

REVCORD

REVCORD AIS CUSTOMER CONFIGURATION MANUAL

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REVCORD AIS – OVERVIEW

Motorola supplies an interface used by the voice logging industry to record Motorola radio systems. The AIS, Archiving Interface Server, is an interface that runs on a Motorola provided server computer called the "AIS Server". This computer is installed at the main radio site or at any trunked transmit (antenna tower) site. In addition to the Motorola installed software, Revcord installs an integration program on the AIS server. The AIS server is a secure computer located inside the Motorola switch/firewall.

The Revcord recorder server is located outside the Motorola switch/firewall and can be located anywhere on the end-customer's network that network connectivity allows. The same Revcord recorder can be used simultaneously to record AIS calls as well as phone calls and other recorded calls. Network traffic occurs between the Revcord recorder, the AIS server, and other parts of the Motorola system.

The Motorola switch/firewall must be programmed to pass network traffic for specific network ports. The Motorola engineer will program the switch/firewall appropriately.

Motorola License

Motorola licensing is identical for all recorder vendors. In addition to purchasing the AIS server computer from Motorola, Motorola requires the purchase of an AIS recording license. Typically, the license is purchased from Revcord as part of the recording system. Revcord pays the license fee to Motorola prior to Recorder installation. Please contact Revcord for license pricing.

Radio System Calls

A single AIS recorder can support the recording of many different talkgroups and conventional channels. Any talkgroup or conventional channel can be recorded without restriction. On the Revcord recorder, each radio channel is a recorder



channel. Revcord licensing limits the number of Recorded AIS channels to the number purchased from Revcord. Additional channels may be purchased at any time.

Revcord fully supports recording secure (encrypted) radio calls. The Motorola system supplies all audio to the recorder in clear (unencrypted) format. The audio recorded is the exact same audio received and used by Motorola MCC7500 consoles.



DESCRIPTION

This document describes the on-site installation of Revcord-provided AIS Integration software on the Motorola AIS Server computer. If problems occur in this procedure, contact Revcord Support at 281-404-7040.

Networking Configuration

Prior to Revcord software installation:

Network ports must be opened through routers and firewalls between the secure Motorola system and the Revcord voice recorder computer. A Motorola engineer will configure the Motorola network equipment as necessary. The specific network port numbers shall be selected as suitable to the End-User's network. Revcord is configurable to use any specific network port numbers.

1. One TCP Port

One two-way TCP port is needed. Revcord recommends using port 18000.

2. <u>Multiple UDP Ports</u>

Many outbound UDP ports are needed. Specifically, one outbound port is needed per recorded Talkgroup or Conventional Channel. Revcord recommends using the port 18001 through 18200. Revcord recommends opening a larger range of ports to accommodate future expansion of recorded Talkgroups and/or Conventional Channels.



MOTOROLA RADIO SYSTEM PARAMETERS

Prior to Revcord software installation, Revcord needs several Motorola radio system parameters.

1. Motorola Radio System User and Password.

The Revcord system requires its own Motorola system User Name and Password. In the Motorola system, it is configured in a manner similar to a Motorola Console User. The Revcord User must be authorized for the Talkgroups and Conventional Channels that are to be recorded. NOTE: When used by a recorder on AIS system, an actual Password is required.

2. The IP address of the Motorola AIS computer

Revcord needs the IP of the Motorola provided AIS computer as viewed from the Revcord recorder. If switch/router translations are performed, provide the IP as seen from the Revcord recorder.

3. Talkgroup or Conventional Channel list

A list must be provided of every Talkgroup and Conventional Channel that is to be recorded.

For each talk Channel, provide:

- a. Display Name to be displayed in the recorder (recorder Channel name).
- b. Motorola Information.
 - i. **Talkgroup** For each Talkgroup, provide the Talkgroup ID number or the Motorola system Talkgroup label (exact spelling).
 - ii. <u>Conventional Channel</u> For each Conventional Channel, provide the Motorola system Channel label (exact spelling).



4. Email Server Information

The Revcord AIS system automatically generates alert email messages when problems occur. Revcord utilizes Microsoft365 email service. If usage is blocked or if the End- User prefers a different email system be used, Revcord needs alternate email server parameters.

FILES USED DURING INSTALLATION

Revcord software must be installed on the Motorola AIS Server computer. Because of security restrictions, remote access to AIS Server computer is not permitted. The installation must be done on site by on-site personnel.

- Revcord recommends that the Revcord provided install file be transferred to the Motorola AIS Server using a USB memory stick. The install file name is: setup_AisServer.exe
- 2. On the Motorola AIS Server, create a directory called: c:\Revcord
- 3. Copy the file setup_AisServer.exe, to this directory.

INSTALLATION PROCEDURE

- 1. Install Program files.
 - a. From the "c:\Revcord" directory, run the installation program
 "setup_AisServer.exe". Answer any questions and click "Next" and
 "Install" as needed.
- 2. In the Windows Start menu, find the entry "AIS Server". Run this program.
 - a. The "AIS Server" Program will start, but it will not display a window.
 Instead an icon will appear in the system tray (lower right corner of the screen, near the clock). The icon is a "computer on a network". See picture:



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 b. Sometimes the Windows operating system hides the system tray icon. The system tray configuration must be changed to make the icon visible on the system tray. Open the system tray configuration window by left clicking on the two up arrows on the left side of the system tray. See picture below.



c. A new window will open. See picture below.

Select w	hich icons and notifications appear on the taskbar			
If you choo notification	ne to hide icons and notifications, you won't be notified about ch area on the taskbar.	anges or updates. To view hidden icons	at any time, dick the arrow next to the	
Ice	05	Behaviors		-
3	Voice recorder AIS integration client interface. Display. AIS Client	Show icon and notifications	2	
1	Voice recorder AIS integration server program. Display. AIS Server	Show icon and notifications		I.
9	TeamViewer 10 TeamViewer - 894487302	Show icon and notifications	2	
T	Windows system tray interface to CrashPlan 94 (102.4 MB) files to backup Next backup in 6 minutes	Show icon and notifications	2	L
9	Oropbox Dropbox 3161 Up to date	Show icon and notifications	2	•
Turn syster	n icons on or off			
Restore de	fault icon behaviors			

In the scroll area, find the entry "Voice recorder AIS Integration Server Program. Display. AIS Server". To the right of that entry, select "Show icon and notifications". Once this change is made, the icon should automatically appear in the system tray. Click OK to exit the window.

3. In the system tray, right click on the system tray icon (gray computer). A menu should appear similar to that shown below.





- a. In the menu, select "Configuration..." A new window will appear.
- b. Select the "Integration Data" tab. See picture below.

AIS Server - Program Configuration	x
License Integration Data Health Technical Administration Specify AIS integration configuration.	
User Name Test Password	
Client/Server TCP Communication Port 20000 🛨 Supported Vocoders (Codecs) g728 (Conventional Calls) 🔽 P25 (Phase 1 and Phase 2) 🔽	
	K Cancel

- c. Follow the steps below.
 - Enter the Motorola AIS Interface User Name and Password. The User Name and Password is configured in a manner similar to a Motorola Console User. Like a Console User, the Revcord User must be authorized for the desired



Talkgroups and Conventional Channels. For use on the AIS system, an actual Password is required.

- ii. Enter the TCP Communications Port. This is the TCP port used to transfer data between the Server and the Client.
- iii. Make sure that "g728" and "P25" check boxes are both CHECKED.
- D. Select the "Health" tab. See picture below.



- i. Make sure all checkboxes are UNCHECKED (no check marks).
- ii. Exit the configuration window by clicking OK at the bottom of the window.
- 4. Add the Revcord directory to the PATH system variable.
 - At the bottom left of the window click on the 'O" symbol next to the "Start" button. This will open the search entry area. In the picture, see the BOTTOM red arrow.
 - b. In the search area, search for "env". This will display the environmental window. In picture, see MIDDLE red arrow.
 - c. Open the environmental variables. In picture, see TOP red arrow.





d. A new window will open. Click the "Environmental Variables" button See picture below.

Computer Name	Hardware	Advanced	System Protection	Remote	
You must be lo	gged on as	an Administra	tor to make most of t	hese change	s.
Performance					
Visual effects	, processor s	scheduling, m	emory usage, and vi	tual memory	
			-		
				Settings	
Llear Profiles					
Dealater anti-					
Desktop setti	ngs related to	o your sign in			
				Settinge	
				Jettings	
Startup and F	Recovery				
System startu	p, system fai	lure, and deb	ugging information		
				Settings	
			Environme	ent Variables.	

www.Revcord.com



 A new window will open. In the bottom area clock on the word "Path" to highlight the line. Note: The area may need to be scrolled to see the word "Path". See picture below.

After "Path" is highlighted, click the "Edit..." button. See picture below.

Variable	Value	
OneDrive	C:\Users\Revcord\OneDrive	
Path	C:\Users\Revcord\AppData\Local\Microsoft\WindowsApps;	
TEMP	C:\Users\Revcord\AppData\Local\Temp	
TMP	C:\Users\Revcord\AppData\Local\Temp	
	New Edit Delete	
/stem variables	New Edit Delete	
rstem variables Variable	Value	
/stem variables Variable ComSpec	Value C\Windows\system32\cmd.exe	
vstem variables Variable ComSpec DriverData	New Edit Delete Value C(Windows/system32):Omer/DriveData	
rstem variables Variable ComSpec DriverData NUMPEROF_PROCESSORS	Velue Edit Delete Value CU/Windows/system32/cmd.ee CU/Windows/system32/Drivers/Driver0ata 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
rstem variables Variable ComSpec DriverData NUM FS/OF_PROCESSORS OS	New Edit Delete	
rstem variables Variable ComSpec DriverData NUMERDOF_PROCESSORS OS Path Datuert	New Edit Delete Value C/Windows/system32/cmd.exe C/Windows/system32/cm/exe C/Windows/system32/cm/exe C/Windows/system32/c/Windows/System32/Windows/System32/cm/exe C/Windows/System32/cm/exe C/Windows/System32/cm/exe C/Windows/System32/C/Windows/System32/C/Windows/System32/C/Windows/System32/C/Windows/System32/Windows/System32/C/Windows/System32/	
rstem variables Variable ComSpec DriveData NUMBERDOF PROCESSORS OS Path PATHEXT PROCESSOR ARCHITECTURE	New Edit Delete Value C/Windows/system32/cmid.exe C/Windows/system32/cmid.exe C/Windows/system32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/system32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe C/Windows/System32/cmid.exe S/Windows/System32/cmid.exe S/Windows/System32/cmid.exe AMD6H AMD6H AMD6H AMD6H AMD6H	

f. A new window will open showing all parts of the "Path" environmental variable. See picture below.

%SystemRoot%\system32	New
%SystemRoot%	
%SystemRoot%\System32\Wbem	Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SYSTEMROOT%\System32\OpenSSH\	Browse
C:\Program Files (x86)\Microsoft SQL Server\Client SDK\ODBC\110\To	
C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn\	Delete
C:\Program Files (x86)\Microsoft SQL Server\120\DTS\Binn\	
C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn\Manage	
	Move Up
	Move Down
	Edit text

g. In this window click the "New" button to enable entry of additional text. See picture below.



%SystemRoot%\system32	New
%SystemRoot%	
%SystemRoot%\System32\Wbem	Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SYSTEMROOT%\System32\OpenSSH\	Browse
C:\Program Files (x86)\Microsoft SQL Server\Client SDK\ODBC\110\To	
C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn\	Delete
C:\Program Files (x86)\Microsoft SQL Server\120\DTS\Binn\	
C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn\Manage	
	Move Up
^	Move Down
	Edit text
1	

New Entry 1:

In the entry area, add the Revcord path text: c:\Program Files (x86)\Revcord\AisServer

NOTE: Exactly two "space" characters.

You need to specify the path were the Revcord software was installed. **NOTE**: The Revcord path may vary depending on the version of the Windows operating system. You need to specify the path were the Revcord software was installed

New Entry 2:

Repeat the process to enter a second new entry. In the entry area, add the Motorola path text:

c:\Program Files (x86)\Motorola MCC 7500\bin\

NOTE: Exactly four "space" characters.



REVCORD AIS – DECODERS

Hardware Installation – DVSI-P25 Decoder

Revcord uses hardware decoder devices manufactured by DVSI, Digital Voice Systems Inc. These devices aid in the decoding of audio received from the Motorola radio system. DVSI manufactures several different device models.

Decoder: The USB-3012 decoder is a small blue colored box shaped metal device. The device uses a supplied USB cord and a supplied power transformer. Plug the supplied USB cord into the decoder device. Plug the other end into any USB port on the Revcord recorder computer. Plug the supplied power transformer cord into the decoder device and plug the electrical plug into an electrical outlet.

DVSI Decoder – USB-3012



DVSI Decoder - Rear view showing cable connections.





Driver Installation

Typically Windows will automatically install drivers to support the decoders. If necessary, Revcord personnel can remotely assist in making sure the drivers load properly.

AIS SERVER – STARTING THE PROGRAM

 From the Windows "Start" menu or from the Windows Start menu's "Revcord" directory, select "Revcord Programs" or "Program Monitor". A new window will appear. See picture below.

evcord Installed	Service Programs		Close
Program: AIS Se	erver		
Current Status	Program Not Installed	Install	

- In the "Program Monitor" window, select the area labeled "Program: AIS Server". Click the "Install" button. This process installs the "service" Program and should only take a few seconds. Answer any questions that may appear.
- After install is complete, verify that the "Startup Method" is set to"Automatic at Boot up". See picture below:

Program Monitor		
Revcord Installed Service	a Programs	Close
Program: AIS Server		
Current Status STC	IPPED. Start	
Startup Method Aut	omatic at Bootup 👻	

- 4. Press the "Start" button to start the Program. In a few seconds the window will indicate "RUNNING".
- 5. No other work is necessary

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Normally, the AIS Server Program runs as a background task. It's a "service". The Program will start automatically every time the computer is booted. Normally, there is no need for an operator to do anything and there is no need to logon in order for the Revcord Program to operate. With this Program, everything is automatic. **NOTE**: If needed, Revcord's Program can be started and stopped using the "Program Monitor" Program. It can also be started and stopped using the Windows operating system's "Services" applet.

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 AIS Server.

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.