How to Setup a Wi-Fi Stream (Feed) on the Uniden BCD536HP and Access it Remotely Using ProScan Remote Scanner Over IP - Step by Step Instructions

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The Wi-Fi functionality of the BCD536HP in conjunction with the Remote Scanner Over IP (RSOIP) feature in ProScan allows you to stream (feed) audio & data wirelessly and listen and/or remotely control the scanner inside and outside your home network using a Server-Client model. The scanner side is ProScan running in Server mode and the remote side is the ProScan Client (full version for remote control or the free client for monitor only) running on a Windows PC. Please refer to the ProScan manual for a more detailed description of RSOIP. The manual can be found under Support in the top menu bar in ProScan.

NOTE: The instructions below work with the author's wireless router, ISP & home network setup. The respective configuration of these items may vary for others. It is also assumed readers have a basic understanding of PC's, wireless routers, networking terminology, the Uniden BCD536HP scanner/wireless dongle (latest firmware installed) and ProScan software. Your mileage may vary and the author assumes no responsibility for issues that may arise when following these instructions. They are offered as a guide only.

Section 1: Uniden BCD536HP Wi-Fi Configuration

1. With the BCD536HP powered on and the Wi-Fi dongle attached, push the MENU button on the BCD536HP and scroll to "Wi-Fi" Setup. Press E on the keypad or the FUNC knob.

2. In Wi-Fi Setup, scroll down to "Set Connection" and press E or the FUNC knob

3. Highlight "Infrastructure Mode" (see image below) and press E or the FUNC knob.

4. The BCD536 will now look for available wireless networks (see image below).

5. Highlight the wireless network you want to establish a connection with (would typically be your own home network SSID name). You will be asked to enter the password you use on your home wireless network (using the keypad on the BCD536HP).

6. Once you have successfully established a connection to your home wireless network, scroll to "Show Wi-Fi Information" (see image below) and press E or the FUNC knob.

7. You will now see 4 items listed on the BCD536HP LCD window. The second item is the IP address that has been assigned to the BCD536HP by your home router. **Write this number down as it will be needed later when setting up the Wi-Fi stream (feed) in ProScan.**

   NOTE: It is a good idea to "reserve" the IP address assigned to the BCD536HP so that it always retains the same IP number, even after turning off the scanner or rebooting your router. Refer to your router's user guide documentation to see how this can be configured.

Section 2: ProScan Audio Configuration

8. Open the latest version of ProScan software (30-Day Trial or Licensed Copy).

9. On the top menu bar in ProScan, click on Scanner Type and select BCD536HP from the drop down and click OK.

10. Click on the Audio Control tab in ProScan and then click on the Remote Scanner Over IP tab on the row below that (see image below).

11. Click on the drop-down arrow for Input Sound Device and select URL (see image below).
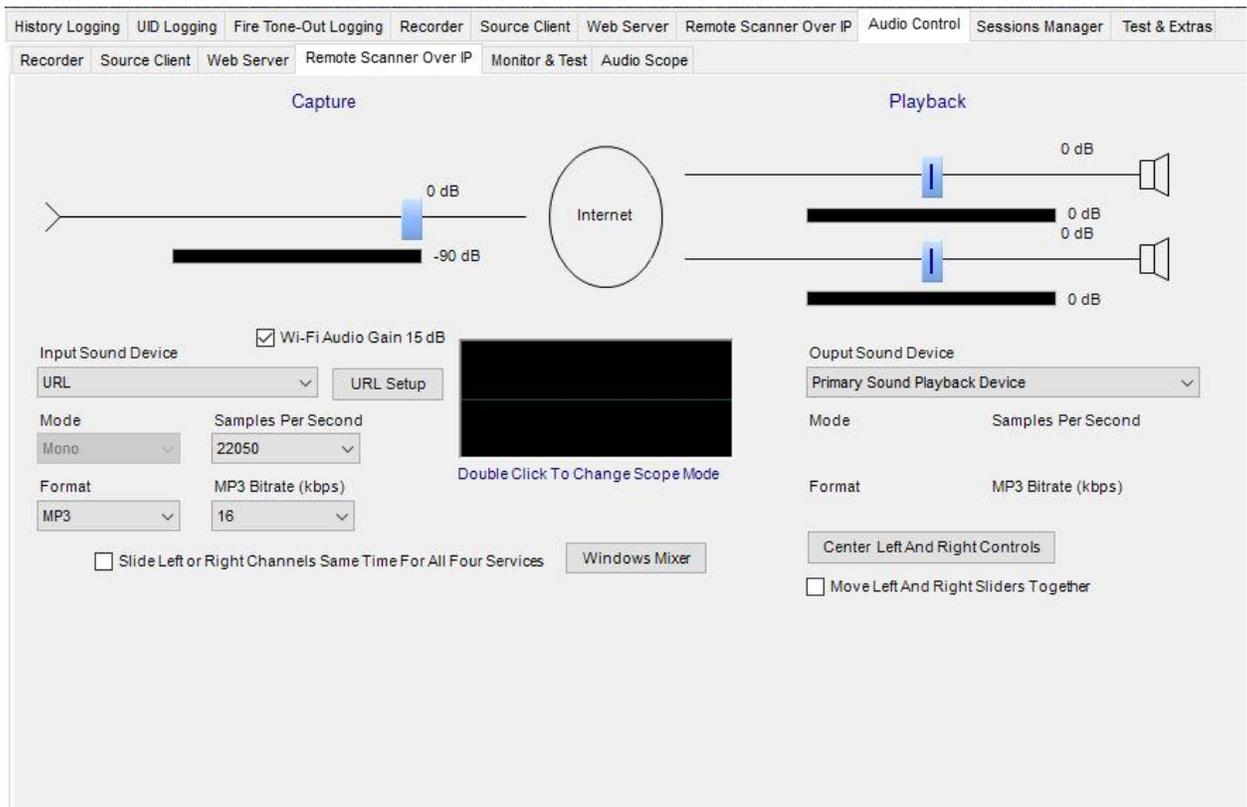
NOTE: This will allow the audio coming from the BCD536HP to be sent with your stream (feed) without having to use any physical audio cable connection between the scanner and your PC. The audio quality using the Wi-Fi method above is superior.

12. Leave the check mark in Wi-Fi Audio Gain and click on the URL Setup button. If you see a RED highlighted TCP Not Connected & UDP Not Connected (see image below), the IP address shown in the URL box is NOT correct. That IP address must match the IP number assigned to the Uniden BCD536HP by your home router. That is the number you wrote down in Section 1, step 7.

URL Audio Setup & Monitor

URL

rtsp://192.168.1.8/au:scanner.au

Usage: rtsp://192.168.1.5/au:scanner.au

Format: RTSP / RTP G.711 MU Law   Samples / Second: 8000

TCP Scanner Port	554	Time Elapsed	00:00:00
TCP Computer Port		Bytes TX	0
UDP Scanner Port		Bytes RX	0
UDP Computer Port		Packet Loss	0.00 %

TCP Not Connected
UDP Not Connected   Reconnect   Close
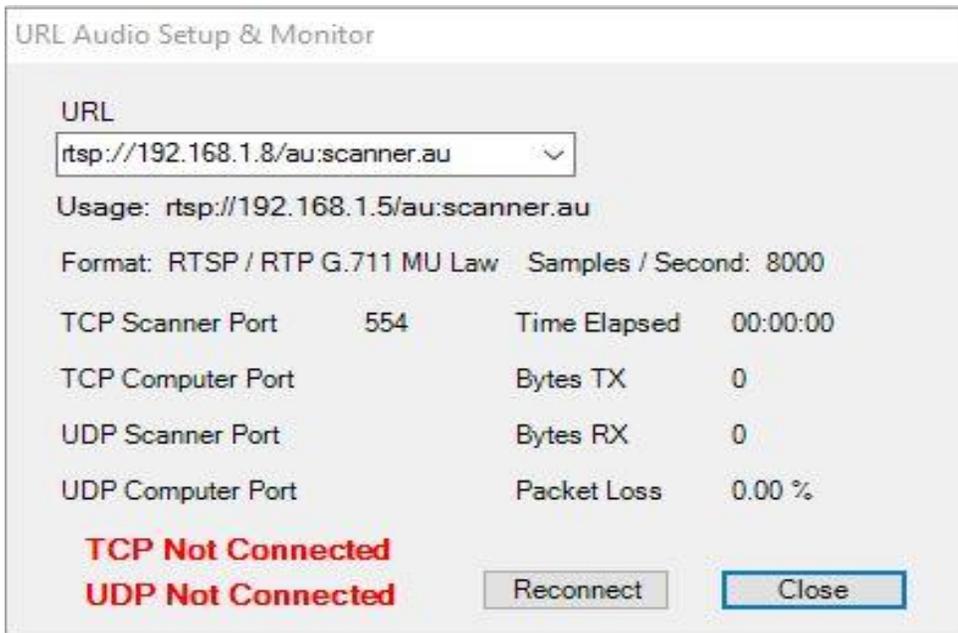
13. Change the IP number in the URL box to match the IP assigned to your BCD536HP and be careful not change any other part of the URL and do not add any spaces. Click on the Reconnect button and you should now see something similar to the image below.

URL Audio Setup & Monitor

URL

rtsp://192.168.1.24/au:scanner.au

Usage: rtsp://192.168.1.5/au:scanner.au

Format: RTSP / RTP G.711 MU Law   Samples / Second: 8000

TCP Scanner Port	554	Time Elapsed	00:00:27
TCP Computer Port	49647	Bytes TX	287
UDP Scanner Port	56002	Bytes RX	227,203
UDP Computer Port	53600	Packet Loss	0.00 %

Reconnect   Close
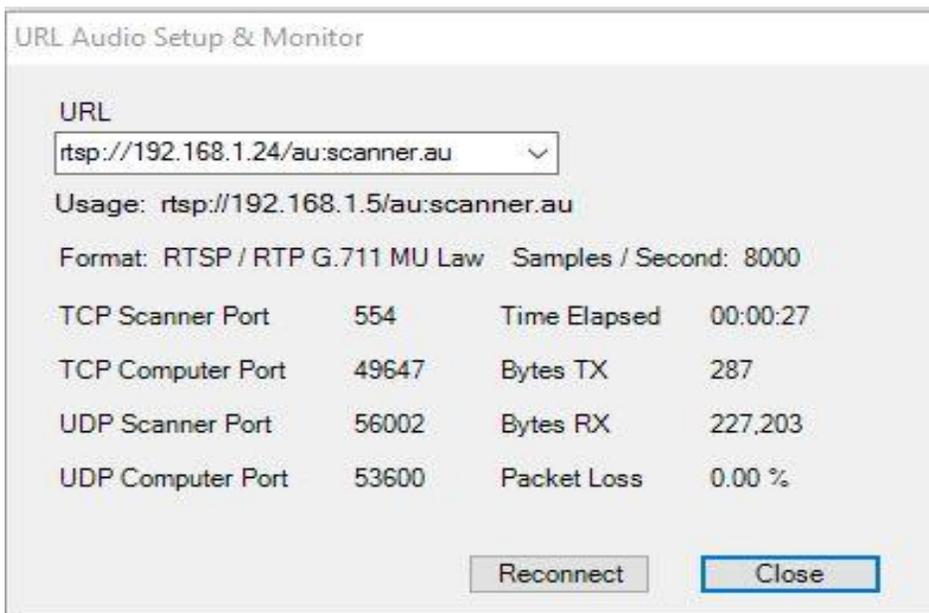
14. Assuming the above step was successful and your BCD536HP Wi-Fi connection is established & working, you are now ready to configure the data portion of your stream (feed).

Section 3: ProScan Data Configuration

15. On the top menu bar in ProScan, click on Comm Port. When the Comm Port Settings screen appears, click on the drop-down arrow for port and choose URL (see image below).
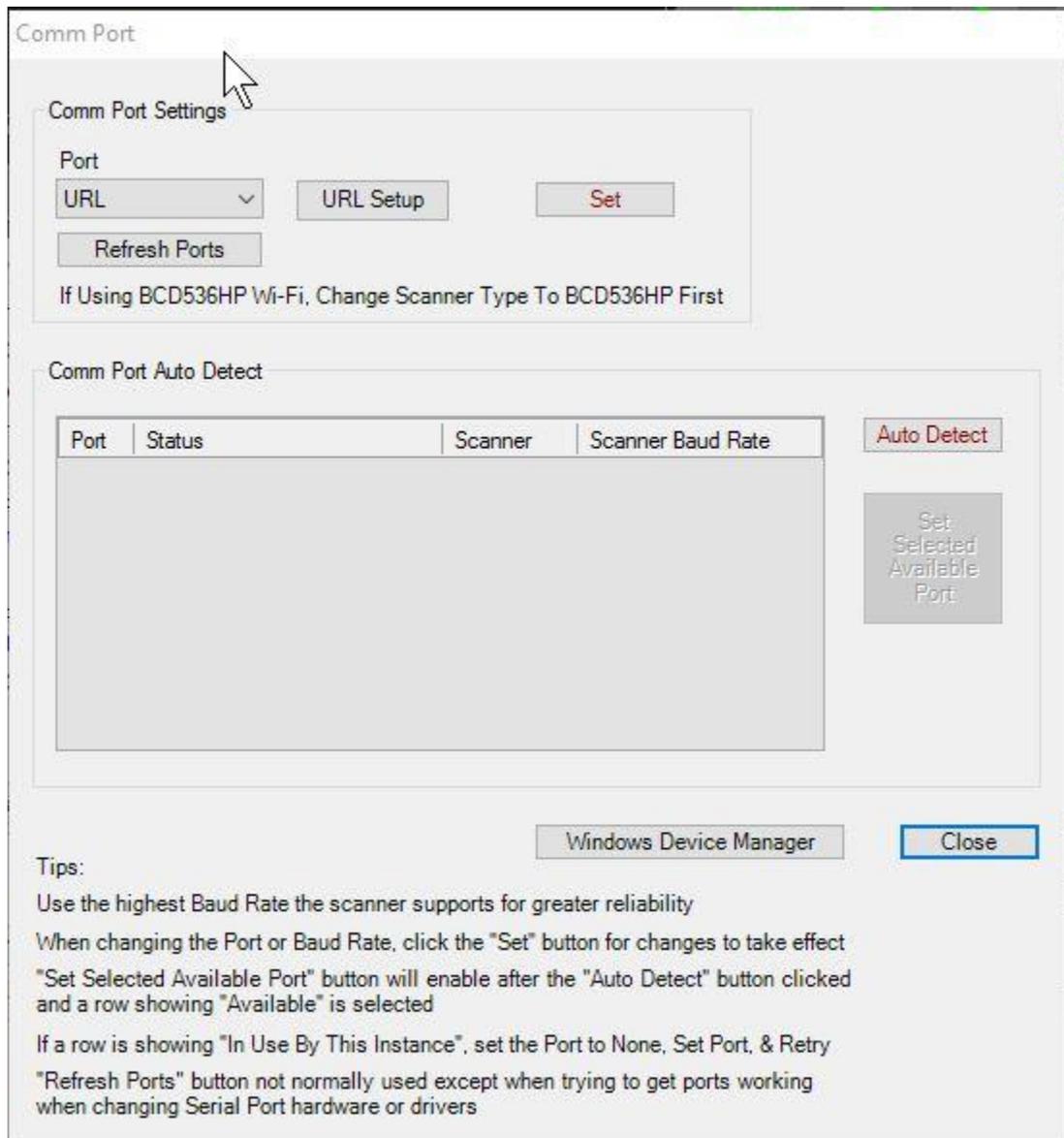
16. Click on the URL Setup button. If you see a RED highlighted UDP Not Connected (see image below), the IP address shown in the URL box is NOT correct. That IP address must match the IP number assigned to the Uniden BCD536HP by your home router. That is the number you wrote down in Section 1, step 7.

URL Comm Port Setup & Monitor

URL
192.168.1.8

Usage: 192.168.1.5

UDP Scanner Port	50536	Time Elapsed	00:00:00
UDP Computer Port	62985	Bytes TX	1,020
		Bytes RX	0

UDP Not Connected   Reconnect   Close
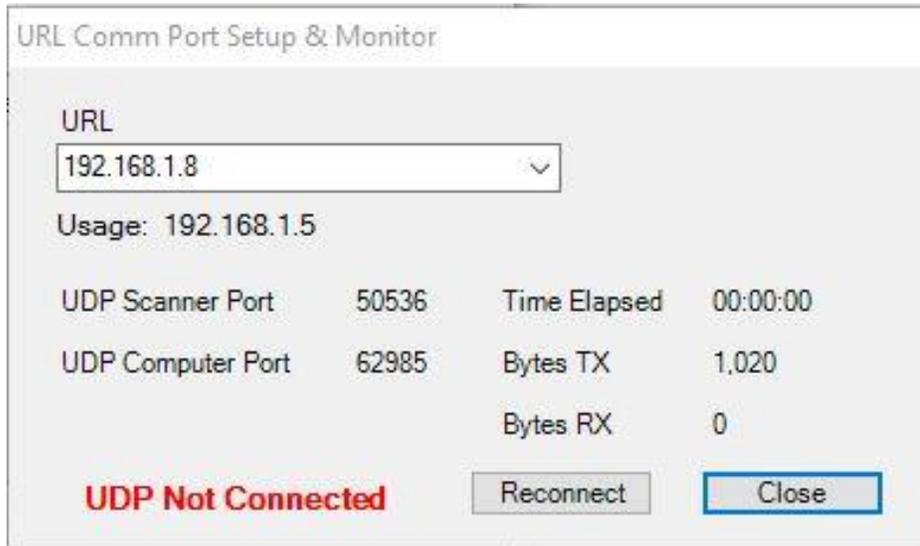
17. Change the IP number in the URL box to match the IP assigned to your BCD536HP. Click on the Reconnect button and you should now see something similar to the image below.

URL Comm Port Setup & Monitor

URL
192.168.1.24

Usage: 192.168.1.5

UDP Scanner Port	50536	Time Elapsed	00:01:35
UDP Computer Port	57409	Bytes TX	23,280
		Bytes RX	1,163,281

Reconnect   Close
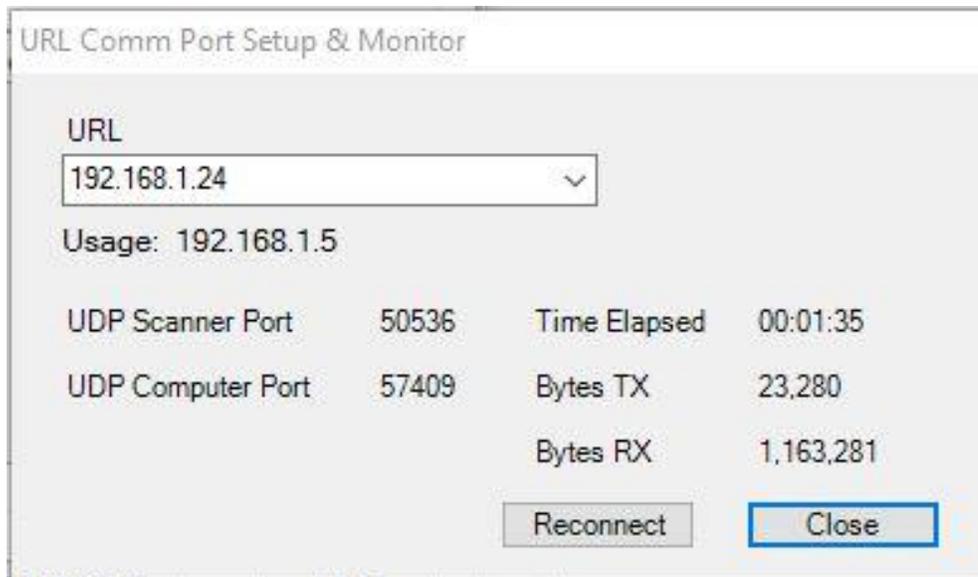
Section 4: <u>ProScan RSOIP Configuration – Server Side</u>

18. With a full version of ProScan running on a PC in your home network, click on the Remote Server Over IP tab (see image below). There are two modes of operation (Server and Client). Make sure Server is highlighted.

   ➢ The server port defaults to 5000. You can leave this number or change it to something else. It is recommended to NOT use port 80. **Write the port number down. It will be needed later**

   ➢ The password box is used when you want to allow control of the scanner by a client who is connected via a full version of ProScan on another PC (yourself included). **Write the password down. It will be needed later**

   ➢ Adjust the maximum number of clients you want to allow access to your server (stream). They will typically be using the free ProScan Client software, which is a stripped-down version for connecting in Monitor mode only. Remote control can only be done when the client is using a full version of ProScan (with the password you used in bullet #2 above)

   ➢ If you want your stream (feed) information published so that it appears in the ProScan Client server list for others to see, check the Publish Server box and fill-in the related text boxes below that (author's examples are shown in the image below)

   ➢ Click on the Get My IP button and the outside IP address provided by your ISP will show in the Published Server text box. This number will be visible to anyone using the ProScan Client. Should you prefer not to have this number shown, you can use a DNS service like No-IP to mask the number with a name instead (author's example below). In either case, this box must be filled in to publish.

      NOTE: Instructions for signing up for a DNS account and how to configure that in your home router is not covered here. Google & YouTube will help.

   ➢ If you prefer to make your stream (feed) private, un-check the Publish Server box. You will need to provide the outside IP number and ProScan server port to others directly so they can access it using the ProScan Client (yourself included). **Write down the outside IP number and server port number.**

Tabs: History Logging | UID Logging | Fire Tone-Out Logging | Recorder | Source Client | Web Server | Remote Scanner Over IP | Audio Control | Sessions Manager | Test & Extras

Mode
◉ Server
○ Client   [Start]

Client Connections   Total Connections 0

Time Connected	IP Address	Port	Type

Server
Server Port: Password (Optional)
[5000]   [********]

Maximum   For Control Clients
Connections   Max Client Connect
[20]   [0]   0 = Disabled
                        1 To 99 Days

☑ Publish Server   [Get My IP]

Published Server IP Addr. Or Name
[ScanBrunswickCountyNC.mynet ▾]

Country   State / Province
[US ▾]   [North Carolina ▾]

County / Region
[Brunswick County ▾]

Published Description
[VIPER - County Police, Fire & EMS]

[Server Actions]   [Hot Event]

Time	Messages

19. Whether you are publishing your server information like the above or doing a private stream (feed), click on the Start button when you are ready to activate the RSOIP server.

20. The last thing you need to do before you or other clients can access and/or remotely control the BCD536HP scanner from "outside your home network", is to set-up port forwarding on your home router. Most makes & models of current home routers have a port forwarding feature. Please refer to your router's user guide documentation for instructions.

21. A basic example of port forwarding is provided below using a Netgear router. It is offered for guidance only and no responsibility is assumed by the author for issues that may arise when configuring port forwarding in your own specific router.

   ➢ Login in to the Router's web page (Typically 192.168.1.1 for Netgear)
   ➢ Go to Advanced / Advanced Setup
   ➢ Go to Port Forwarding/Port Triggering
   ➢ Select the Port Forwarding Radio Button
   ➢ Click Add Custom Service
   ➢ In the Service Name box type in ProScan RSOIP (for example)

> ➢ In the Protocol drop down, choose TCP
> ➢ In the External Port Range box, type in the same port number you choose during ProScan RSOIP configuration (see section 4, step 18, bullet 1)
> ➢ Use the exact same port number for the Internal Port Range
> ➢ For the internal IP address, use the IP number for the PC on your home network that you have ProScan Server running on. **NOTE: You click on the Get My IP button that is located on the bottom right of the Web Server tab in ProScan to get this number quickly. It will show there as "Local".**
> ➢ Save and/or apply these changes in your router

Section 5: ProScan RSOIP Connection – Client Side

22. With the RSOIP Server running and port forwarding properly configured, anyone using the free ProScan Client should be able to connect and listen to your BCD536HP Wi-Fi stream (feed) in "Monitor Only" mode. After clicking on the Update button, a list of published servers will appear. The client would then click on the name of a server, followed by Start. See the image below and make note of the highlighted published server name that matches the author's server configuration above. You will also see a successful client connection message near the bottom. **NOTE: The ProScan Server running on your PC at home will also show the successful client connection. Refer to the ProScan manual for more information on the RSOIP feature.**

23. Anyone using the full version of ProScan (yourself included) can connect, listen to and remote control the scanner using the password you set-up earlier (section 4, step 18, bullet #2). See the image below and make note that the password box is present in the full version (unlike the free Client). The virtual scanner shows the menu being remote controlled.

24. If you chose to stream a "private" feed when you set-up the ProScan Server above, your information would NOT appear in the Published Server list in the ProScan Client. Clients (yourself included) can still access & listen to your private stream (feed) if you provide them with the outside IP address & port number you wrote down (see section 4, step 18, bullet #6). When you or they are in the ProScan Client, manually enter these numbers in the Server IP Address and Server Port boxes respectively. Then click the Start button.