computer on a network). Right click the icon to access the program's main menu.

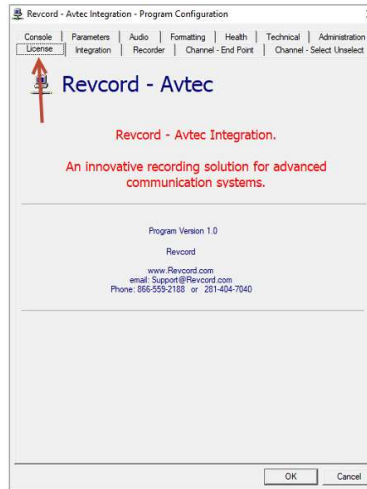


The program's main menu appears. Select the "Configuration..." menu option.



Revcord Configuration: Step 1

The configuration program's window displays. The initial default "License" tab is displayed.

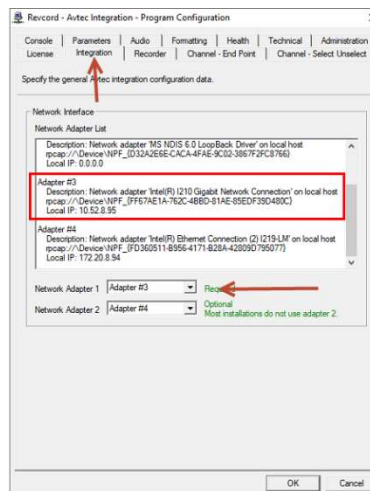


Revcord Configuration: Step 2

Select the "Integration" tab.

Enter configuration data for each network interface that contains Avtec data.

1. Scroll list area to view each interface available on the computer. The easiest method to recognize an interface is to note the "Local IP" used by that interface.
2. Most end-customers use one network for Avtec data and so only one network interface is used.
3. Usually the second network adapter is blank.



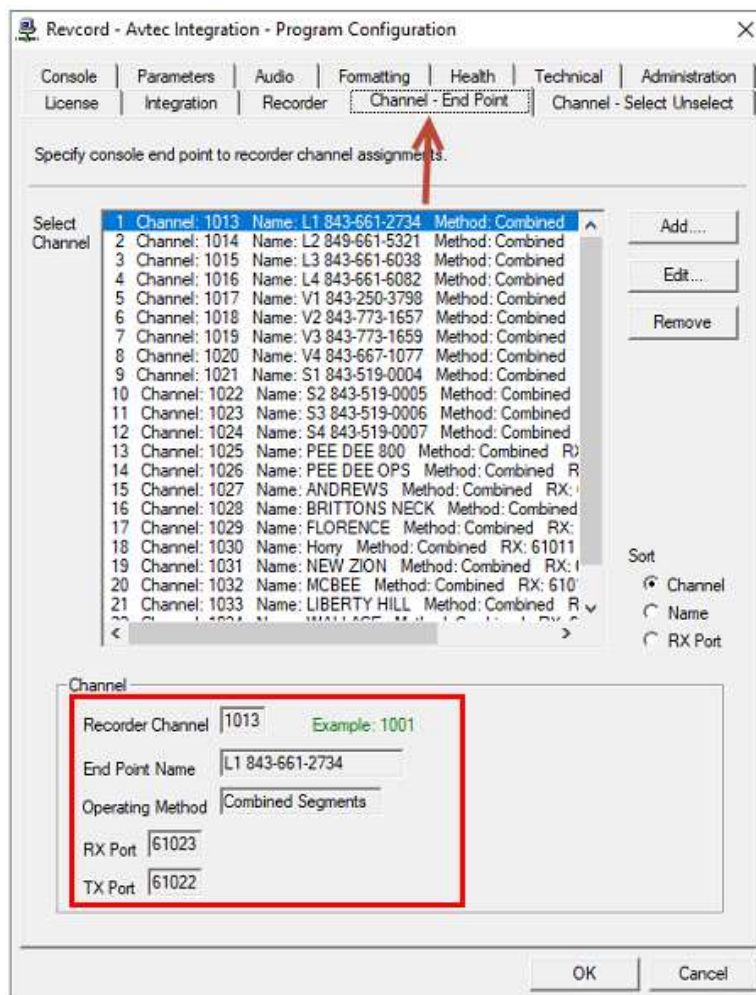
Revcord Configuration: Step 3

Select the “Channel - End-Point” tab.

Enter configuration data for each endpoint.

1. For most end-customers, select the “Operating Method” entry “Combined Segments”.
2. Each configuration uses two port numbers. The RX and TX port numbers must be different from each other.

NOTE: Each port number must be unique and not used for any other Avtec configuration.

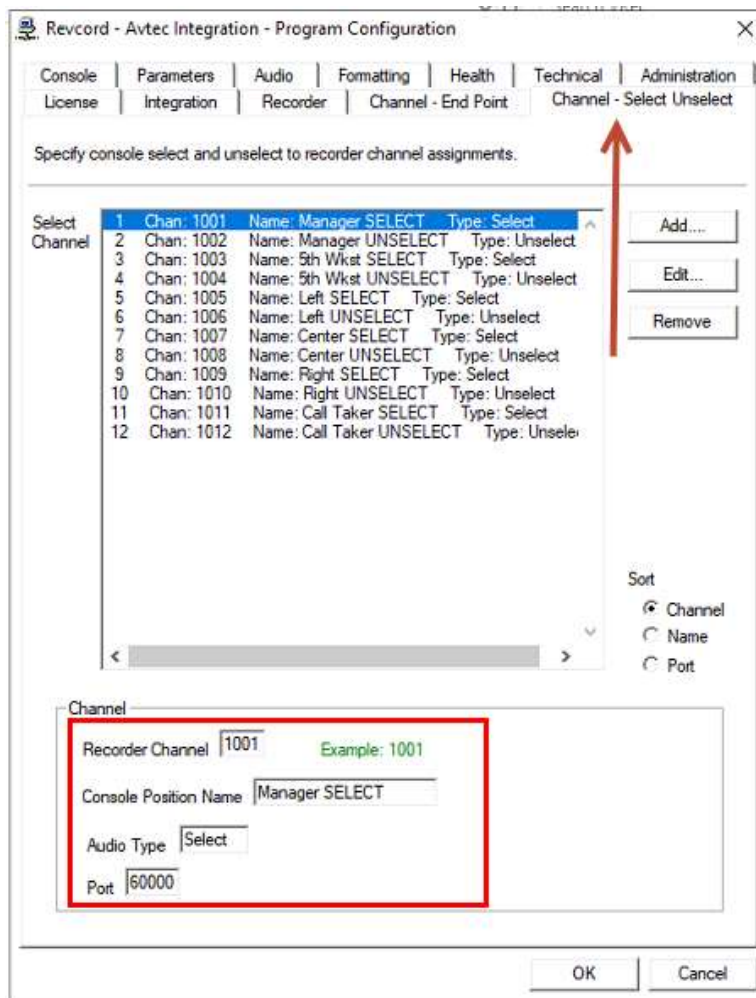


Revcord Configuration: Step 4

Select the “Channel - Select Unselect” tab.

1. Enter configuration data for each select and unselect channel.
2. Each configuration uses only one port number.

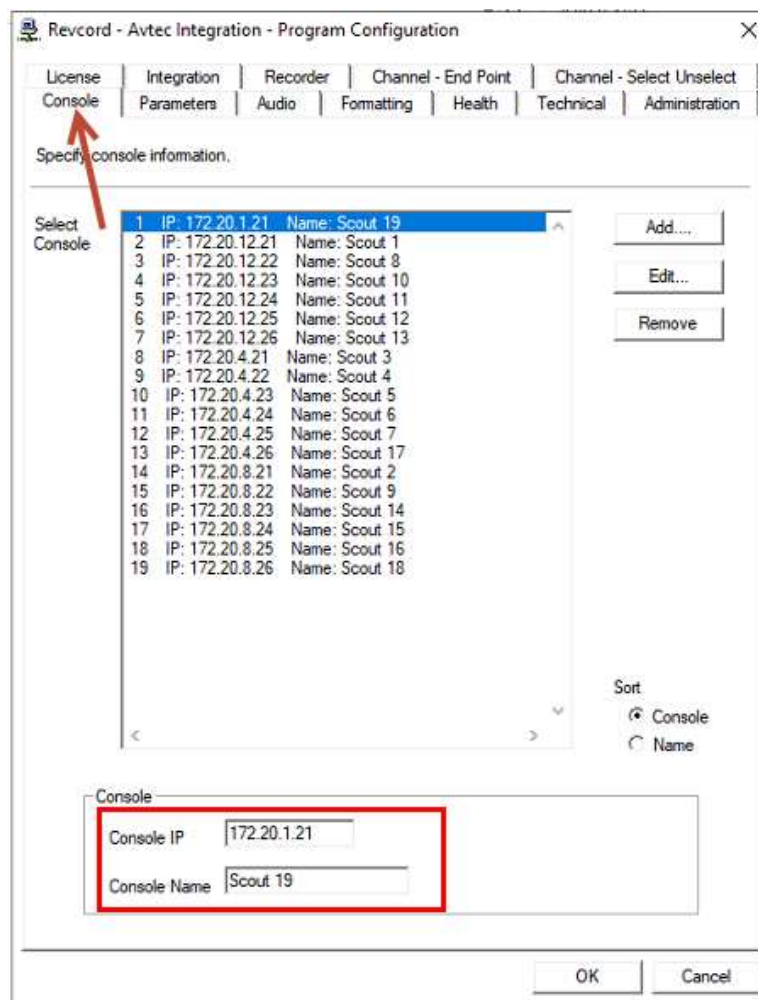
NOTE: Each port number must be unique and not used for any other Avtec configuration.



Revcord Configuration: Step 5

Select the “Console” tab.

1. Enter the IP number for each console.
2. Assign a meaningful name to each console. The program uses these names when displaying data to users. It uses them in certain situations where an IP is provided by Avtec.

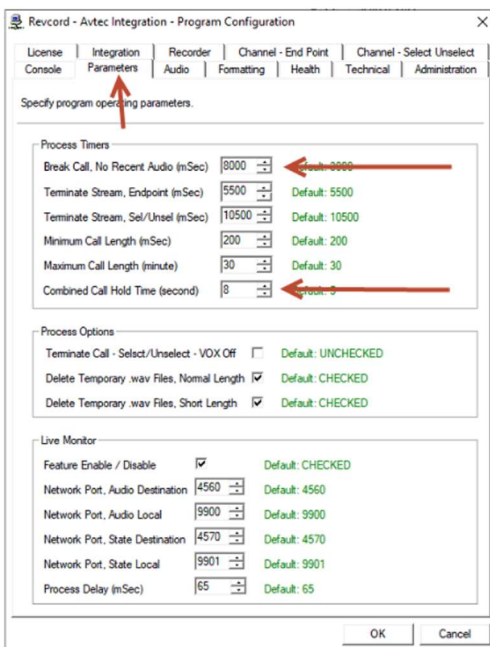


Revcord Configuration: Step 6

Select the “Parameters” tab.

Most end-customers use the default setting except for the following:

1. Set the “Break Call, No Recent Audio” field to “8000”.
2. Set the “Combined Call Hold Time” field to “8”.



OPERATION VERIFICATION

After the entire installation procedure has been performed, contact the Revcord Support Department. Revcord will remote to the Revcord recorder and verify the connectivity between the recorder and the AVTEC VPGate.

Sometimes on-site personnel may need to aid in the connectivity verification process. Therefore, it is best for on-site personnel to remain on-site until proper operation is verified.