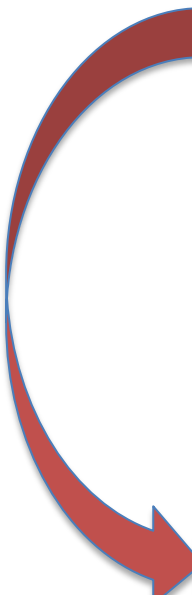
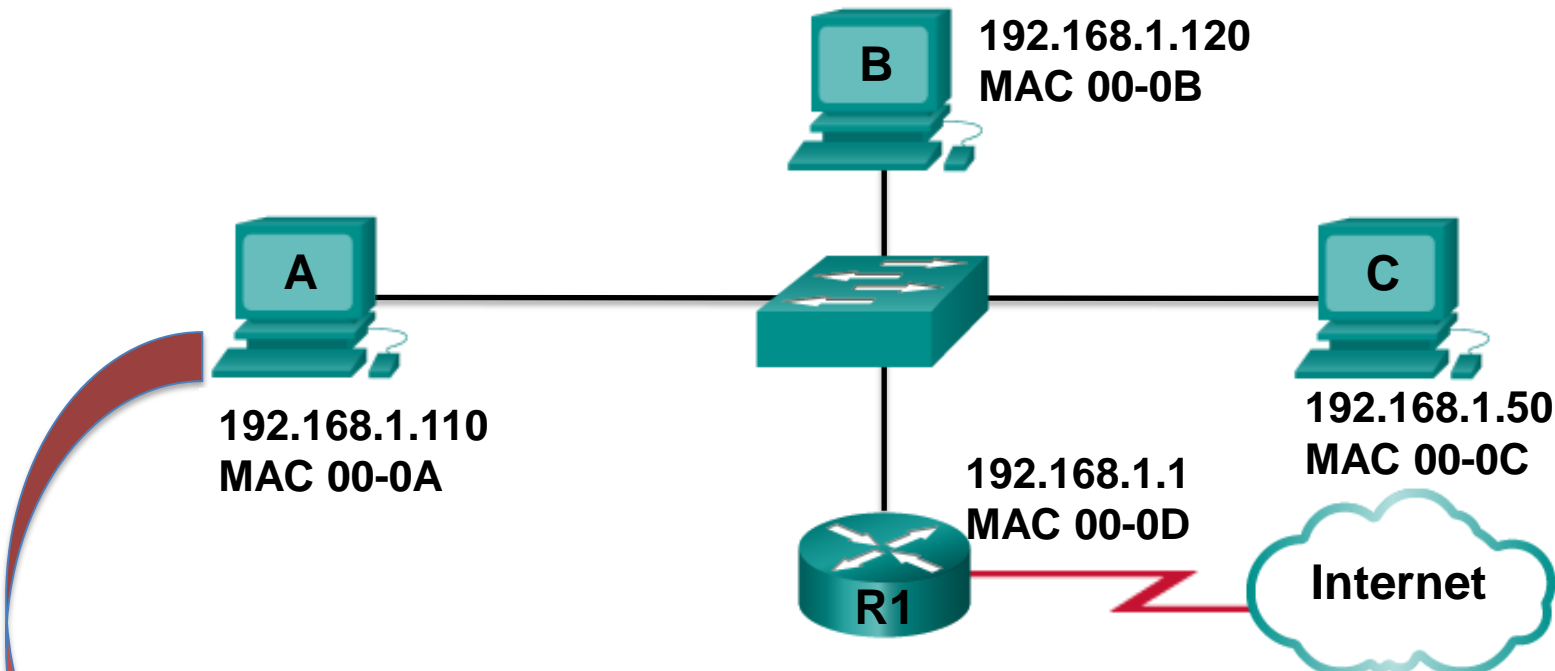
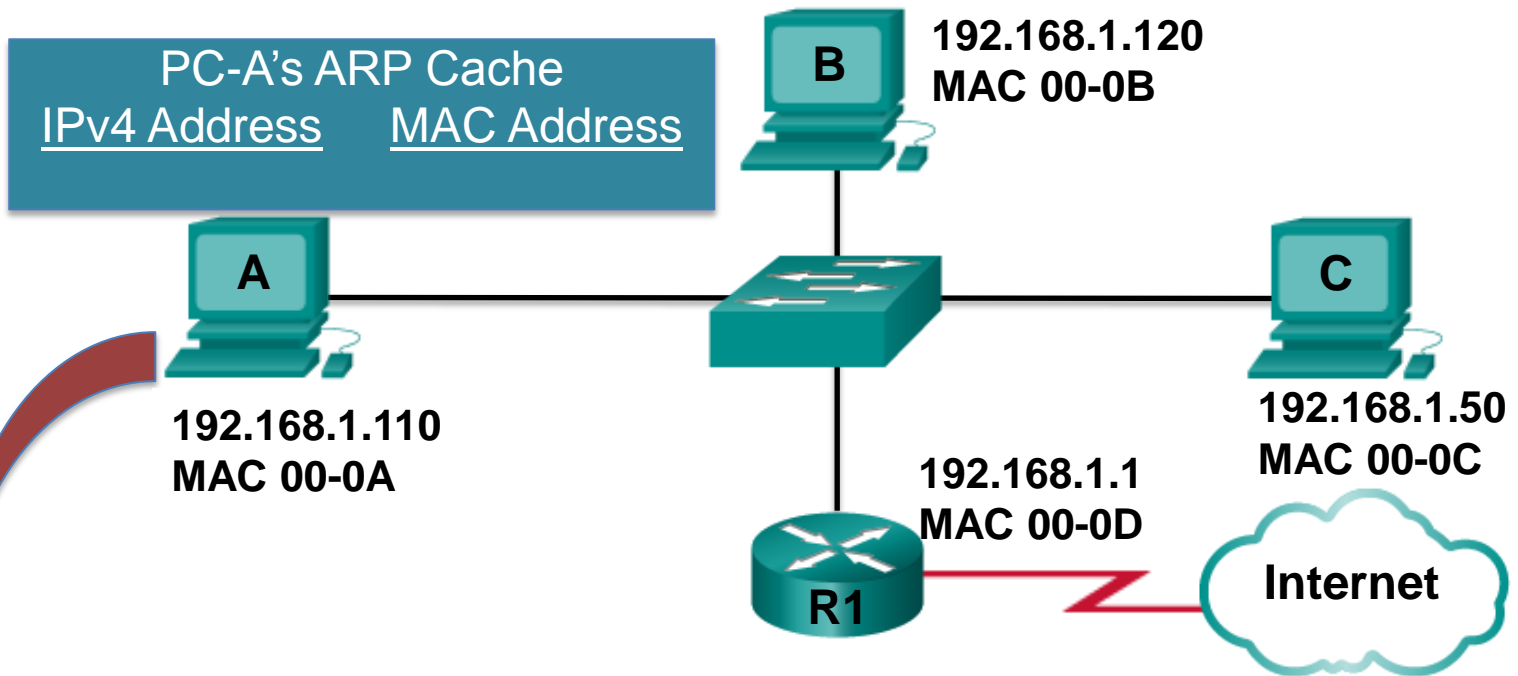


# **5.3.2.3 - ARP Operation - ARP Request**



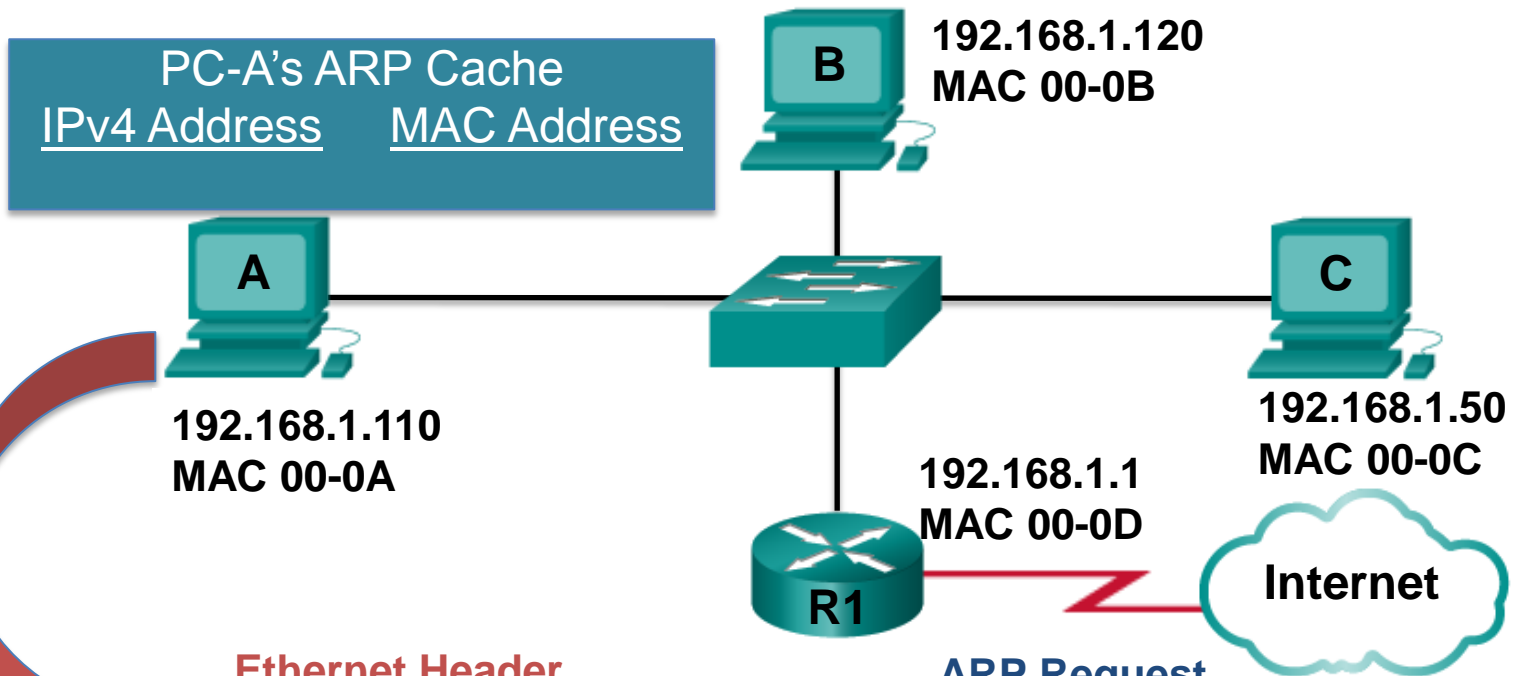
| Ethernet Header        |                     | IP Packet                  |                                |
|------------------------|---------------------|----------------------------|--------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | Source IP<br>192.168.1.110 | Destination IP<br>192.168.1.50 |



**PC-A's ARP Cache**

| <u>IPv4 Address</u> | <u>MAC Address</u> |
|---------------------|--------------------|
|---------------------|--------------------|

| Ethernet Header        |                     | IP Packet                  |                                |
|------------------------|---------------------|----------------------------|--------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | Source IP<br>192.168.1.110 | Destination IP<br>192.168.1.50 |



**Ethernet Header**

|                          |                     |                             |                   |
|--------------------------|---------------------|-----------------------------|-------------------|
| Destination MAC<br>FF-FF | Source MAC<br>00-0A | Target IPv4<br>192.168.1.50 | Target MAC<br>??? |
|--------------------------|---------------------|-----------------------------|-------------------|

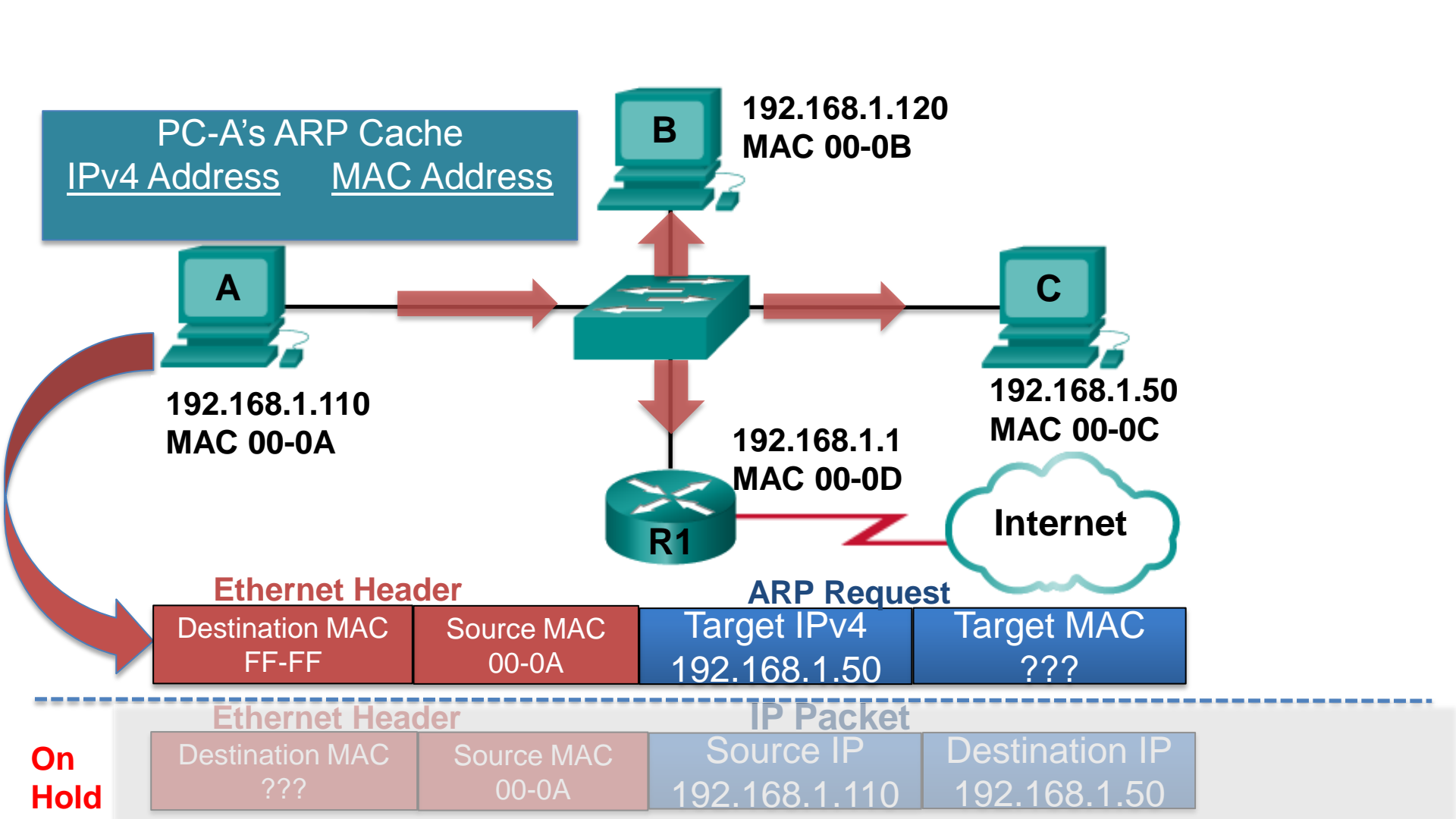
**ARP Request**

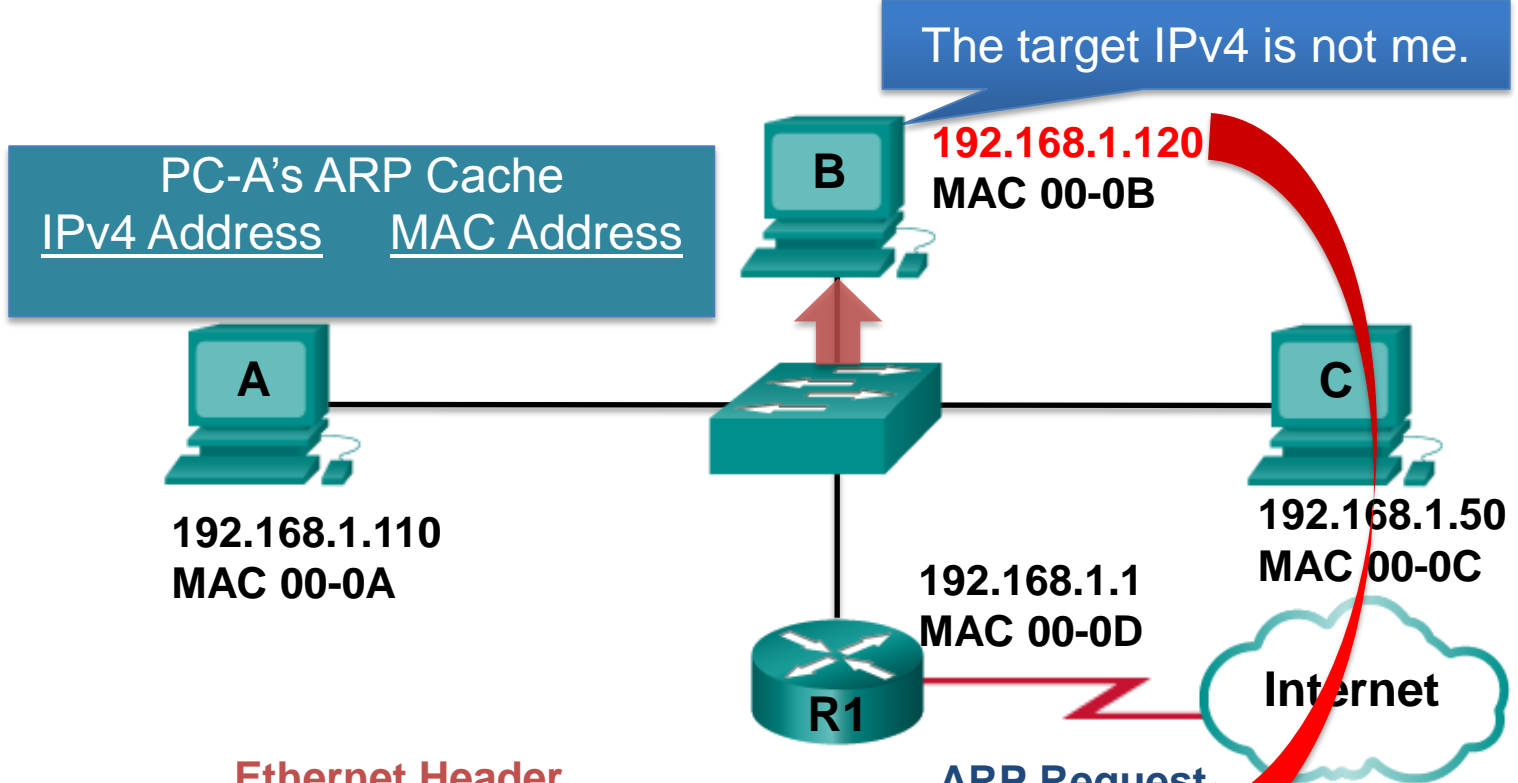
**Ethernet Header**

|                        |                     |                            |                                |
|------------------------|---------------------|----------------------------|--------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | Source IP<br>192.168.1.110 | Destination IP<br>192.168.1.50 |
|------------------------|---------------------|----------------------------|--------------------------------|

**IP Packet**

**On Hold**

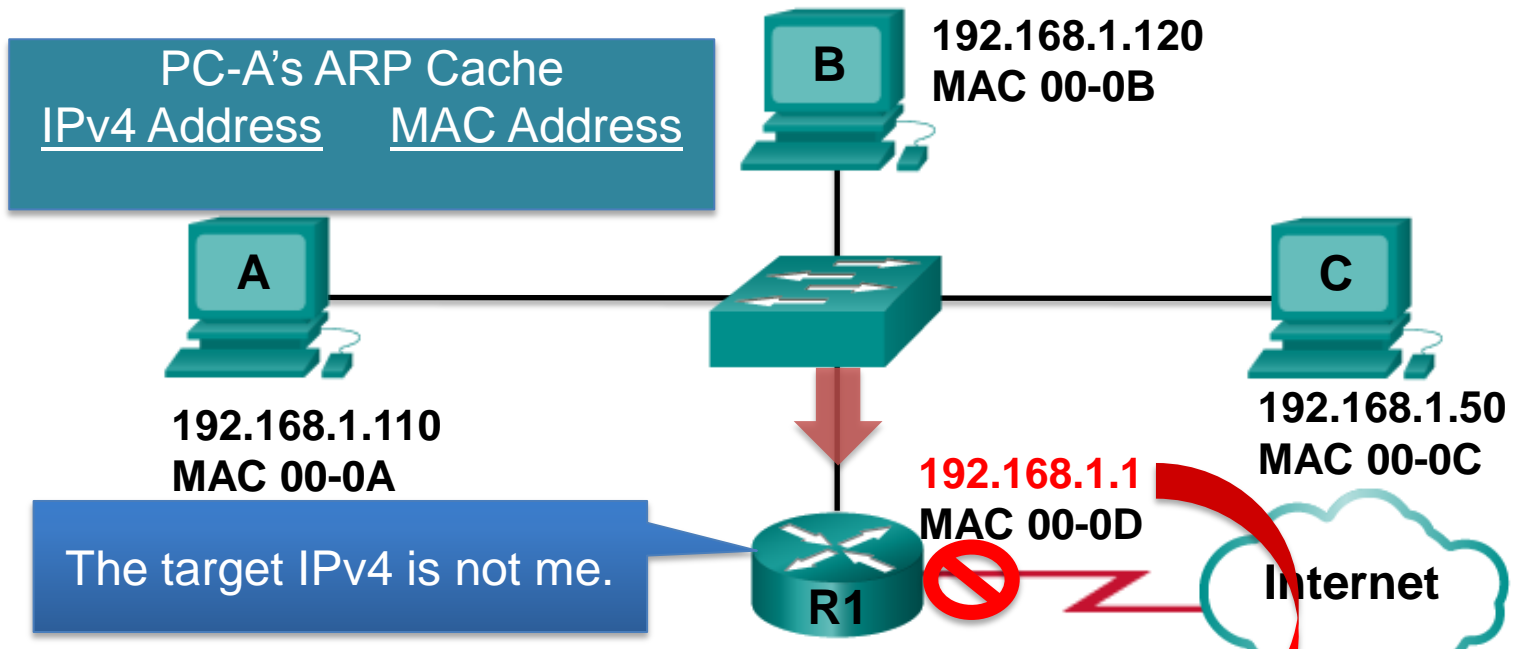




| Ethernet Header          |                     | ARP Request                 |                   |
|--------------------------|---------------------|-----------------------------|-------------------|
| Destination MAC<br>FF-FF | Source MAC<br>00-0A | Target IPv4<br>192.168.1.50 | Target MAC<br>??? |

| Ethernet Header        |                     | IP Packet                  |                                |
|------------------------|---------------------|----------------------------|--------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | Source IP<br>192.168.1.110 | Destination IP<br>192.168.1.50 |

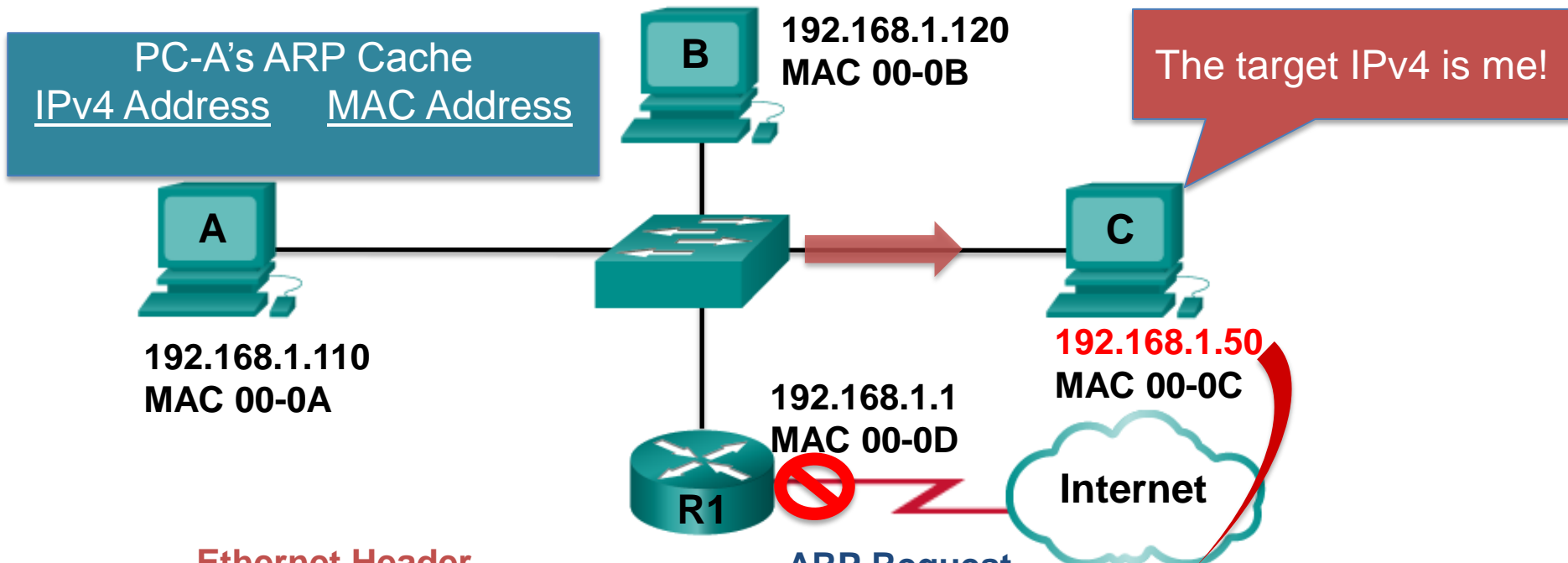
**On Hold**



| Ethernet Header          |                     | ARP Request                 |                   |
|--------------------------|---------------------|-----------------------------|-------------------|
| Destination MAC<br>FF-FF | Source MAC<br>00-0A | Target IPv4<br>192.168.1.50 | Target MAC<br>??? |

| Ethernet Header        |                     | IP Packet                  |                                |
|------------------------|---------------------|----------------------------|--------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | Source IP<br>192.168.1.110 | Destination IP<br>192.168.1.50 |

On Hold



**Ethernet Header**

|                          |                     |                                    |                          |
|--------------------------|---------------------|------------------------------------|--------------------------|
| Destination MAC<br>FF-FF | Source MAC<br>00-0A | <b>Target IPv4</b><br>192.168.1.50 | <b>Target MAC</b><br>??? |
|--------------------------|---------------------|------------------------------------|--------------------------|

ARP Request

**Ethernet Header**

|                        |                     |                                   |                                       |
|------------------------|---------------------|-----------------------------------|---------------------------------------|
| Destination MAC<br>??? | Source MAC<br>00-0A | <b>Source IP</b><br>192.168.1.110 | <b>Destination IP</b><br>192.168.1.50 |
|------------------------|---------------------|-----------------------------------|---------------------------------------|

**IP Packet**

**On Hold**