According to Marsic (2010), Address Resolution Protocol (ARP) translates network-layer IP addresses to link-layer MAC addresses when routing between nodes on the same LAN or subnet. A sender will first use DNS to resolve the IP address of the receiver. When a communication is being sent to another computer on the same LAN, the sender will need to resolve the physical address on the local network. To do this, the sender will use an ARP table to look up the IP address and it’s corresponding MAC address. If the MAC address is not found on the look-up table, an address request will be broadcast to the network. Should the request be answered, the look-up table will be updated with the new IP/Mac address information. Once the MAC address is known, the sender will send the communication to the receiver (Marsic, 2010).

References

Marsic, I. (2010). Computer Networks: Performance and Quality of Service. Retrieved from http://www.ece.rutgers.edu/~marsic/books/QoS/