

# GIORNO 5 - PRATICA

## 27/06/2025 RELAZIONE

### ESERCIZIO P.TR.

1°

Partendo dal livello 3 - Trasporto, viene utilizzato il protocollo ICMP\*

acronimo di Internet Control Message Protocol, è un protocollo di rete utilizzato per inviare messaggi di controllo e segnalare errori tra dispositivi di rete. È fondamentale per la diagnostica di rete, la gestione degli errori e il supporto dei protocolli di routing.

The screenshot displays a network simulation interface. On the left, a panel titled 'PDU Information at Device: Laptop1' shows 'Outbound PDU Details'. It lists 'In Layers' (Layer7 to Layer1) and 'Out Layers' (Layer7 to Layer1). Layer 3 is highlighted with the text: 'Layer 3: IP Header Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3 ICMP Message Type: 8'. Below this, a list of steps describes the ping process. On the right, a 'Simulation Panel' shows an 'Event List' with two entries at time 0.000. It includes 'Reset Simulation', 'Constant Delay' (checked), and 'Captured to: 0.000 s'. Below these are 'Play Controls' with play, stop, and next buttons. At the bottom, there are tabs for 'Event List', 'Realtime', and 'Simulation'.

PDU Information at Device: Laptop1

OSI Model Outbound PDU Details

At Device: Laptop1  
Source: Laptop1  
Destination: 192.168.100.3

**In Layers**

- Layer7
- Layer6
- Layer5
- Layer4
- Layer3
- Layer2
- Layer1

**Out Layers**

- Layer7
- Layer6
- Layer5
- Layer4
- Layer 3: IP Header Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3 ICMP Message Type: 8
- Layer 2:
- Layer1

1. The Ping process starts the next ping request.  
2. The Ping process creates an ICMP Echo Request message and sends it to the lower process.  
3. The source IP address is not specified. The device sets it to the port's IP address.  
4. The destination IP address is in the same subnet. The device sets the next-hop to destination.

Challenge Me << Previous Layer Next Layer >>

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
<input checked="" type="checkbox"/>	0.000	--
<input checked="" type="checkbox"/>	0.000	--

Reset Simulation ☒ Constant Delay Captured to: 0.000 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

PDU Information at Device: Laptop1

OSI Model

Outbound PDU Details

At Device: Laptop1

Source: Laptop1

Destination: 192.168.100.3

In Layers

Layer7  
Layer6  
Layer5  
Layer4  
  
Layer3  
  
Layer2  
Layer1

Out Layers

Layer7  
Layer6  
Layer5  
Layer4  
  
Layer 3: IP Header Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3 ICMP Message Type: 8  

Layer 2:

Layer1

1. The next-hop IP address is a unicast. The ARP process looks it up in the ARP table.

2. The next-hop IP address is not in the ARP table. The ARP process tries to send an ARP request for that IP address and buffers this packet.

Challenge Me

<< Previous Layer

Next Layer >>

Root

06:01:30

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--

Reset Simulation

☒ Constant Delay

Captured to: 0.000 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

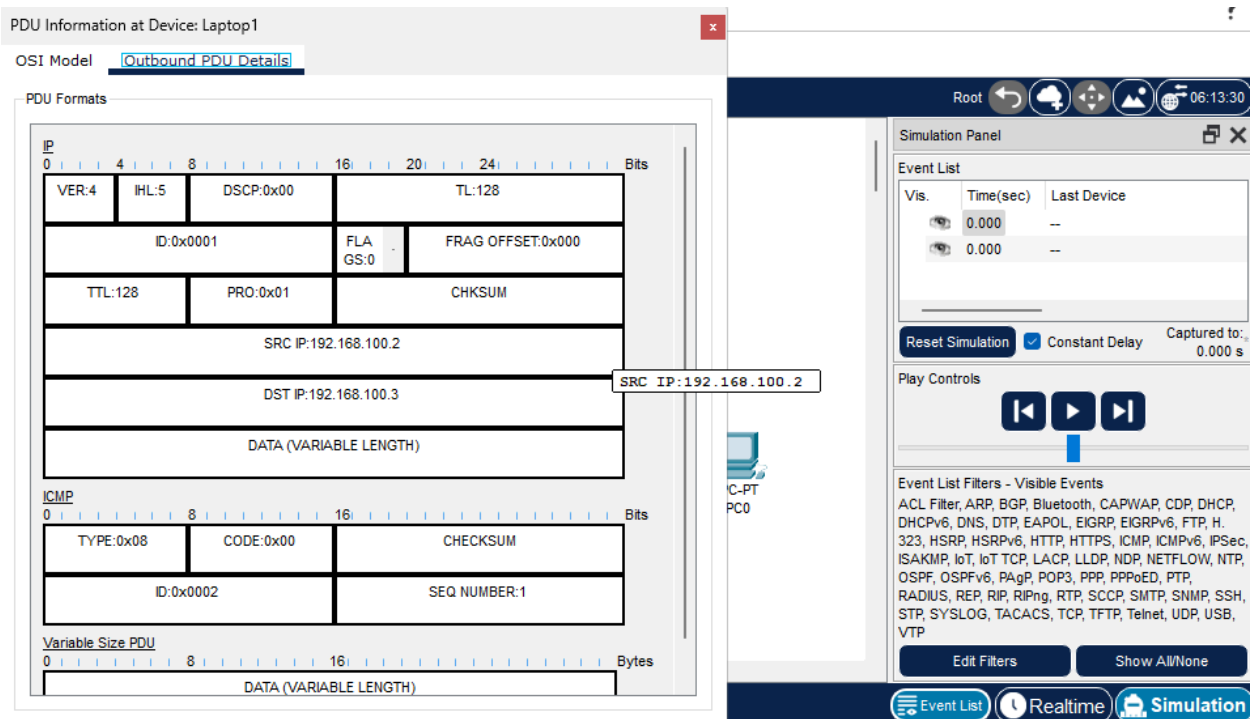
Event List

Realtime

Simulation

GIORNO 5 - PRATICA 27/06/2025 RELAZIONE ESERCIZIO P.TR.

2



## A livello 2 - Data Link\*:

Il livello Data Link fa uso dei servizi del livello fisico per inviare e ricevere bit sui canali di comunicazione. I pacchetti del livello 2 prendono anche il nome di «frame». comunicare tra di loro al livello Data Link utilizzando quello che viene chiamato indirizzo fisico della macchine, oppure più comunemente MAC Address\*.

Ad esempio (come anche in questo caso ) uno switch, due computer possono comunicare tramite gli indirizzi MAC delle loro schede di rete. Si dice in questo caso che la comunicazione avviene al livello 2, perché entrano in gioco solamente protocolli di livello 2 o minore.

Acronico di Media Access Control, il MAC address non è altro che l'indirizzo fisico unico che viene assegnato alle schede di rete dei nostri computer.

Non appena viene utilizzato il tool ping, viene mandata la richiesta di comunicazione all'indirizzo 192.168.100.3

**Laptop1**

```

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.3

Pinging 192.168.100.3 with 32 bytes of data:


```

Time: 00:00:43.683 **PLAY CONTROLS:** [Pause] [Play] [Fast Forward]

**Simulation Panel**

Vis.	Time(sec)	Last Device
<input checked="" type="checkbox"/>	0.000	--
<input checked="" type="checkbox"/>	0.000	--

Reset Simulation ☒ Constant Delay Captured to: 0.000 s

**Play Controls**

[Pause] [Play] [Fast Forward]

**Event List Filters - Visible Events**

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

[Edit Filters](#) [Show All/None](#)

**PDU Information at Device: Laptop1**

**OSI Model**    **Outbound PDU Details**

At Device: Laptop1  
Source: Laptop1  
Destination: Broadcast

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3	Layer3
Layer2	Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3
Layer1	Layer 1: Port(s): FastEthernet0

1. The ARP process constructs a request for the target IP address.  
2. The device encapsulates the PDU into an Ethernet frame.

[Challenge Me](#)    [<< Previous Layer](#)    [Next Layer >>](#)

A livello 1 - Fisico: Il livello fisico si occupa della trasmissione dei dati al livello più basso del modello ISO/OSI. Qui lo scambio avviene su cavi, come un filo di rame, o una fibra ottica. L'informazione proveniente dai livelli più alti del computer sorgente viene spaccettata ed inviata al livello fisico del ricevente sotto forma di «bit».

The screenshot displays a network simulation interface with two main panels. The left panel, titled 'PDU Information at Device: Laptop1', shows the 'Outbound PDU Details' tab. It lists the source as 'Laptop1' and the destination as 'Broadcast'. The 'In Layers' list includes Layer7 through Layer1, while the 'Out Layers' list includes Layer7 through Layer1, with Layer1 highlighted. Below the layers, it states '1. FastEthernet0 sends out the frame.' The right panel, titled 'Simulation Panel', shows the 'Event List' with two entries at time 0.000. It includes a 'Reset Simulation' button, a 'Constant Delay' checkbox, and a 'Captured to' field. The 'Play Controls' section features play, pause, and stop buttons. The 'Event List Filters - Visible Events' section lists various protocols like ACL Filter, ARP, BGP, etc. The bottom of the interface has a status bar with 'Event List', 'Realtime', and 'Simulation' indicators.

Durante la comunicazione tra due computer, l'intero pacchetto del protocollo superiore (compreso di header e payload) diventa il payload del protocollo di livello inferiore. Questo meccanismo prende il nome di "incapsulamento".

PDU Information at Device: Laptop1

OSI Model Outbound PDU Details

PDU Formats

EthernetII			
PREAMBLE: 101010..10		DEST ADDR: FFFF.FFFF.FFFF	
SRC ADDR: 00E0.A3A5.C2A2	E: 0x0806	DATA (VARIABLE LENGTH)	FCS: 0x00000000

Arp			
HARDWARE TYPE: 0x0001		PROTOCOL TYPE: 0x0800	
HLEN: 0x06	PLEN: 0x04	OPCODE: 0x0001	
SOURCE MAC: 00E0.A3A5.C2A2			
SOURCE IP: 192.168.100.2			
TARGET MAC: 0000.0000.0000			
TARGET IP: 192.168.100.3			

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
<input type="checkbox"/>	0.000	--
<input checked="" type="checkbox"/>	0.000	--
<input type="checkbox"/>	0.001	Laptop1

Reset Simulation ☒ Constant Delay Captured to: 0.001 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Primo pacchetto in uscita da Laptop1 in broadcast

## 2° : Viene inviato il pacchetto di controllo verso lo switch

Laptop1

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.3

Pinging 192.168.100.3 with 32 bytes of data:
```

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
<input type="checkbox"/>	0.000	--
<input checked="" type="checkbox"/>	0.000	--
<input type="checkbox"/>	0.001	Laptop1

Reset Simulation ☒ Constant Delay Captured to: 0.001 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

PDU Information at Device: Switch0

At Device: Switch0  
Source: Laptop1  
Destination: Broadcast

**OSI Model**   Inbound PDU Details   Outbound PDU Details

**In Layers**

Layer7  
Layer6  
Layer5  
Layer4  
Layer3

Layer 2: Ethernet II Header  
00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP  
Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3

Layer 1: Port FastEthernet0/2

**Out Layers**

Layer7  
Layer6  
Layer5  
Layer4  
Layer3

Layer 2: Ethernet II Header  
00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP  
Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3

Layer 1: Port(s): FastEthernet0/1  
FastEthernet0/3

1. This is a broadcast frame. The Switch sends out the frame to all ports in the same VLAN except the receiving port.

Challenge Me   << Previous Layer   Next Layer >>

Root

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	Laptop1

Reset Simulation   ☒ Constant Delay   Captured to: 0.001 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters   Show All/None

Event List   Realtime   Simulation

PDU Information at Device: Switch0

OSI Model   Inbound PDU Details   **Outbound PDU Details**

PDU Formats

**EthernetII**

0		4		8		Bytes	
PREAMBLE: 101010..10		:		DEST ADDR: FFFF.FFFF.FFFF		F	
SRC ADDR: 00E0.A3A5.C2A2		TYP E: 0x		DATA (VARIABLE LENGTH)		FCS: 0x00000000	

**ARP**

0		8		16		Bits	
HARDWARE TYPE: 0x0001				PROTOCOL TYPE: 0x0800			
HLEN: 0x06		PLEN: 0x04		OPCODE: 0x0001			
SOURCE MAC : 00E0.A3A5.C2A2							
				SOURCE IP : 192.168.100.2			
TARGET MAC: 0000.0000.0000							
				TARGET IP: 192.168.100.3			

Root

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	Laptop1

Reset Simulation   ☒ Constant Delay   Captured to: 0.001 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters   Show All/None

Event List   Realtime   Simulation

PDU Information at Device: Switch0

**OSI Model**   Inbound PDU Details   Outbound PDU Details

At Device: Switch0  
Source: Laptop1  
Destination: Broadcast

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3	Layer3
Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3	Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3
Layer 1: Port FastEthernet0/2	Layer 1: Port(s): FastEthernet0/1 FastEthernet0/3

1. FastEthernet0/2 receives the frame.

Challenge Me   << Previous Layer   Next Layer >>

Root [Icons] 12:40:30

**Simulation Panel**

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	Laptop1

Reset Simulation   ☒ Constant Delay   Captured to: 0.001 s

Play Controls

[Icons]

Event List Filters - Visible Events  
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters   Show All/None

Event List   Realtime   Simulation



PDU Information at Device: Switch0

At Device: Switch0  
Source: Laptop1  
Destination: Broadcast

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3	Layer3
Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3	Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3
Layer 1: Port FastEthernet0/2	Layer 1: Port(s): FastEthernet0/1 FastEthernet0/3

- The frame source MAC address does not exist in the MAC table of Switch. Switch adds a new MAC entry to its table.
- The frame destination MAC address is broadcast. The Switch processes the frame.
- The frame's destination MAC address matches the receiving port's MAC address, the broadcast address, or a multicast address.
- The device decapsulates the PDU from the Ethernet frame.
- The frame is an ARP frame. The ARP process processes it.
- The active VLAN interface is not up. The ARP process ignores the frame.

Challenge Me << Previous Layer Next Layer >>

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	Laptop1

Reset Simulation ☒ Constant Delay Captured to: 0.001 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

PDU Information at Device: Switch0

OSI Model Inbound PDU Details Outbound PDU Details

PDU Formats

Ethernet II

Bytes	
PREAMBLE: 101010..10	DEST ADDR: FFFF.FFFF.FFFF
SRC ADDR: 00E0.A3A5.C2A2	FCS: 0x00000000

ARP

Bits	
HARDWARE TYPE: 0x0001	PROTOCOL TYPE: 0x0800
HLEN: 0x06	PLEN: 0x04
SOURCE MAC: 00E0.A3A5.C2A2	
SOURCE IP: 192.168.100.2	
TARGET MAC: 0000.0000.0000	
TARGET IP: 192.168.100.3	

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	Laptop1

Reset Simulation ☒ Constant Delay Captured to: 0.001 s

Play Controls

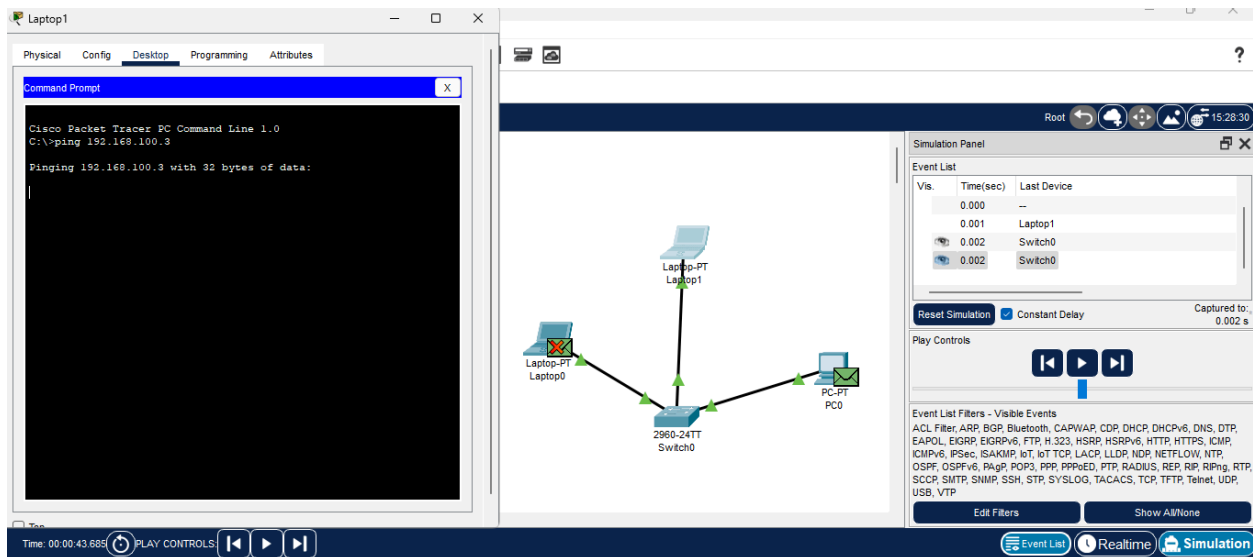
Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

**3°: Viene inviato in broadcast ad entrambe le macchine, per verificare quale sia quella corretta**



PDU Information at Device: PC0

At Device: PC0  
Source: Laptop1  
Destination: Broadcast

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3	Layer3
Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3	Layer 2: Ethernet II Header 0001.435A.C157 >> 00E0.A3A5.C2A2 ARP Packet Src. IP: 192.168.100.3, Dest. IP: 192.168.100.2
Layer 1: Port FastEthernet0	Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.

Challenge Me << Previous Layer Next Layer >>

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.001	Laptop1
	0.002	Switch0
	0.002	Switch0

Reset Simulation ☒ Constant Delay Captured to: 0.002 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

PDU Information at Device: PC0

At Device: PC0  
Source: Laptop1  
Destination: Broadcast

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3	Layer3
Layer 2: Ethernet II Header 00E0.A3A5.C2A2 >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.2, Dest. IP: 192.168.100.3	Layer 2: Ethernet II Header 0001.435A.C157 >> 00E0.A3A5.C2A2 ARP Packet Src. IP: 192.168.100.3, Dest. IP: 192.168.100.2
Layer 1: Port FastEthernet0	Layer 1: Port(s): FastEthernet0

1. The frame's destination MAC address matches the receiving port's MAC address, the broadcast address, or a multicast address.  
2. The device decapsulates the PDU from the Ethernet frame.  
3. The frame is an ARP frame. The ARP process processes it.  
4. The ARP frame is a request.  
5. The ARP request's target IP address matches the receiving port's IP address.  
6. The ARP process updates the ARP table with received information.

Challenge Me << Previous Layer Next Layer >>

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.001	Laptop1
	0.002	Switch0
	0.002	Switch0

Reset Simulation ☒ Constant Delay Captured to: 0.002 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

PDU Information at Device: PC0

OSI Model

Inbound PDU Details

Outbound PDU Details

PDU Formats

EthernetII

0 4 8 Bytes

PREAMBLE: 101010..10

:

DEST ADDR: FFFF.FFFF.FFFF

SRC ADDR: 00E0.A3A5.C2A2

TYP E: 0x

DATA (VARIABLE LENGTH)

FCS: 0x00000000

Arp

0 8 16 Bits

HARDWARE TYPE: 0x0001

PROTOCOL TYPE: 0x0800

HLEN: 0x06

PLEN: 0x04

OPCODE: 0x0001

SOURCE MAC : 00E0.A3A5.C2A2

SOURCE IP : 192.168.100.2

TARGET MAC: 0000.0000.0000

TARGET IP: 192.168.100.3

Root

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.001	Laptop1
	0.002	Switch0
	0.002	Switch0

Reset Simulation

☒ Constant Delay

Captured to: 0.002 s

Play Controls

⏮

⏪

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⏭

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Si conclude qui l'esercizio