

3- Hosts

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Hosts do to speak on the Internet

- This lesson will illustrate two scenarios:

- Hosts connected directly to each other:

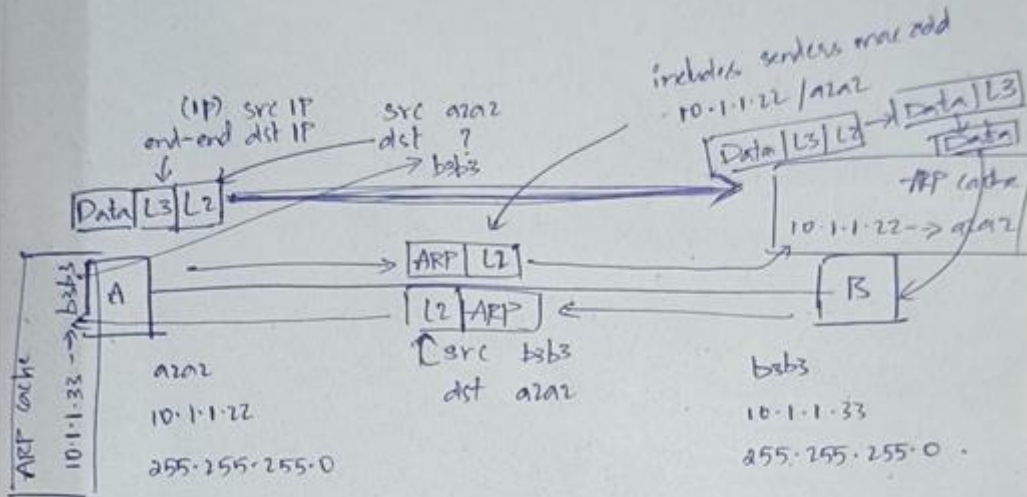


- Host connected through a Router:



- Hosts communicating to another host in the same network
- Hosts communicating to another host in the foreign network.

Part A.



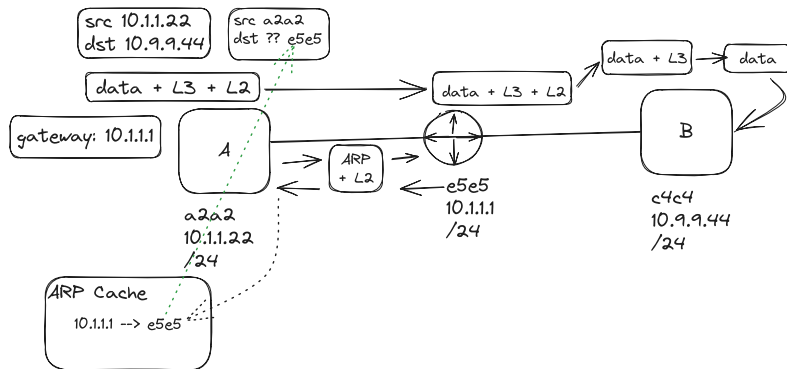
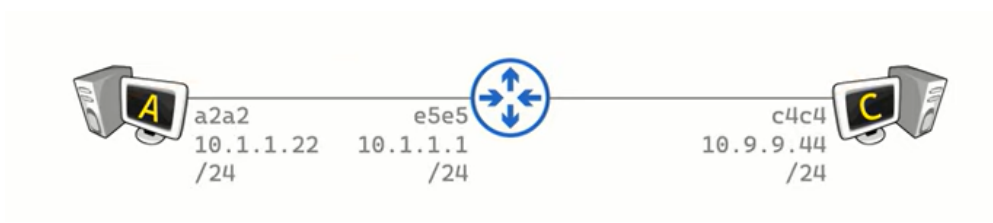
- Host A has some data to send to Host B.
- Host A knows the IP addresses of Host B
 - maybe user typed: ping 10.1.1.33
 - Maybe IP address was acquired from DNS.
 - Host A knows 10.1.1.33 is its own IP network. (concept of subnet)

- Host A does not know Host B's MAC address.
- Host A must use ARP to resolve Host B's MAC address.
- L2 header is meant to take ARP payload & get it delivered to Host B
 - ARP Request is a Broadcast - sent to everyone on the network

- ARP mappings are stored in an ARP cache.
- Further data exchange between hosts is simple.

- Steps a Host takes when speaking to another host on the same network
- Steps are the same regardless of if there are switches or hubs
- ARP links a L3 address to a L2 address.

Part B.



3- part-B