

Multicast: Explanation of methods used by Antrica Products

2 Methods for multicast

Method 1 ; Using TVMS or TCSXXX DECODER as a client
Method 2: Using RTSP Client decoder like VLC

Method1: In this method TVMS (or TCSxxx Decoder-Normal mode) is the decoder.

Example:

TVMS Decoder IP :192.168.10.99,

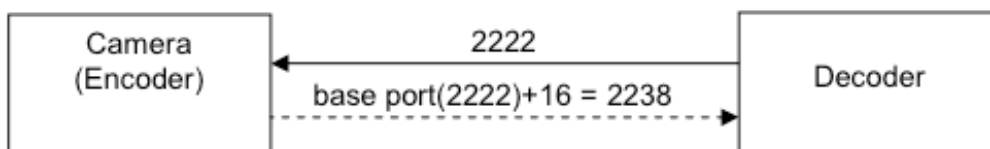
Encoder IP : 192.168.10.100

Encoder Multicast IP address 224.10.0.0 ,

Encoder base port :2222

- a) TVMS sends instruction from TVMS to Encoder via TCP over PORT 2222 to 192.168.10.100 instructing Encoder to start to multicast. This uses VSNM, a proprietary protocol to send this instruction
- b) Encoder will start to send Video plus Audio on the multicast IP address 224.10.0.0 using port 2238 via UDP (base port +16)
- c) TVMS will decode a stream from the Encoder via the multicast IP address 224.10.0.0 and PORT 2238 using UDP packets.
- d) If a second TVMS2 wishes to join the multicast , it will also send a request to join via 192.168.10.100 port 2222. As Encoder is already streaming video + audio on 224.10.0.0 the second TVMS2 will start to decode this stream the same as TVMS.

<Multicast mode>



2222: base port in the camera

Method2: In this method VLC is the decoder using RTSP streaming.

Example:

VLC Decoder PC IP :192.168.10.99,

Encoder IP : 192.168.10.100

Encoder Multicast IP address 224.10.0.0 ,

Encoder base port :2222

Encoder RTSP port : 554

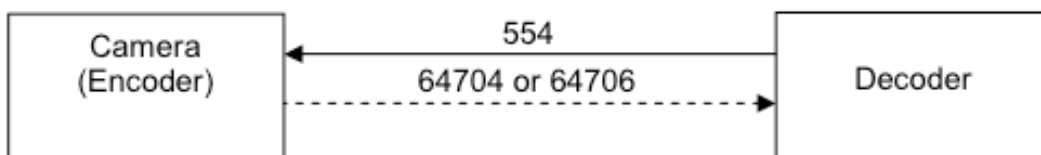
Encoder Multicast port (primary stream) : 64704

Encoder Multicast Port (secondary stream) : 64706

- a) VLC sends instruction to Encoder using 192.168.10.100 via Port 554 using an RTSP protocol, requesting Encoder to multicast!
In VLC you set `rtsp-mcast=1`
- b) Encoder will start to stream Video UDP packets using the multicast IP address 224.10.0.00 via Port 64704 (primary stream) **or** Port 64706 (secondary stream)
- c) identifier for RTSP is; RTSP://224.10.0.0:64704/video1 for primary and RTSP://224.10.0.0:64706/video1s for secondary stream
- d) Multicast stream is delivered via UDP packets
- e) If a second client (VLC decoder 2) wishes to view the multicast stream it will also send an instruction using RTSP and then decode the multicast stream
- f) Video only supported for now.

<Multicast mode>

Only video is supported now.



554: RTSP port in the camera

64704 or 64706: multicast port for video data delivery is dependent on the URL for stream selection

- `rtsp://IP/video1` (primary stream) => 64704
- `rtsp://IP/video1s` (secondary stream) => 64706