

The network_traffic.pcapng file holds a large number of packets, many of which are not noteworthy, such as the RDP related traffic as mentioned in the assignment directions. However, there are a few packets that hold information critical to understanding what network activity was occurring at the time of this capture. Packet numbers 1246 through 2951 feature a significant amount of traffic using the TCP and TLSv1.2 protocols through port 443 from the machine the user captured the packets from to a host with the IP address 216.58.219.100. Upon further research, this IP address is one owned by Google and located in Mountain View, California. The port number being used is also important, as this port is reserved for encrypted HTTP traffic, otherwise known as HTTPS or HTTP over TLS/SSL. This combination of encrypted traffic and Google-based hosts using TLS protocols leads me to believe that sensitive data – most likely searches or an encrypted service such as Google Mail – was being sent back and forth during this time. Following this, between packets 3329 and 7393, very similar traffic was being captured that instead made its way to a host with the IP address 98.139.180.149. Again, using some research, one would find that this IP address is owned by Yahoo and located in Sunnyvale, California. Following this, a large amount of DNS traffic through Yahoo's DNS servers can be seen, before an HTTP GET request is sent to an IP address resolving to <http://www.cnn.com/> in packet number 13756. Accompanying this are a series of HTTP packets that contain the text, images, advertisements, and CSS that make up the front end of the website. These packets contact a network of content distribution networks, including Akami, Cloudfront, and Amazon Web Services, presumably to deliver the content found on the page. Similar traffic is also found starting with another HTTP GET request sent to an IP address resolving to <http://www.nytimes.com/>. Again, thousands of packets retrieve the data used to display the website and all its content and components. Packets that carry advertisements are sent from services such as doubleclick.net and Google Ad Services, whose purpose is to serve up content that can be displayed alongside web content to generate revenue for the website.