Basic Requirements:

Computer with wired and wireless connection

FFmpeg installation: <http://www.ffmpeg.org/>

GoPro Hero 3+: <http://gopro.com/>

RTMP server e.g. FMS (<http://www.adobe.com/products/adobe-media-server-family.html>) or CDN ingest point

Overview:

GoPro Hero3 cameras produce HLS streams which are consumed by control apps and their removeable monitor.

It's simple to take this stream and rebroadcast over RTMP by following the instructions below.

Hopefully there are also a lot more interesting use cases for this, but this should provide a starting

point.

Instructions:

1. Turn on WiFi on GoPro.

2. Connect to GoPro from computer over WiFi.

3. Determine IP address of GoPro camera by finding the default gateway for your wireless connection -

this is usually 10.5.5.9 but may differ. Guide for Windows / Mac here:

<http://www.noip.com/support/knowledgebase/finding-your-default-gateway/>. This can be achieved in a

similar way on Linux using the command ifconfig on the command line.

4. Browse to the IP address of the camera on port 8080 to ensure you can connect to it and it is

capable of streaming video over WiFi. You can do this by putting [http://[IP]:8080](http://%5bip%5d:8080/) in a browser window,

where [IP] is the IP of the GoPro camera identified in step 3. You should see a directory listing if

connected successfully.

5. Once confirmed, in the command below replace [IP] for the IP address as above, and replace [RTMP]

with the URL to the entry point for your FMS server/CDN e.g. rtmp://myserver.com/stream/stream\_name.

If authentication is required, apply it as username:password@ after the protocol,

e.g. rtmp://username:password@myserver.com/stream/stream\_name.

ffmpeg -re -i [http://[IP]:8080/live/amba.m3u8](http://%5bip%5d:8080/live/amba.m3u8) -c copy -c:a aac -strict experimental -b:a 96k -ac 2

-ar 44100 -f flv "[RTMP] live=1"

6. Execute the command and verify playback.

Seems like when you use (digest) authenticated URLs it give's some URL parsing errors.

For example when i run:

ffmpeg -re -i <http://10.5.5.9:8080/live/amba.m3u8> -c copy -c:a aac -strict experimental -b:a 96k -ac 2 -ar 44100 -f flv "rtmp://username123:passwordABC@mystreamingserver/live live=1"

I get the error:

Problem accessing the DNS. (addr: username123)

rtmp://username123:passwordABC@mystreamingserver/live live=1: Unknown error occurred

Weird! Cause the documentation says it support authenticated URLs. See: <https://www.ffmpeg.org/ffmpeg-protocols.html#rtmp>

<http://superuser.com/questions/643127/seting-up-iptables-to-forward-multiple-gopro-cameras>

have an interesting problem that involves multiple GoPro cameras. Basically, I need to have the ability to communicate with multiple GoPro cameras via a single network. The challenge is that the cameras operate as a WiFi access point and all have the same IP address once connected (10.5.5.9).

In order to allow my to access all of the cameras via a single network, I'm planning on using a unique WiFi adapter for each camera. This should work well since each camera has a unique SSID. Each WiFi adapter would have a unique address in the 10.5.5.0 subnet. The challenge arrises once more than one of the WiFi adapters connects to a camera and I now have multiple devices with the 10.5.5.9 IP address.

From here, I'm thinking that it may be possible to configure some IPTables rules to enable port forwarding to the specific WiFi interfaces.

<http://forum.allaboutcircuits.com/threads/how-can-i-route-same-ips-to-different-nics.101319/>