Routing and ARP Mental Model

Computer 1

Applications

Routing system

IP address

ARP system

MAC address

Network Card

MAC address

Ethernet

Routing table: 192.168.100.0/24 as-is
68.68.0.0/16 sent to 192.168.100.15

arp cache

MAC 48:5B:39:78:8E:EA
IP 192.168.100.1

Computer 2

Applications

Routing system

IP address

ARP system

MAC address

Network Card

MAC address

Ethernet

Routing table: 192.168.100.0/24 as-is
68.68.0.0/16 sent to 192.168.100.15

arp cache

MAC 54:04:A6:84:6D:A6
IP 192.168.100.2

Router/Gateway

NAT

Routing

ARP

ARP

MAC 53:2A:81:EE:52:08
IP 68.68.68.68

MAC 23:40:4D:17:22:B9
IP 192.168.100.15

Network Card

Network Card

MAC address

Ethernet

MAC address

Ethernet 68.68.0.0/16 subnet

switch

switch

192.
168.
100.
0/24
subnet

192.
168.
100.
0/24
subnet