Steps to start RTMP stream

Thursday, 24 March 2022   9:22 AM

1. Follow instructions to download and setup NGINX-RTMP server
   https://www.digitalocean.com/community/tutorials/how-to-set-up-a-video-streaming-server-using-nginx-rtmp-on-ubuntu-20-04

2. Allow port 1935
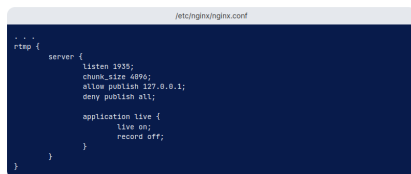   sudo ufw allow 1935/tcp

3. Start Nginx RTMP server
   Either
   sudo systemctl start nginx.service

   Or

   sudo systemctl reload nginx.service

4. *For Info, already setup*
   The Nginx main configuration file is set using
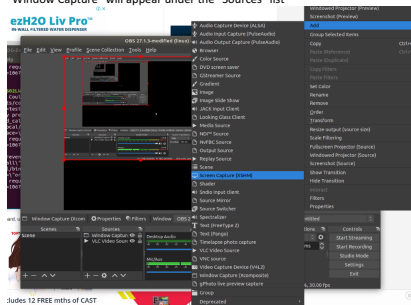
   sudo gedit /etc/nginx/nginx.conf
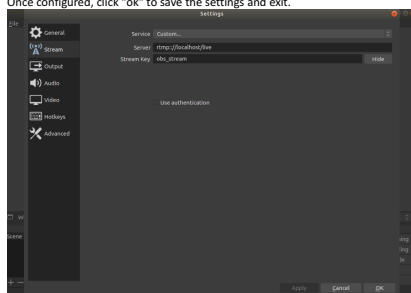

   - listen 1935 means that RTMP will be listening for connections on port 1935, which is standard.
   - Chunk size 4096 means that RTMP will be sending data in 4KB blocks, which is also standard.
   - allow publish 127.0.0.1 and deny publish all mean that the server will only allow video to be published from the same server, to avoid any other users pushing their own streams.
   - application live defines an application block that will be available at the /live URL path.
   - live on enables live mode so that multiple users can connect to your stream concurrently, a baseline assumption of video streaming.
   - record off disables Nginx-RTMP's recording functionality, so that all streams are not separately saved to disk by default.
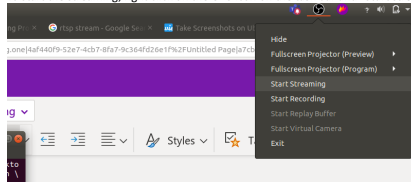
5. Configure video source to send stream to RTMP server.
   For testing purposes, we will use OBS to provide a test stream using screen capture recording. First to add screen recording as a video source to OBS, right click an empty area>Add>Screen Capture.
   "Window Capture" will appear under the "Sources" list

6. To set OBS to stream to our NGINX RTMP server, go to File>Settings>Stream.
   We will use the settings below pictured.
   The server URL is based on what we configured for the NGINX RTMP server.
   Stream Key is set arbitrarily, but we need to take note of stream key to play the stream subsequently.
   Once configured, click "ok" to save the settings and exit.
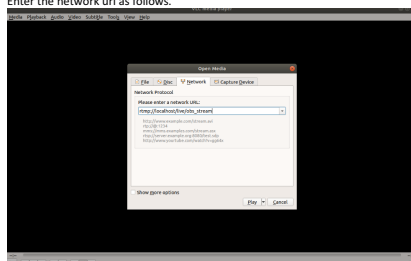

7. To start the streaming, right click on the OBS Icon on the task bar and "Start streaming"

8. We will use VLC player to open and view the RTMP stream. In VLC player go to Media>Open network stream.

   Enter the network url as follows.

9. The stream should start to play.

10. Another possible way to generate a RTMP test stream is using ffmpeg. The command is:

```
ffmpeg -stream_loop -1 -re -i "SampleVideo.mp4" -c:v copy -c:a aac -ar 44100 -ac 1 -f flv rtmp://localhost
/live/stream
```