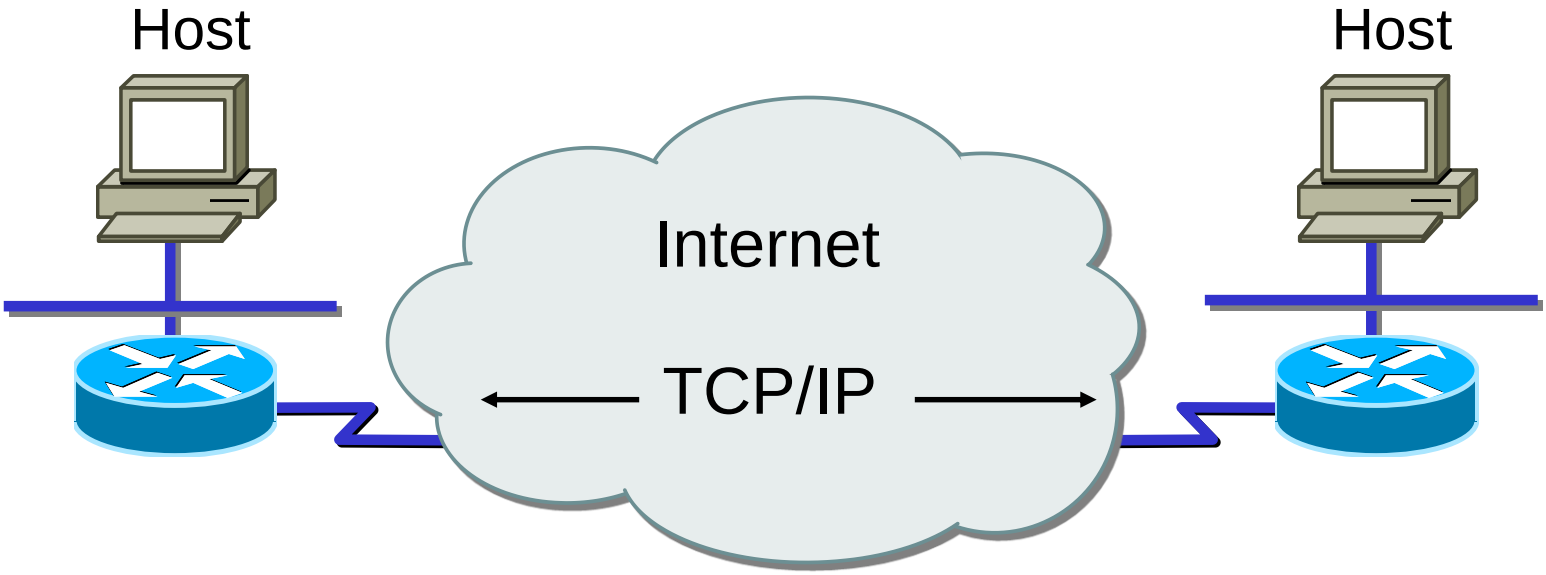
FUNDAMENTOS DE REDES DE COMPUTADORES

Aula 7 – TCP/IP - I

Interconnecting Networks with TCP/IP

Aula 7 – TCP/IP - I

Introduction to TCP/IP



- Early protocol suite
- Universal

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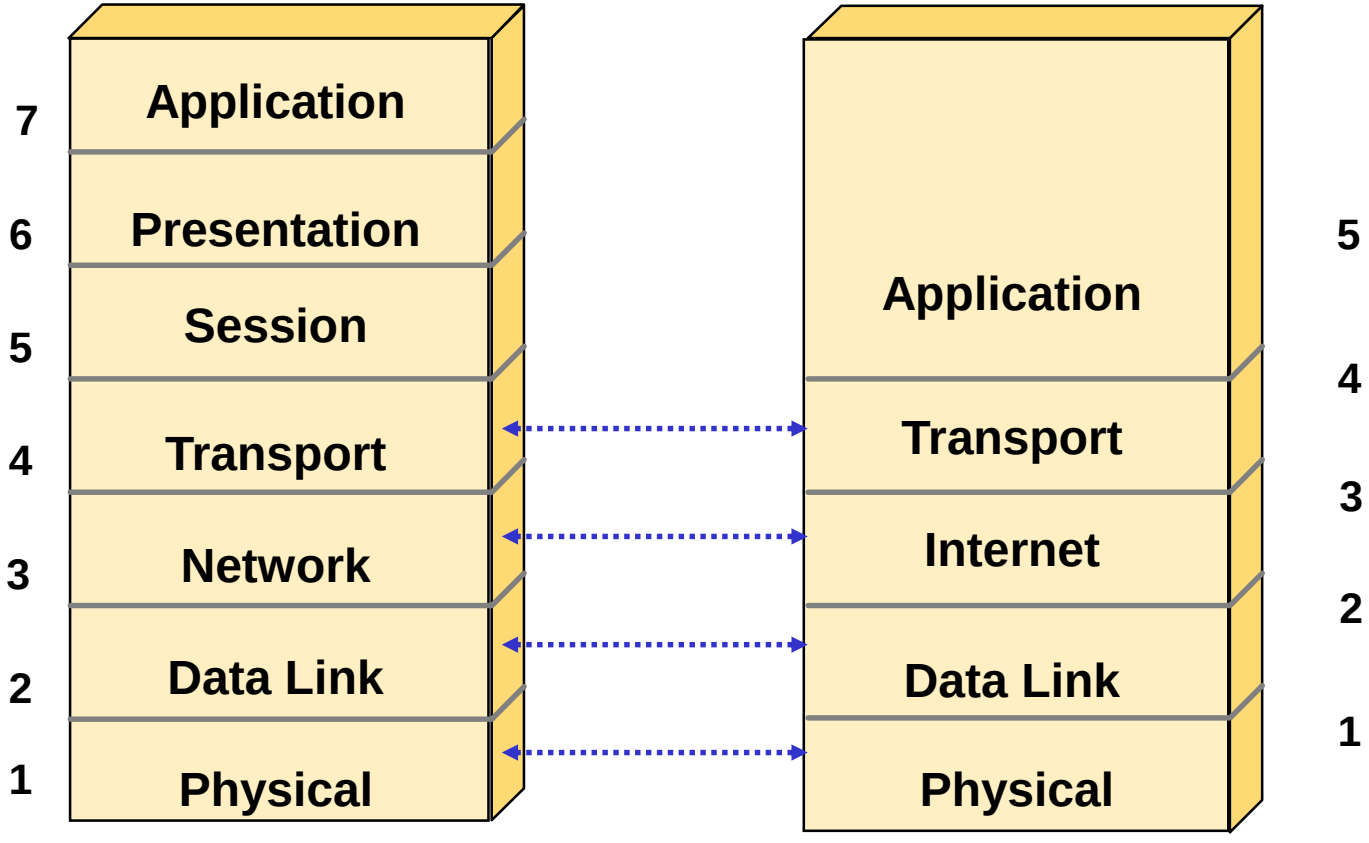

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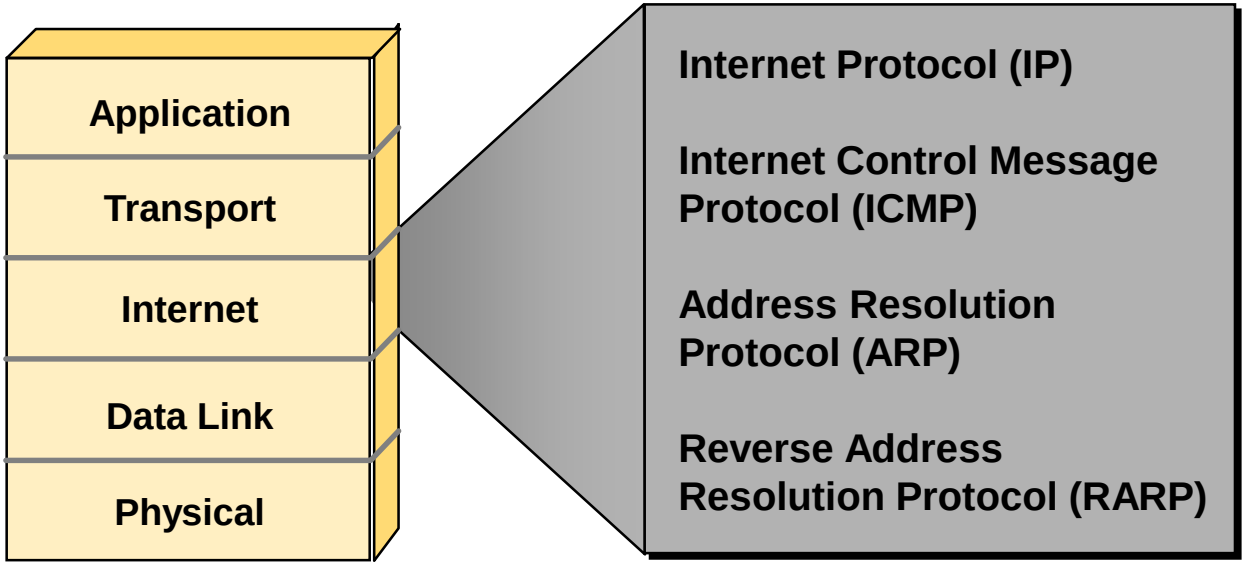
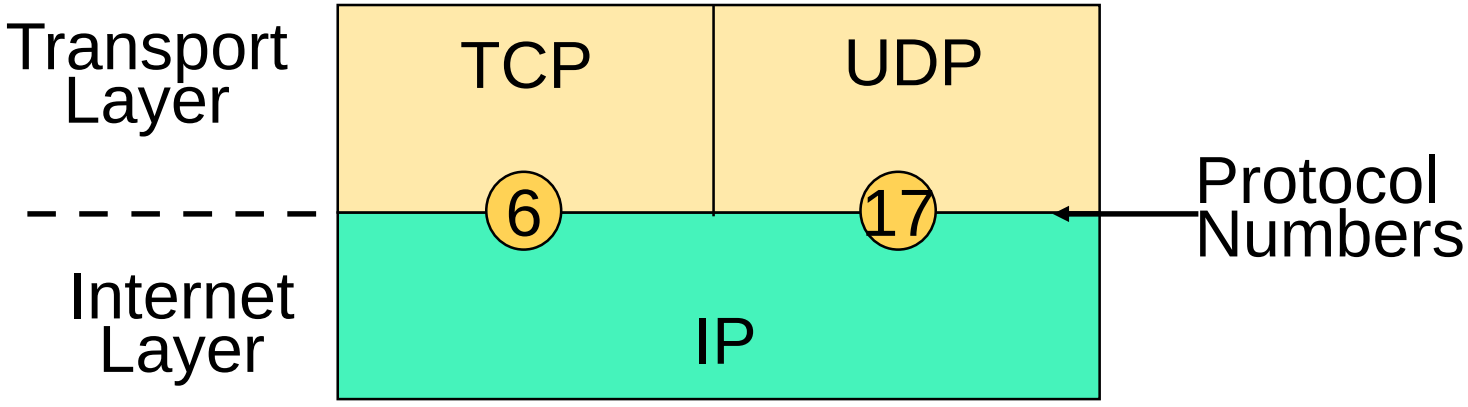
Internet Layer Overview



- OSI network layer corresponds to the TCP/IP internet layer

Protocol Field



- Determines destination upper-layer protocol

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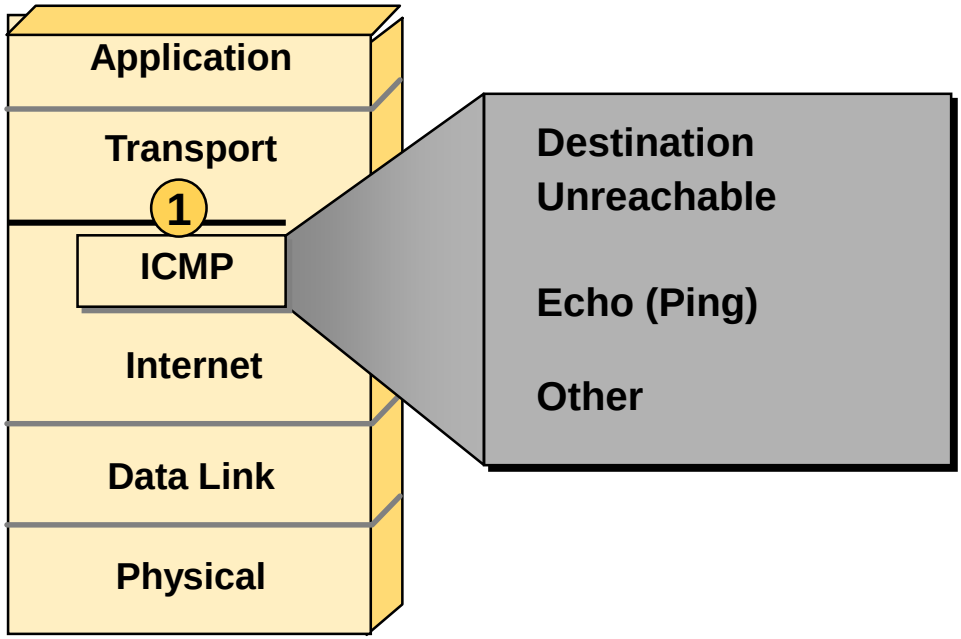
Internet Control Message Protocol



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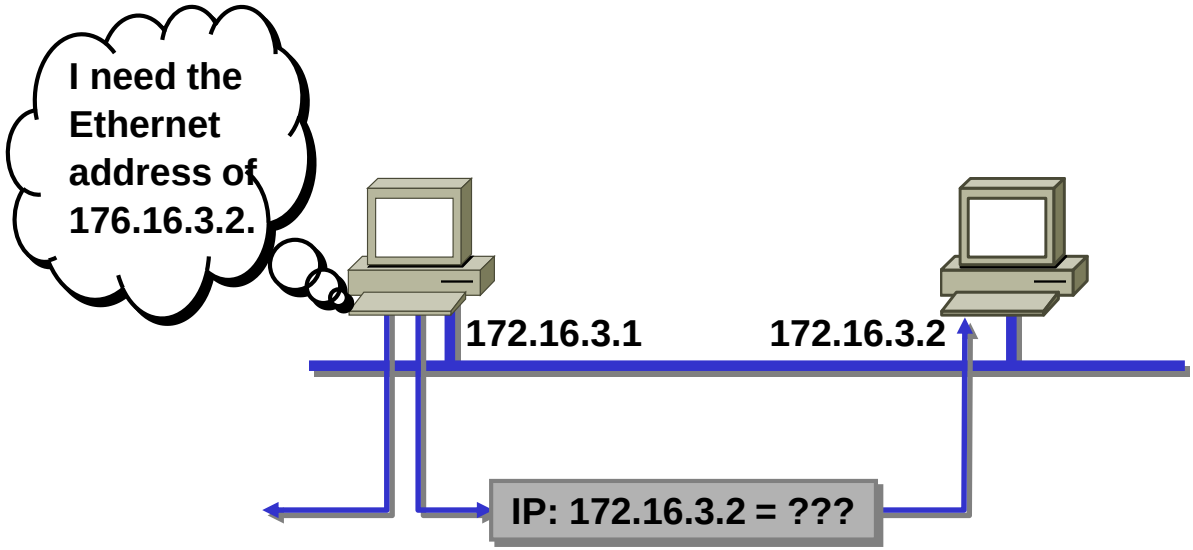
Address Resolution Protocol



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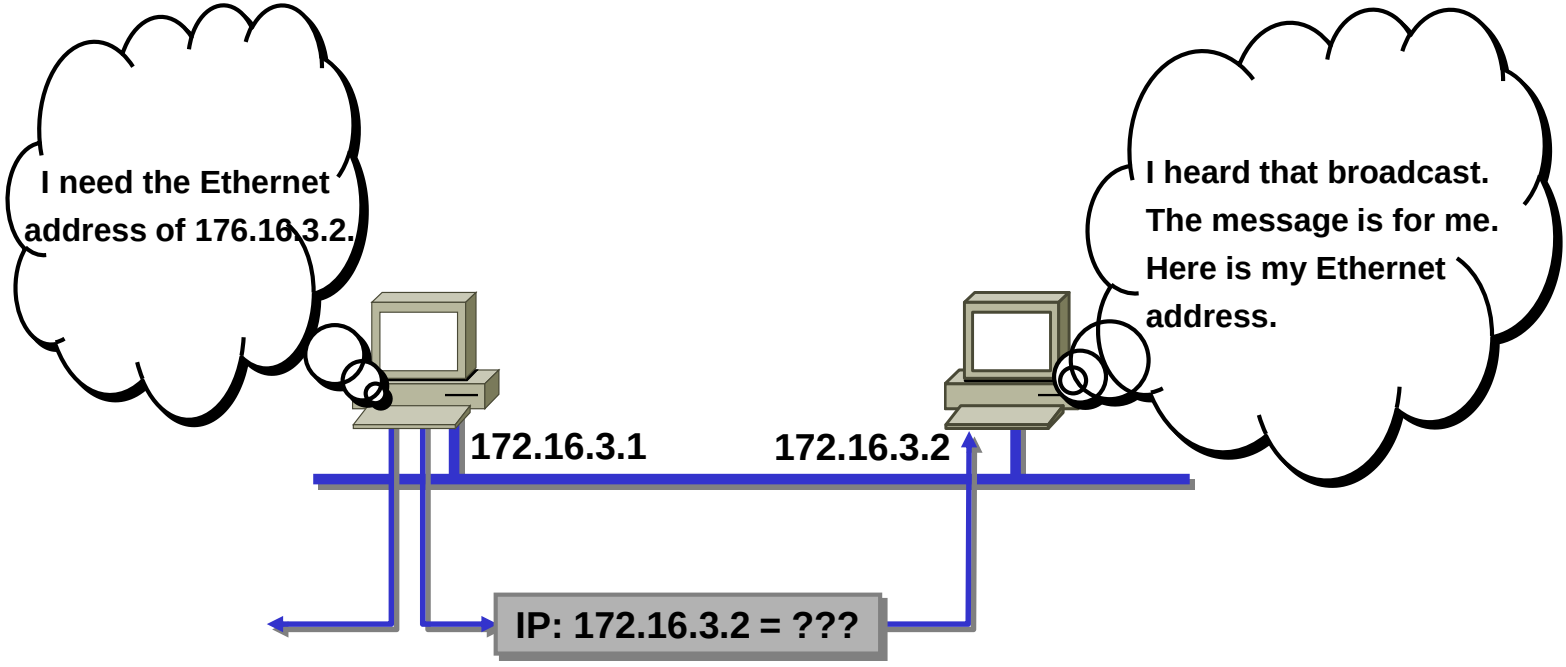
Address Resolution Protocol



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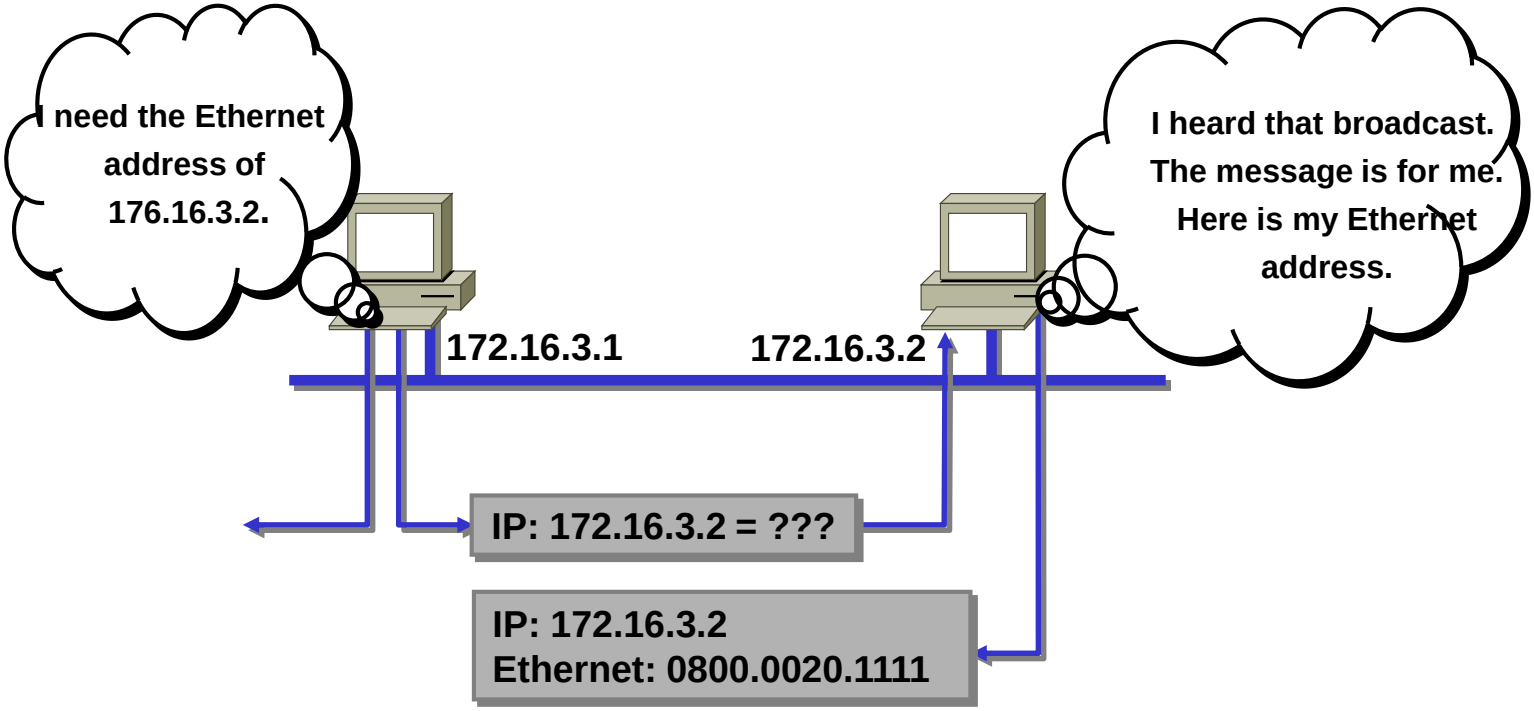
Address Resolution Protocol



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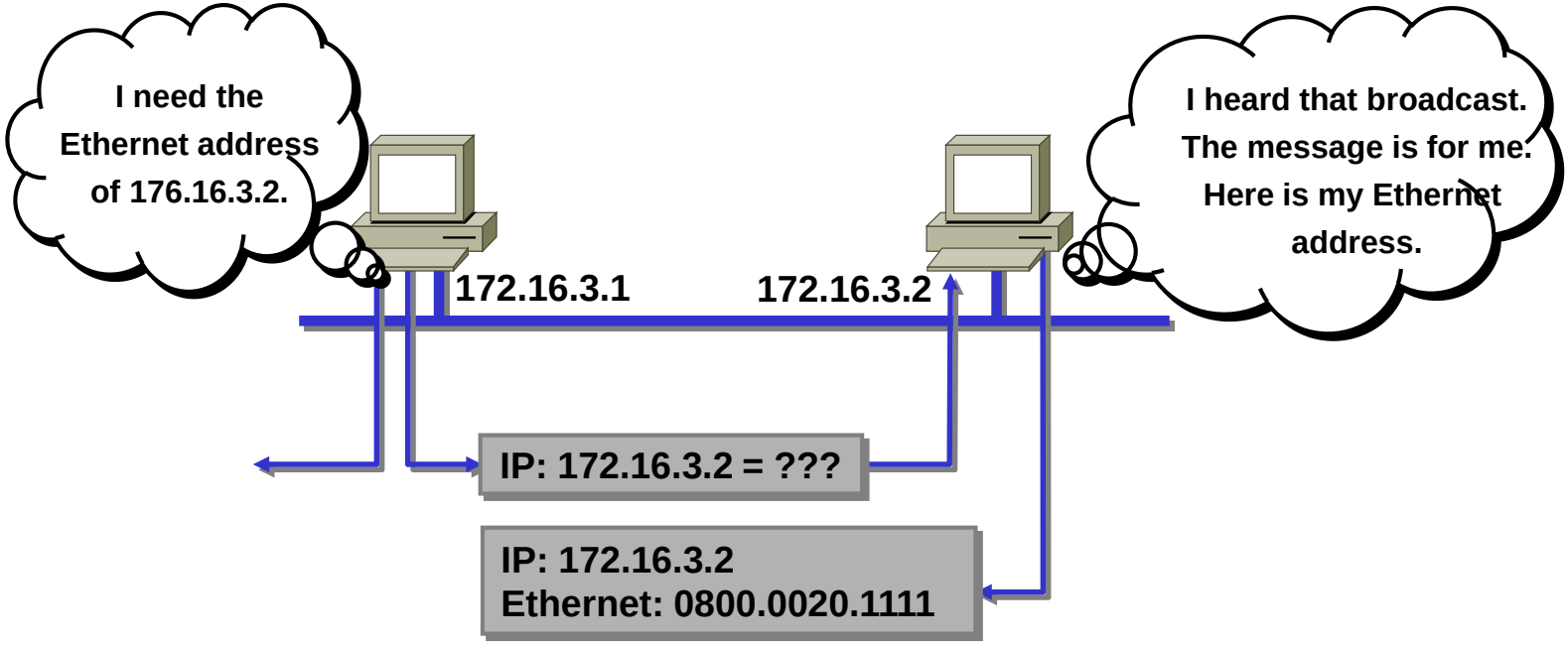
Address Resolution Protocol



- Map IP → Ethernet
- Local ARP

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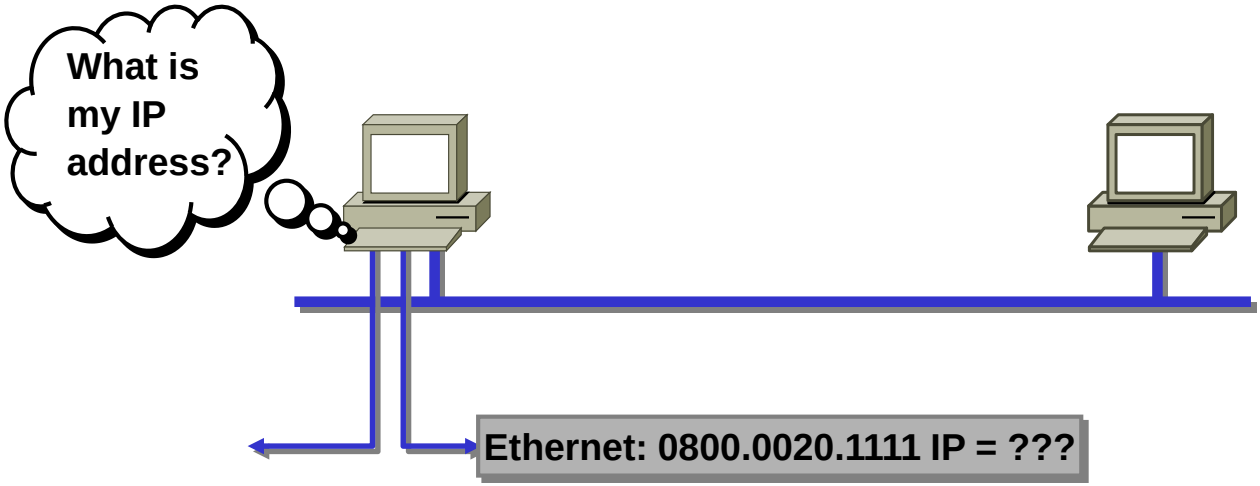
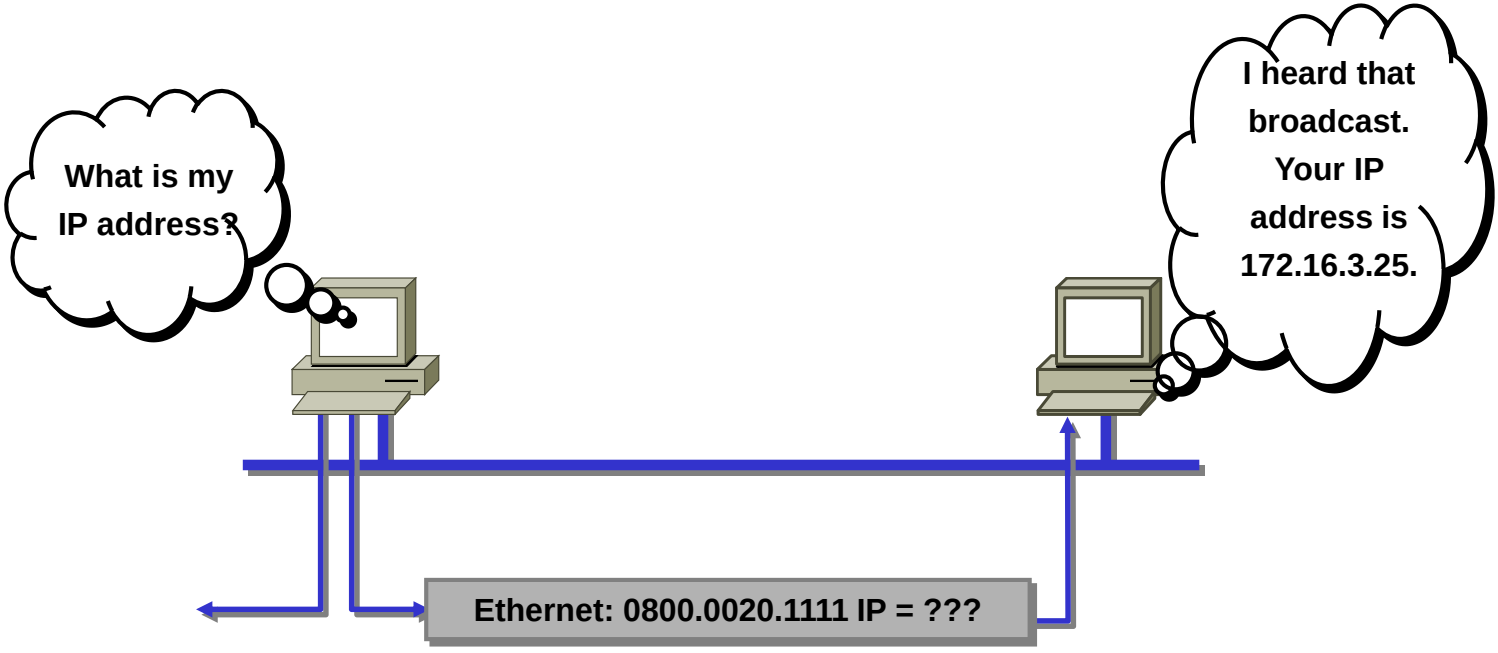
Reverse ARP



Reverse ARP


What is my
IP address?
I heard that
broadcast.
Your IP
address is
172.16.3.25.
Ethernet: 0800.0020.1111 IP = ???

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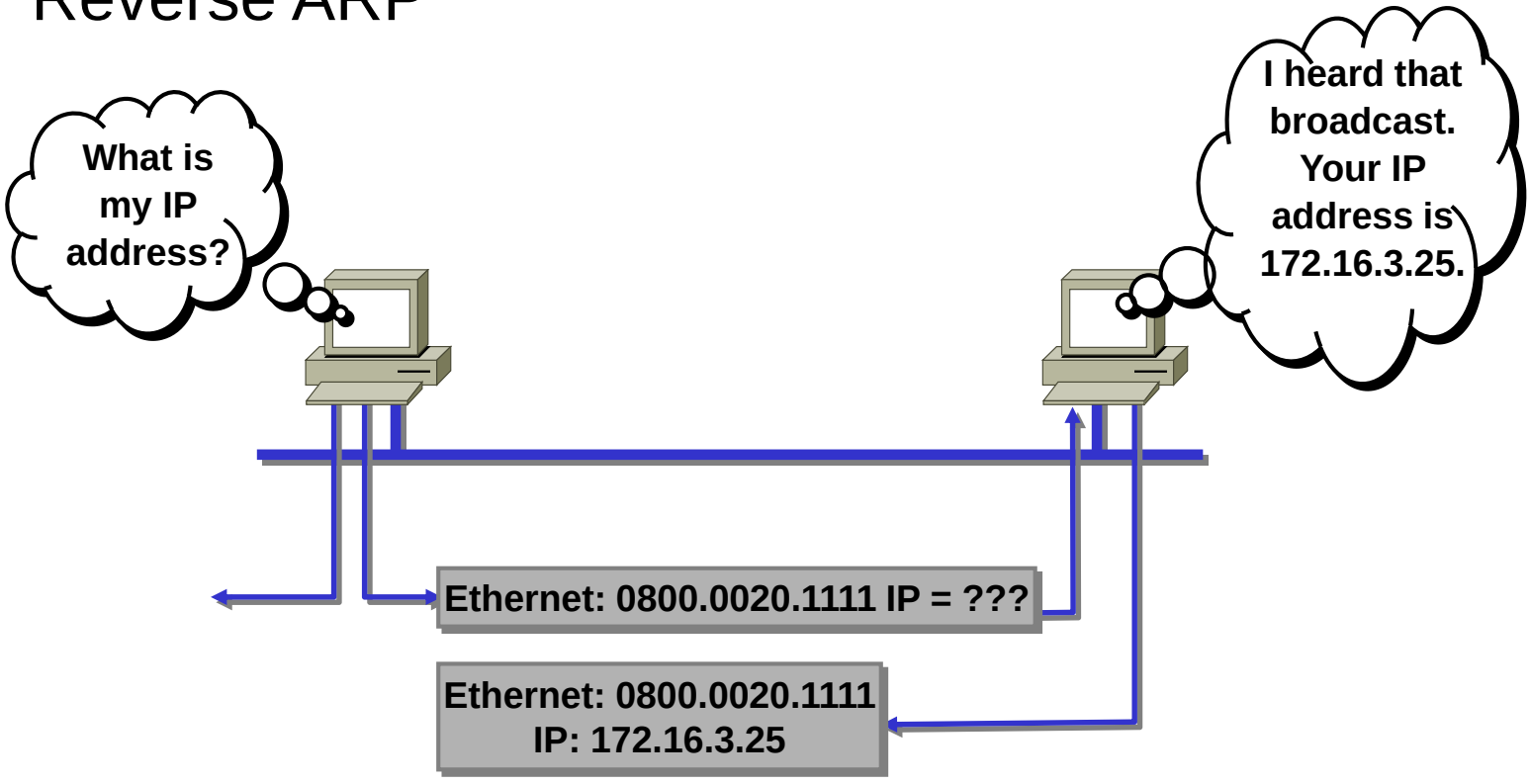
Reverse ARP



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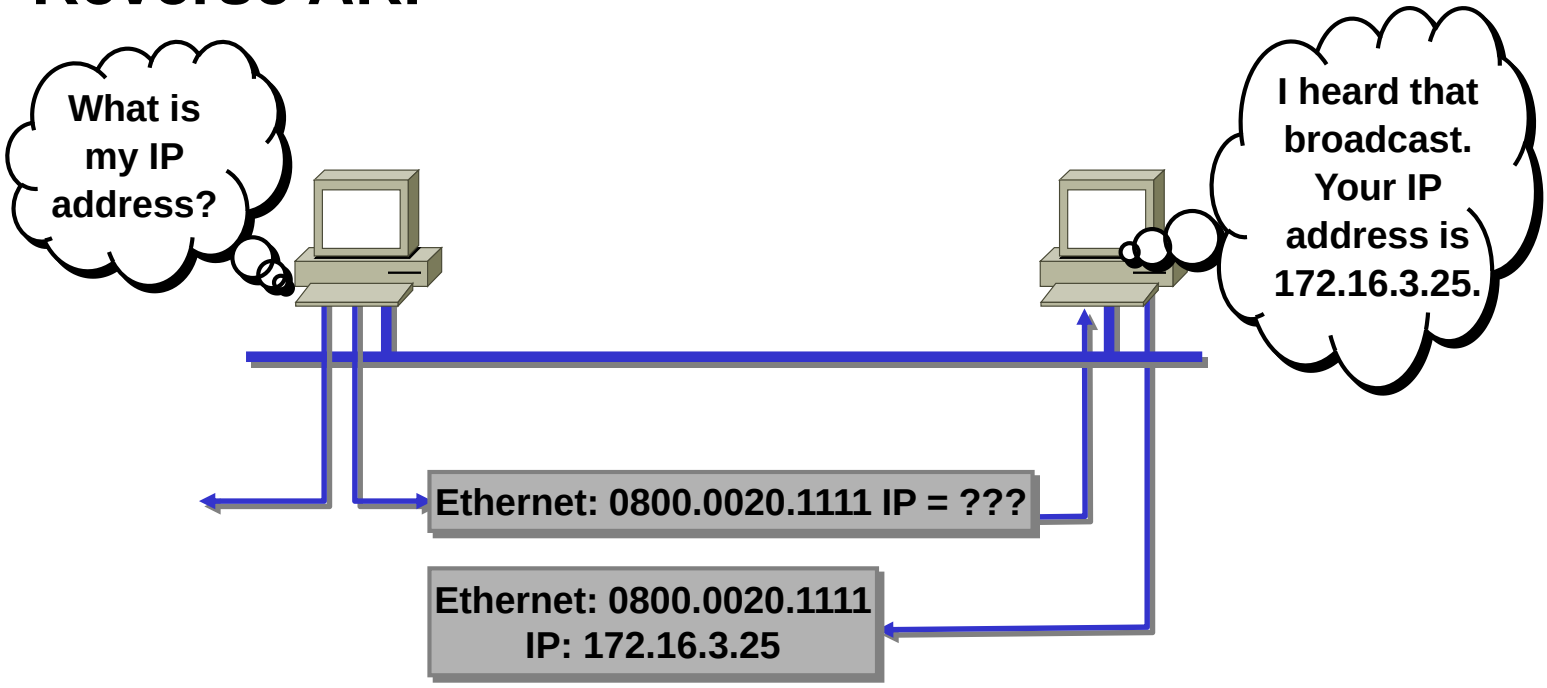
Reverse ARP



- Map Ethernet → IP

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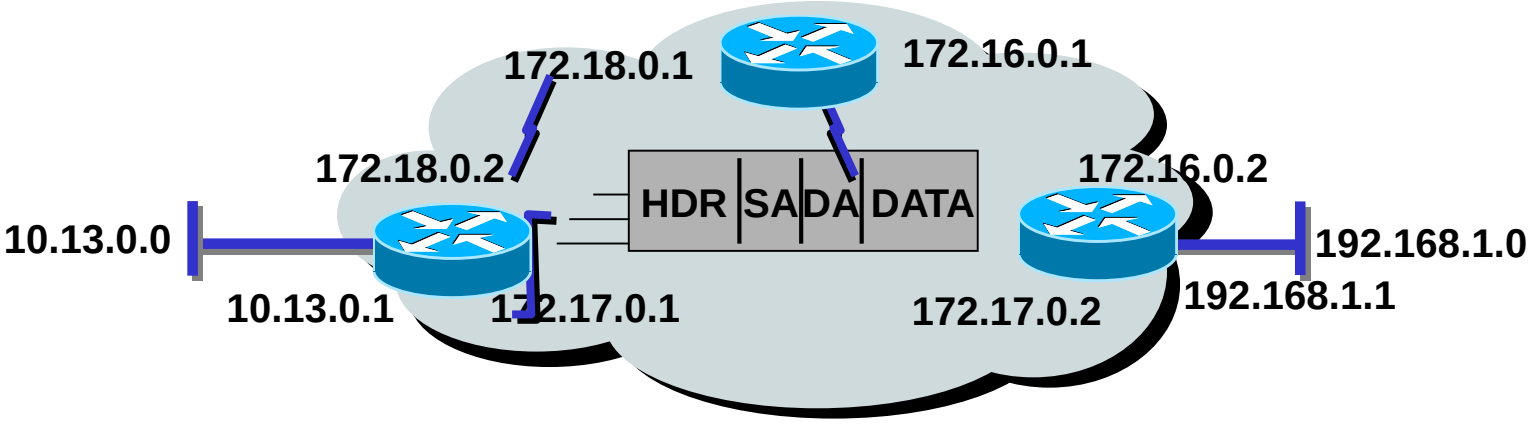
Introduction to TCP/IP Addresses



- Unique addressing allows communication between end stations
- Path choice is based on location

•Location is represented by an address

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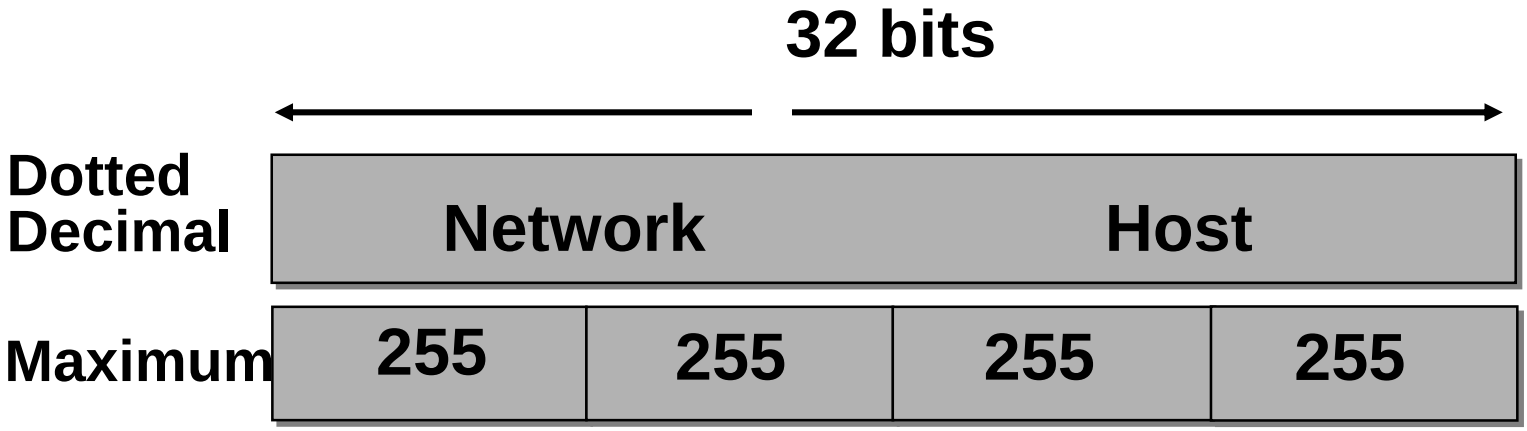
IP Addressing



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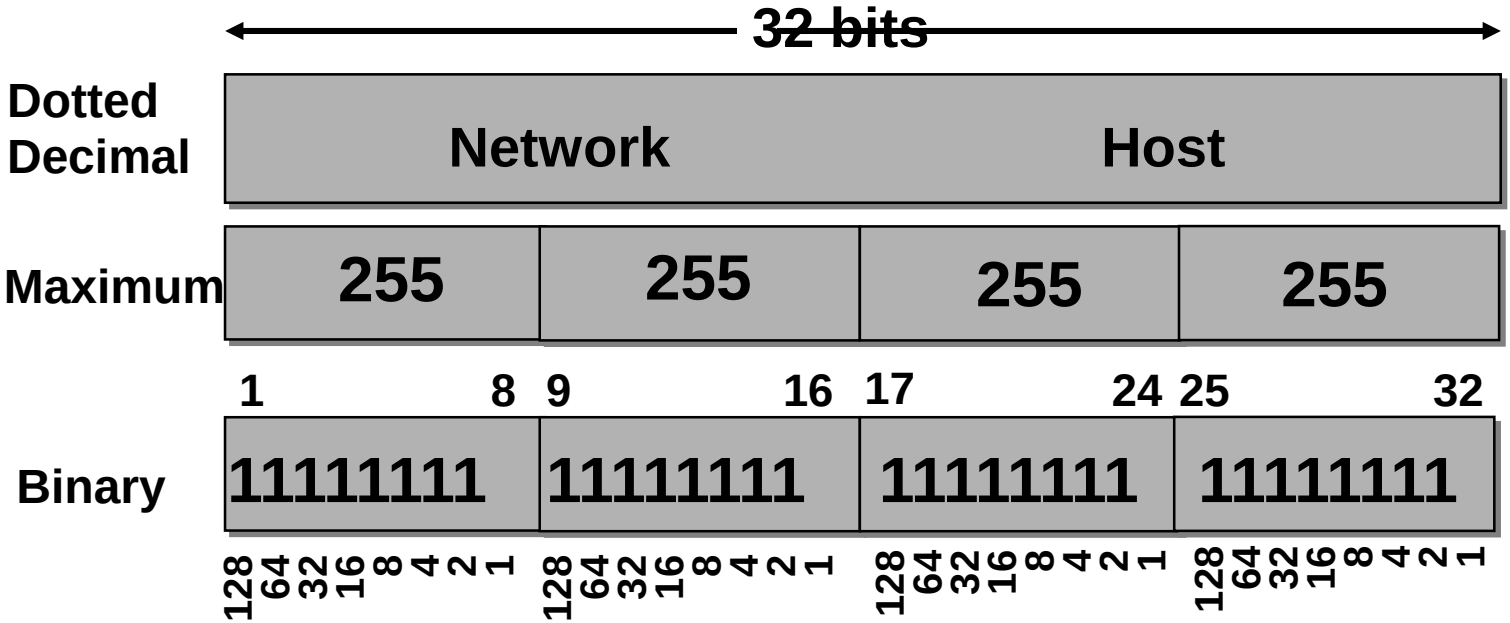
IP Addressing



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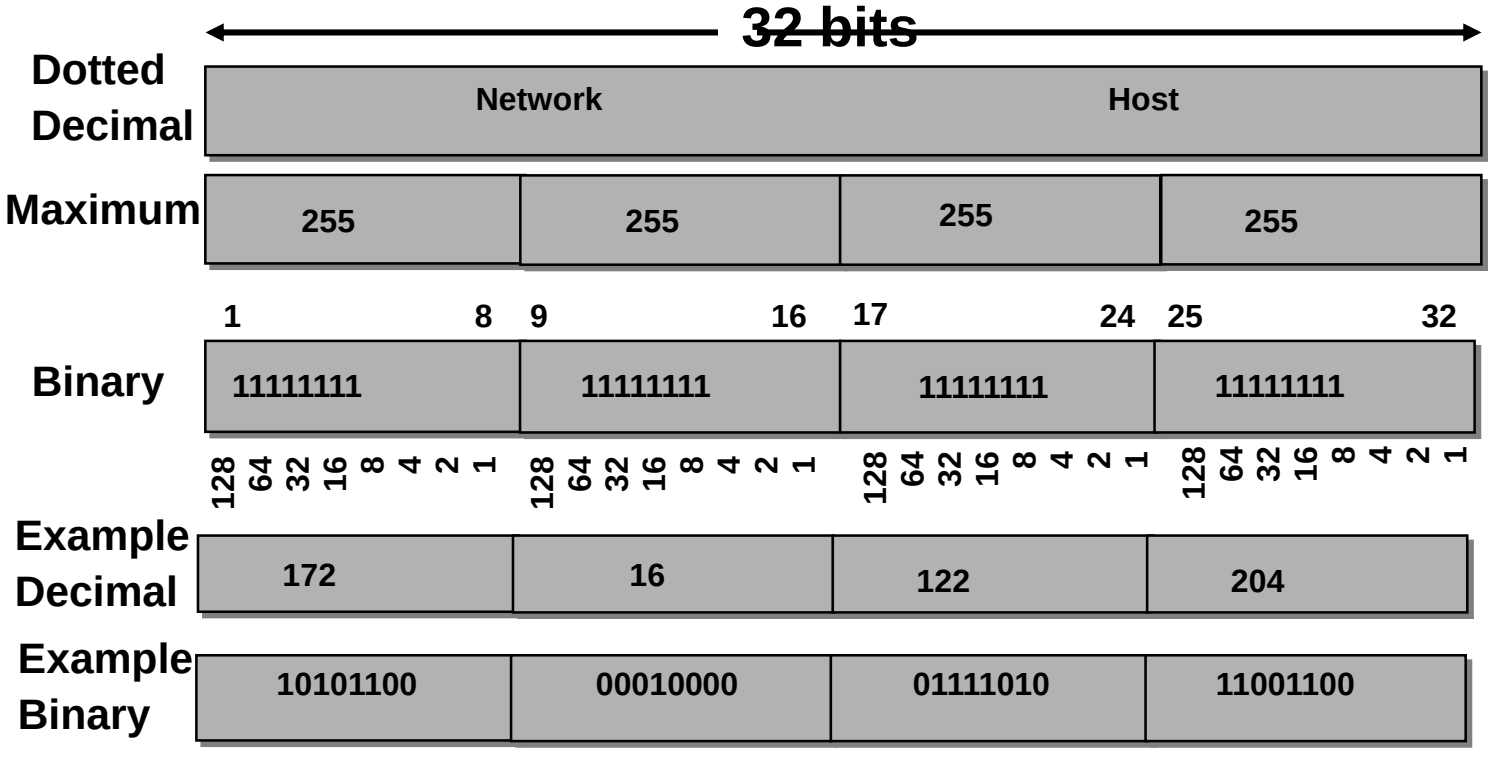

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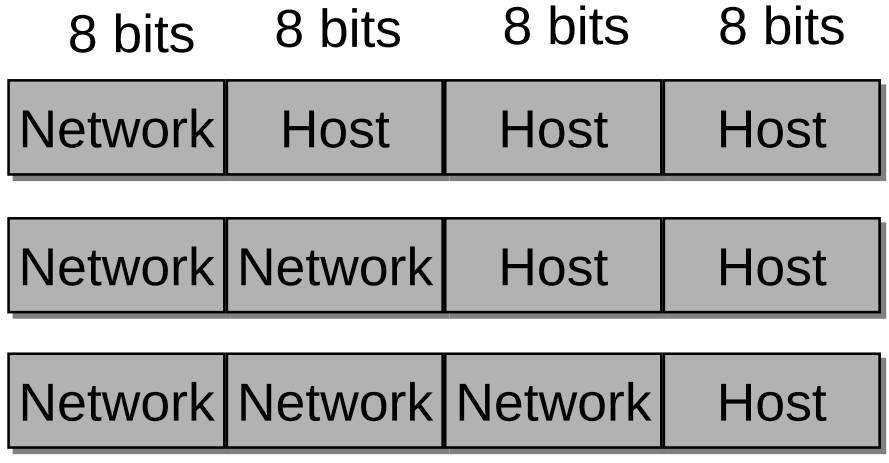
IP Address Classes



- Class A:
- Class B:
- Class C:
- Class D: Multicast
- Class E: Research

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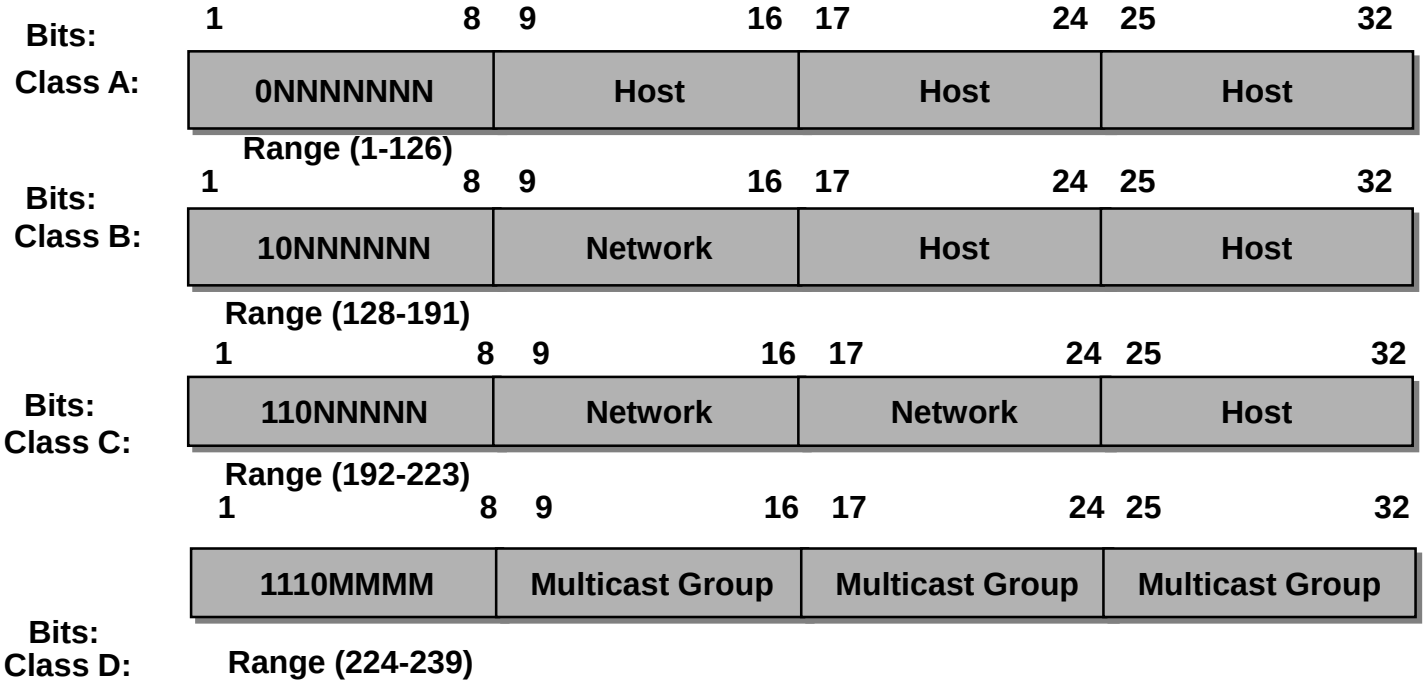
IP Address Classes



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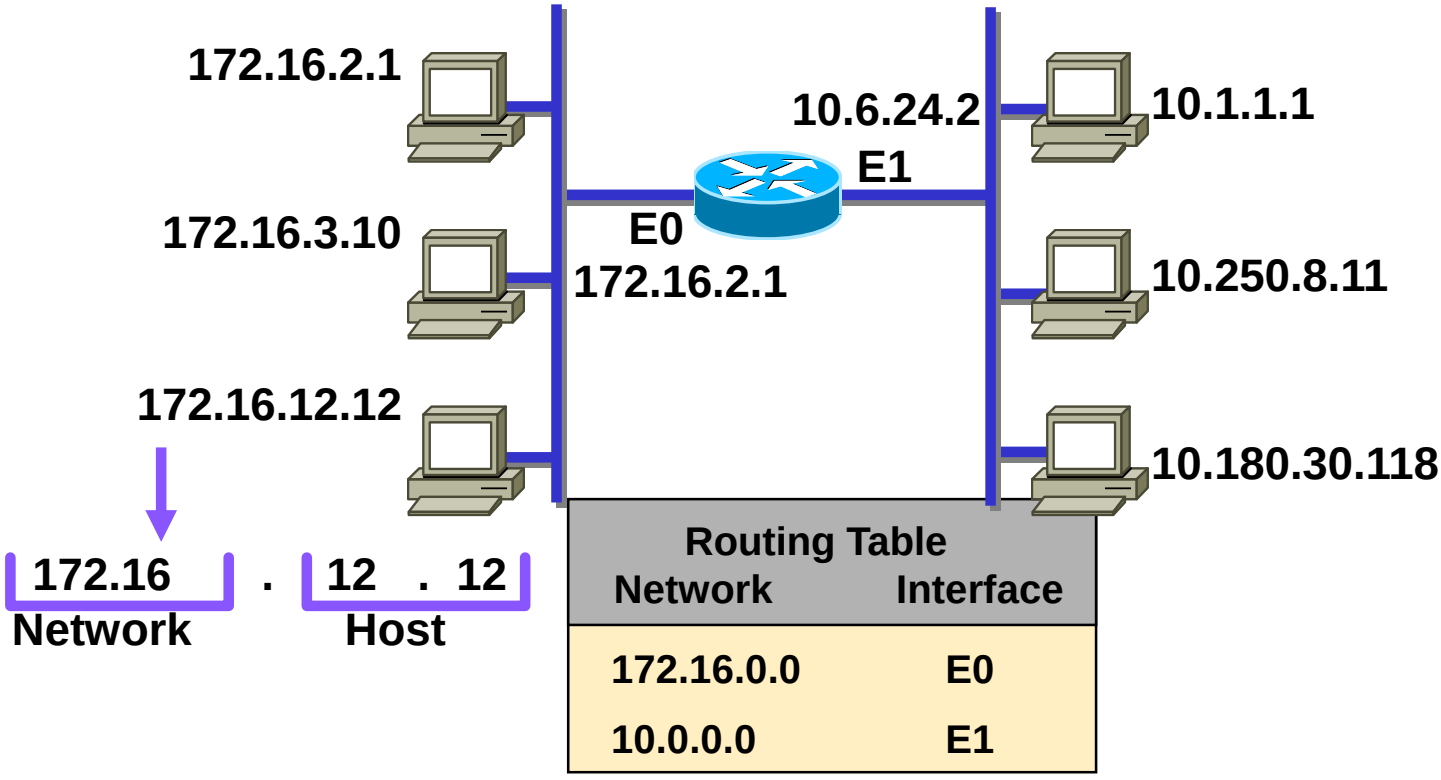

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IP Address Classes

Address	Class	Network	Host
10.2.1.1			
128.63.2.100			
201.222.5.64			
192.6.141.2			
130.113.64.16			
256.241.201.10			