

Video - ARP Operation - ARP Reply (2 min)

In the previous video, we saw an ARP request from PC-A looking for the MAC address of PC-C. In this video, we will see the ARP reply in response to that ARP request. PC-C, when it received the ARP request, examined the target IPv4 address and compared it against its own IPv4 address and noticed that it was the intended target. So PC-C will generate an ARP reply in response to that ARP request. The ARP reply includes its own IPv4 address and its own MAC address. It is sent to PC-A. ARP replies are sent as a unicast, so the destination MAC address is that of PC-A. PC-A receives the ARP reply in response to its previous ARP request. It takes the information, the sender IPv4 address and the sender MAC address, and adds that information to its ARP cache. PC-A can now take the packet-- the original packet destined for PC-C-- take that packet off hold, and has the information it needs to send that packet to PC-C. So it takes the information from the ARP cache, the MAC address, and adds that to the Ethernet header as the destination MAC address. PC-A can now forward this packet in the proper Ethernet frame on to PC-C.