

- DHCP
  - I disconnected myself from the wireless network and reconnected to the network to trigger a DHCP Request to be broadcast. The router should then respond with a DHCP ACK, which contains the IP address assigned to the device.
- DNS
  - I flushed the cache of the Firefox browser by deleting it from the settings and attempted to connect to [www.youtube.com](http://www.youtube.com). This should trigger a DNS query to a local DNS router which eventually brings back the IP that's correlated with [www.youtube.com](http://www.youtube.com).
  - In the actual packet capture, there were other queries for websites such as [www.google.com](http://www.google.com), [fonts.googleapis.com](http://fonts.googleapis.com), and [i.ytimg.com](http://i.ytimg.com). My assumption is that these domain names are referenced by [www.youtube.com](http://www.youtube.com) and require my own device to connect to those to gather whatever information they provide to the website. There's also the possibility that these were caused by another process running in the background.
- ARP
  - I disconnected myself from the wireless network and reconnected to the network to trigger an ARP Request to be broadcast. Disconnecting from the network automatically flushes the device's ARP cache, which I confirmed by checking the cache before and after connection. Connection to the network should trigger an ARP announcement, which updates the ARP tables of all other devices on the network.
  - During the packet capture, other ARP traffic was found on the network. Namely, the device sent ARP requests to the router asking for the MAC addresses of ARRISGro and TaiyoYud. After some research, these were found to be components of the router and a printer respectively. The requests were likely done in response to another process on the device requesting for them.
- HTTP
  - I connected to <http://roussev.net>, a known site that uses http. Connecting to this URL triggers an HTTP request to the server that hosts it, asking for the files associated with the web page, such as images, text, and formatting.