

Internet Address Resolution Protocol (*ARP*)

- Internet standard for dynamic address binding
- Allows machine *A* to find machine *B*'s physical address knowing only *B*'s Internet address
- Uses hardware broadcast
- Note: *ARP* only used to map addresses within a single physical network, never across multiple networks
- Machine *A* broadcasts *ARP* request with *B*'s IP address
- All machines on local net receive broadcast
- Machine *B* replies with its physical address
- Machine *A* adds *B*'s address information to its table
- Machine *A* delivers packet directly to *B*

Illustration Of ARP Request And Reply Messages

- Example of machine “A” looking for machine “B”
 - Machine “A” sends a broadcast that goes to every machine on the net
 - Machine “B” responds back to machine “A” with its hardware address

