

Vivoh Media Relay (VMR) Getting Started Guide

Contents:

- [Solo Mode Quick Start](#)
- [Advanced Options](#)
- [Managed Mode with the Vivoh Relay Manager](#)

```
Vivoh Media Relay 1.3.9

Server status: listening on 8888

Segmenters

Uptime: 18 seconds
```

Vivoh Media Relay in Solo Mode

```
Vivoh Media Relay 1.3.9

Server status: listening on 8888

Poll Server: http://localhost:8080/all.json
JSON: {"on":true,"programs":[{"url":"rtp://239.0.0.1:1234","type":"pull","on":true,"programId":1570963331436}, {"url":"rtp://239.0.0.2:1234","type":"pull","on":true,"programId":1570963509296}], "redirect":false}

Segmenters
rtp://239.0.0.1:1234: ON
rtp://239.0.0.2:1234: ON

Sun Oct 13 2019 07:07:47 GMT-0400 (EDT): Poll server request successful (7)
Sun Oct 13 2019 07:07:07 GMT-0400 (EDT): Connected to multicast stream: rtp://239.0.0.2:1234
Sun Oct 13 2019 07:07:07 GMT-0400 (EDT): Connected to multicast stream: rtp://239.0.0.1:1234
Sun Oct 13 2019 07:07:07 GMT-0400 (EDT): Poll server request successful (4)
Uptime: 60 seconds
```

Vivoh Media Relay in Managed Mode



Solo Mode Quick Start

Step One: Install the software

- Download the stand alone VMR binary: <https://vivoh.com/products/vmr/>
- If on MacOS or Linux, make the binary executable via "chmod +x"
- Install FFmpeg
 - Windows:
<https://ffmpeg.zeranoe.com/builds/win64/static/ffmpeg-4.2.1-win64-static.zip>
 - MacOS: "brew install ffmpeg" or <https://www.ffmpeg.org/download.html>
 - Linux: "sudo apt install ffmpeg" or <https://www.ffmpeg.org/download.html>
- Note: Customer-specific installers will be created that combine all required elements
- Note: FFmpeg must either be in the same directory as VMR or in the PATH

Step Two: Receive a multicast source

- Use RTP via MPEG_TS with H.264 / AAC and 2s GOPs
- Send video to `rtp://239.0.0.1:1234`
 - OBS: Use the Output (Advanced), Recording, Custom Output, Output to URL
 - FFmpeg: `ffmpeg(.exe) -stream_loop -1 -re -i bunny.mp4 -c:a aac -ar 48000 -b:a 128k -c:v h264 -profile:v main -crf 20 -g 48 -keyint_min 48 -sc_threshold 0 -b:v 2500k -maxrate 2675k -bufsize 3750k -f rtp_mpegts rtp://239.0.0.1:1234`
 - Many other encoders support MPEG_TS output (Wowza, Elemental, Harmonic)

Step Three: Start VMR

- Open a terminal and navigate to the the VMR directory
- Type: `./vivoh-media-relay-(+ OS SPECIFIC EXTENSION)`
- Hit Enter to start and CTRL-C to stop VMR

Step Four: View video in a browser

- <http://localhost:8888/hls.html?s=rtp://239.0.0.1:1234>



Advanced Options

- View direct HLS URL: <http://localhost:8888/index.m3u8?s=rtp://239.0.0.1:1234>
- Set a different port: add the -p switch (eg `./vivoh-media-relay-macos -p 7777`)
- Bind to a specified IP: add the -i switch (eg `./vivoh-media-relay-macos -i 10.10.10.10`)
- Use a different directory for the local video data: add the -d switch (eg `./vivoh-media-relay-macos -d ./temp`)
- Use HTTPS: add the -e switch (eg `./vivoh-media-relay-macos -e` for self-signed certs)
 - -e also takes your certs: 'privatekey.pem,certificate.pem,certrequest.csr'
- Use a different segmenter: add the -s switch (eg `./vivoh-media-relay-macos -s vlc`)
- Log FFmpeg output: add `--ffmpegLogFile=./ffmpeg.log`
- Specify the path to FFmpeg: add `--ffmpegBin=/usr/local/bin/ffmpeg`
- Pass custom transcode switches to FFmpeg: Add `--ffmpegExtras`
 - For example: `--ffmpegExtras='-c:a aac -ar 48000 -b:a 128k -c:v h264 -profile:v main -crf 20 -g 48 -keyint_min 48 -sc_threshold 0 -b:v 2500k -maxrate 2675k -bufsize 3750k -hls_time 4 -hls_flags delete_segments'`



Managed Mode with the Vivoh Relay Manager

Step One: Install the software ([Follow Quick Start Step One](#))

Step Two: Receive a multicast source ([Follow Quick Start Step Two](#))

Step Three: [Install and Configure the Vivoh Relay Manager \(VRM\)](#)

Step Four: Start VMR In Managed Mode

- Open a terminal and navigate to the the VMR directory
- Type: `./vivoh-media-relay-(+ OS SPECIFIC EXTENSION)`
- Add: `-t` switch for polling time in seconds (eg `"-t 5"`)
- Add: `-u` switch for VRM URL (eg `"-u http://localhost:8080/all.json"`)
- Optionally, add the detailed VMR reporting switch `"--systemInformation"`
- Hit Enter to start and CTRL-C to stop VMR

Step Four: View video in a browser

- <http://localhost:8888/pid/PID/hls.html>
- Each Program will list its individual playback URL in the Vivoh Relay Manager