Barix Wowza guide

The Wowza Streaming server allows to distribute incoming audio and video data in different data formats to multiple clients.

This guide shows how to use an audio stream from a Barix encoder device (e.g. Instreamer) as source for the Wowza server, once in the Shoutcast/HTTP mode and in the second chapter in RTP mode.

Using HTTP/Shoutcast mode

Instreamer Configuration

The Barix encoder should have loaded the latest version of the Barix Instreamer firmware.
In theory the Instreamer would work also with his default settings, but it makes sense to check the audio settings of the Instreamer and to adjust for the desired Codec frequency and quality.

The Wowza Server can connect to the Instreamer´s Internet Radio service, the default path is „/xstream" and can be changed in the Instreamer setup (under Streaming) if desired.
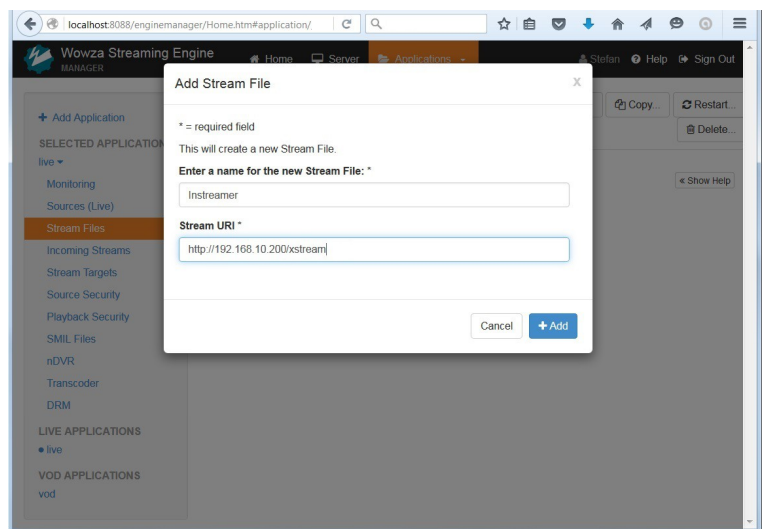
How prepare the Wowza Server

To use the Barix Instreamer as streaming source you have to create in the Wowza Streaming Engine Manager a new application or add a new Stream File on the default application „live".
For that start Wowza Streaming Engine Manager and login, there click on "Applications" in the top menu.
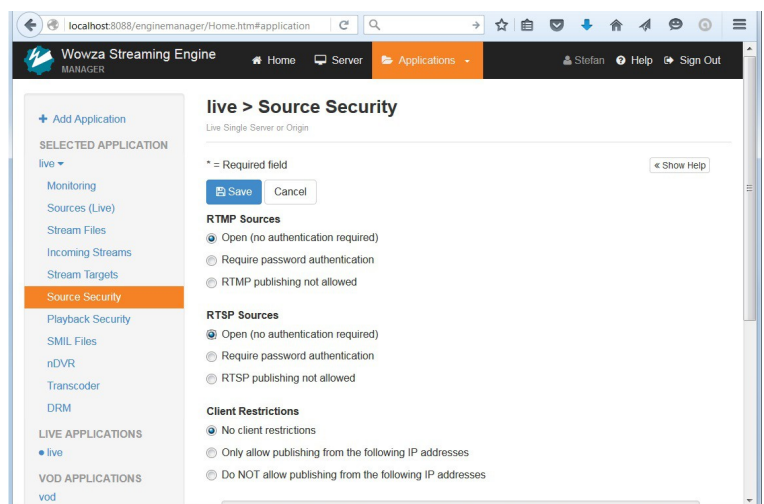Here select from left menu „Stream Files" and add a session description as on the right picture.
As Stream URL define the HTTP Internet radio link of the Barix Instreamer. In the example on the right picture the 192.168.10.200 is the IP address of the Instreamer and the „/xstream" the default path for the Instreamer´s Internet radio service.
Thereafter click add to create the file and close the window.

As next make sure no security settings are preventing the access to your sourcing Instreamer.
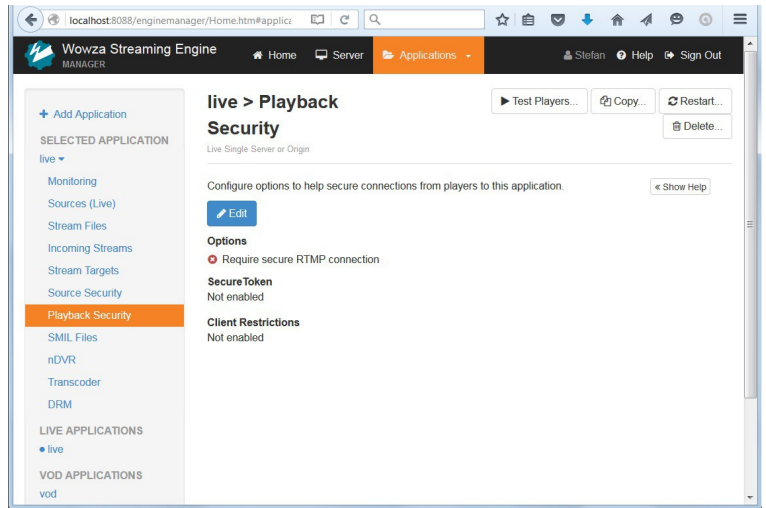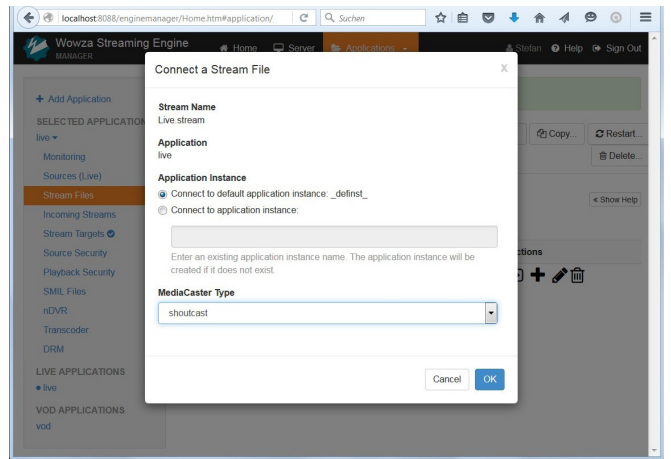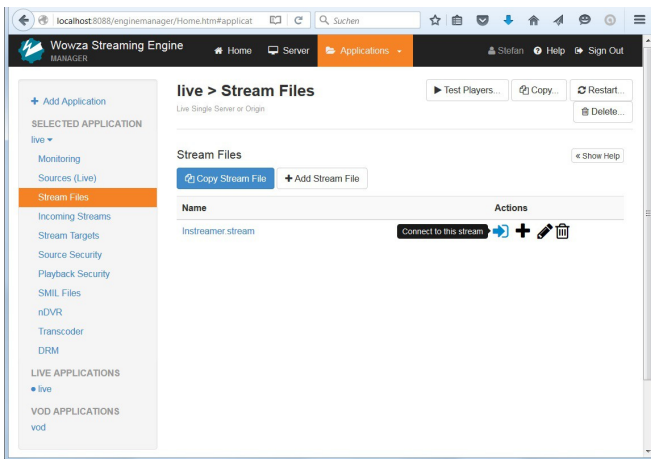This can be defined under Source Security.

Now check the same for the listening clients in the Playback Security, define there:

Client Restrictions – No client restrictions

Note, thereafter you have to restart the application, an according message is displayed on the Wowza Server window.
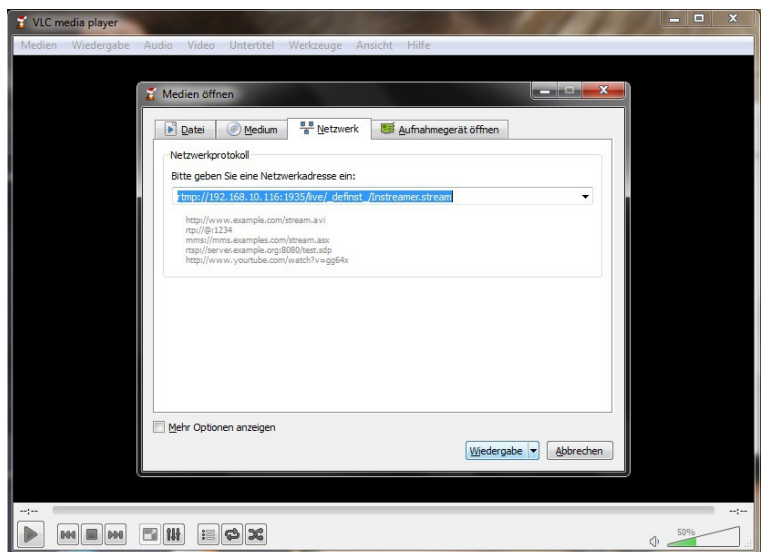
As last start the application, go to „Stream Files" and click the connect item for the „Instreamer.stream" file (see left picture below). A new window opens, here the mountpoint and the Mediacaster Type (protocol) can be defined. Here select the type („shoutcast") from drop down menu (see right picture below).

Listening the stream with a client from the Wowza Server

The default streaming format is the RTMP stream. Barix decoders are not compatible to this stream.
But e.g. the VLC Media Player can be used to listen the stream from the Wowza server.

Using RTP protocol/mode

Instreamer Configuration

The Barix encoder should have loaded the latest version of the Barix Instreamer firmware.
In the STREAMING settings configure the RTP stream to the Wowza server, e.g.: *RTP : 192.168.10.116 : 4884* .
Please check the audio settings of the Instreamer and to adjust for the desired Codec frequency and quality.

The configured port number (here 4884) must fit to the port number used in the mystream.sdp file on the Wowza server, that´s the port number where the Wowza server is listening for the RTP source stream from the Instreamer. Additonally the SDP file contains also codec information, for the SDP file example below configure in the Instreamer setup under AUDIO the MP3 codec with 48 kHz.

How prepare the Wowza Server

For RTP the Wowza server requires a file „mystream.sdp", which contains the description of the RTP session. This file must be located /stored in the Wowza program folder on the following path :

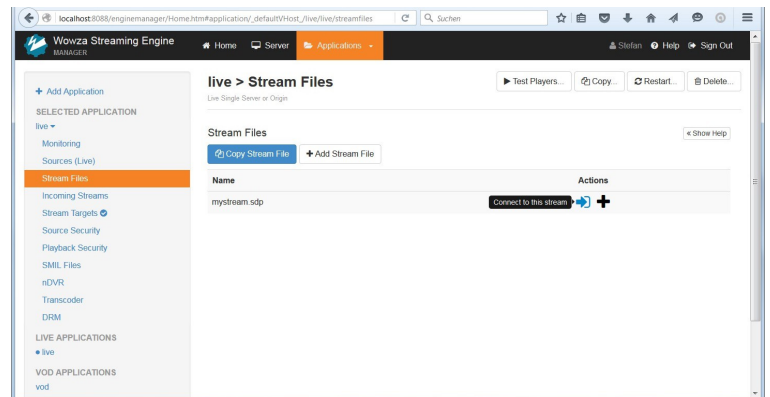*..\Wowza Media Systems\Wowza Streaming Engine 4.2.0\content*

Here is an example for such SDP file, it can be created with any editor (e.g. Notepad):

```
o=- 3347583597 2078764171 IN IP4 127.0.0.1
i=Instreamer RTP Stream
c=IN IP4 192.168.10.200/1
m=audio 4884 RTP/AVP 14
a=rtpmap:14 mpa/48000/2
```

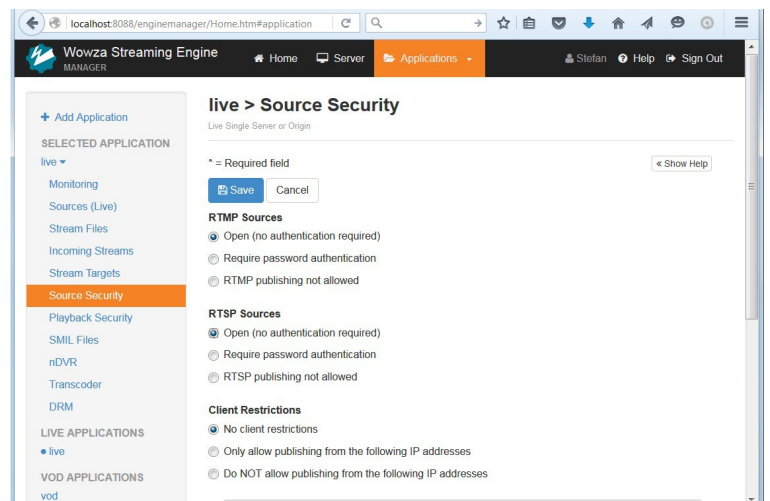This SDP file describes a RTP session in MP3 with 48 kHz on port 4884 incoming from IP address 192.168.10.200.

For that start Wowza Streaming Engine Manager and login, there click on "Applications" in the top menu.
On left menu click „Stream Files" to check the file mystream.sdp is properly detected, when the mystream.sdp file was stored on the right folder (see previous step) then it will be displayed here.

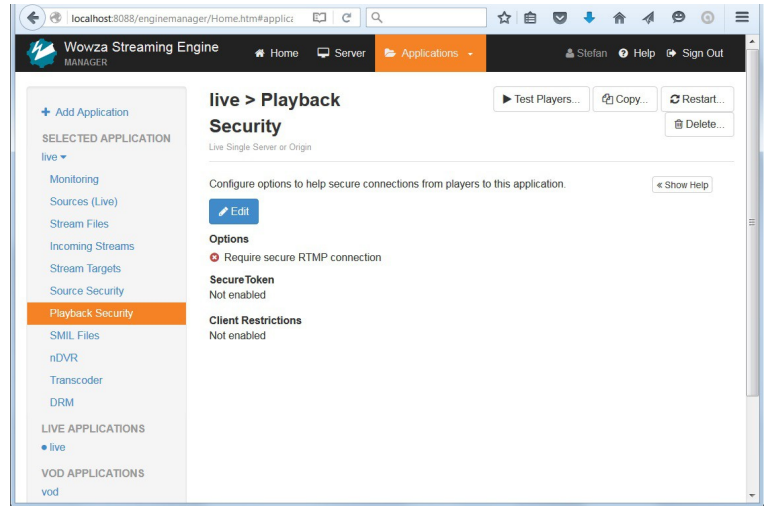As next make sure no security settings are preventing the access from your sourcing Instreamer.
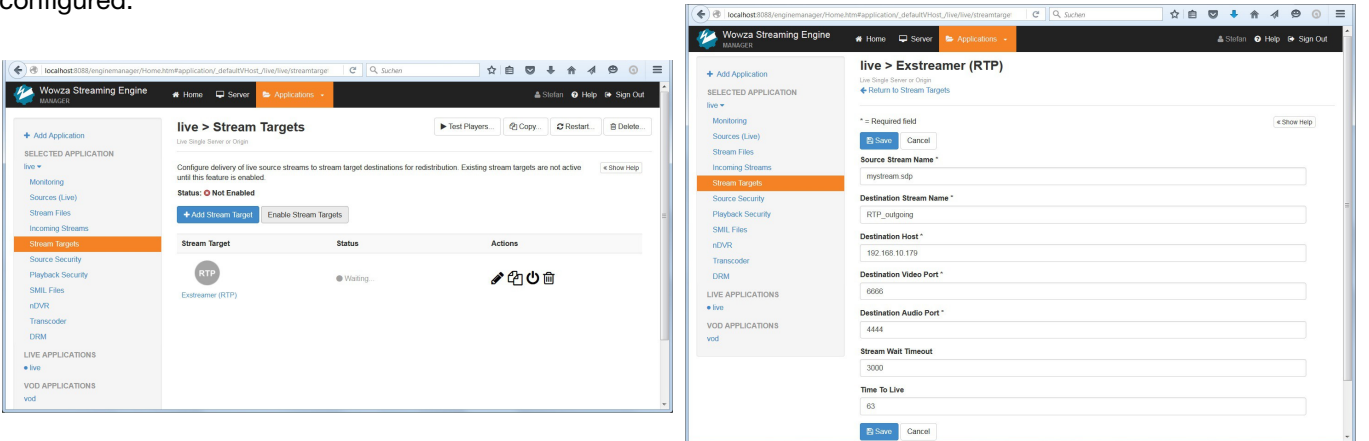This can be defined under Source Security.

Now check the same for the listening clients in the Playback Security, define here:

Client Restrictions – No client restrictions

Note, thereafter you have to restart the application, an according message is displayed on the Wowza Server window.
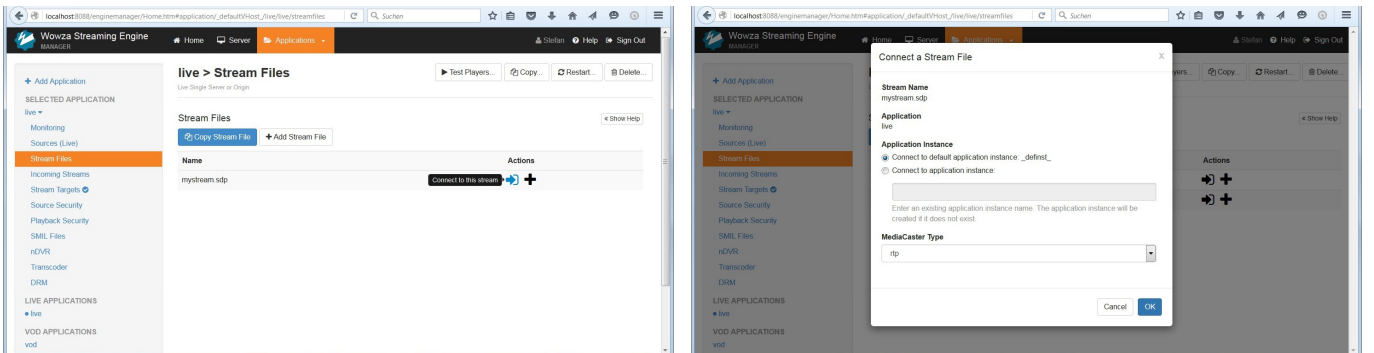

To generate the outgoing RTP stream to the Exstreamer click „Stream Target" from left menu, there select „+ Add Stream Target". As next select „Generic RTP" and confirm the RTP protocol on the next step, finally you have to configure the target stream (as shown on right picture below). The left picture shows when target is configured.

The on the right picture above configured Destination Audio Port (here port number 4444) is port where the RTP stream is sent to, a Barix Exstreamers can also receive this stream. A port number for the video is also required in the setup, here you can use any not used port number.

Now you have to start the configured stream target, for that simply click on the button „Enable Stream Target".

Last step is to start the listening for the incoming Stream. For that click „Stream Files" from left menu and click the connect button. On next opening menu make sure the MediaCaster Type „rtp" is selected (see right picture below) and click OK to start.

Listening the stream with Barix Exstreamer

The Barix Exstreamer can listen the RTP MP3 stream coming from the Wowza server.
Per default the Streaming Client firmware is loaded and mostly used on the Barix Exstreamers, but also other firmwares can be used to listen the Wowza RTP stream, e.g. SIP Client firmware, IC-Paging firmware and some more. The configuration example below is for the Streaming Client firmware:

It works already with factory default setting,
but in the example right the URL2 stream
(the Barix Radio) is removed.
To listen the RTP stream in one of the
URLs must be configured : „rtp://0.0.0.0:4444" .