

I screenshot rappresentano il procedimento che avviene da LAPTOP-PT0
LAPTOP-PT2:

1. Generazione del Pacchetto:

Il Laptop-PT1 genera un pacchetto dati destinato all'indirizzo IP del Laptop-PT2.

2. Indirizzamento MAC:

Il sistema operativo del Laptop-PT1 utilizza l'indirizzo IP del Laptop-PT2 per ottenere il corrispondente indirizzo MAC.

Il pacchetto dati viene incapsulato in un frame Ethernet, con l'indirizzo MAC del Laptop-PT2 come destinazione.

3. Switch1:

Il frame Ethernet viene inviato al primo switch (Switch1) a cui è collegato il Laptop-PT1.

Switch1 esamina la tabella di indirizzamento MAC per determinare attraverso quale porta inviare il frame.

4. Interconnessione tra Switch1 e Router:

Switch1 invia il frame al router attraverso una delle sue porte.

Il router verifica la tabella di routing e instrada il frame verso la destinazione attraverso l'interfaccia collegata a Switch2.

5. Interconnessione tra Router e Switch2:

Il frame attraversa il collegamento tra il router e Switch2.

6. Switch2:

Switch2 riceve il frame e determina attraverso quale porta inoltrarlo in base all'indirizzo MAC di destinazione.

Switch2 inoltra il frame alla porta collegata al Laptop-PT2.

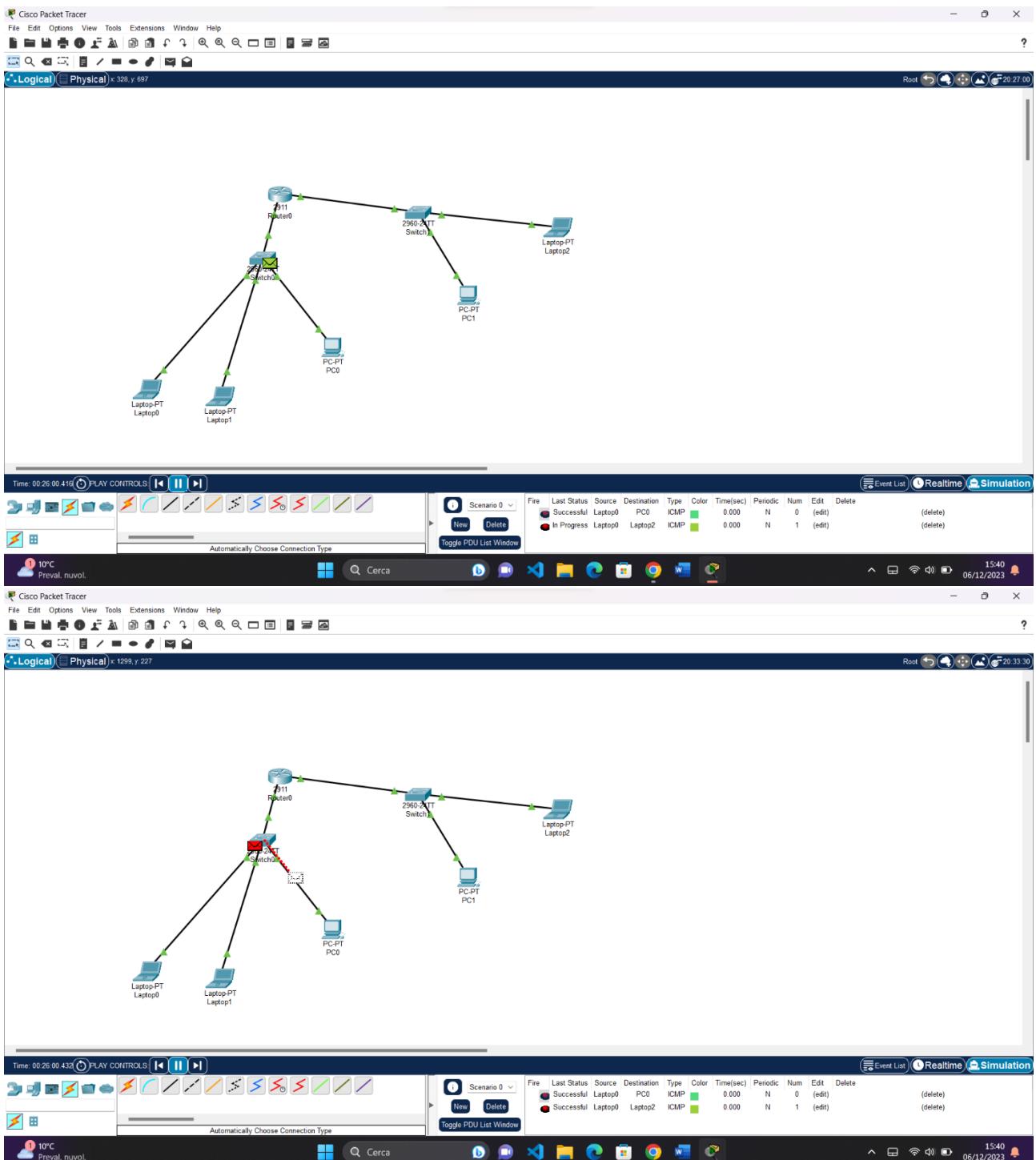
7. Laptop-PT2:

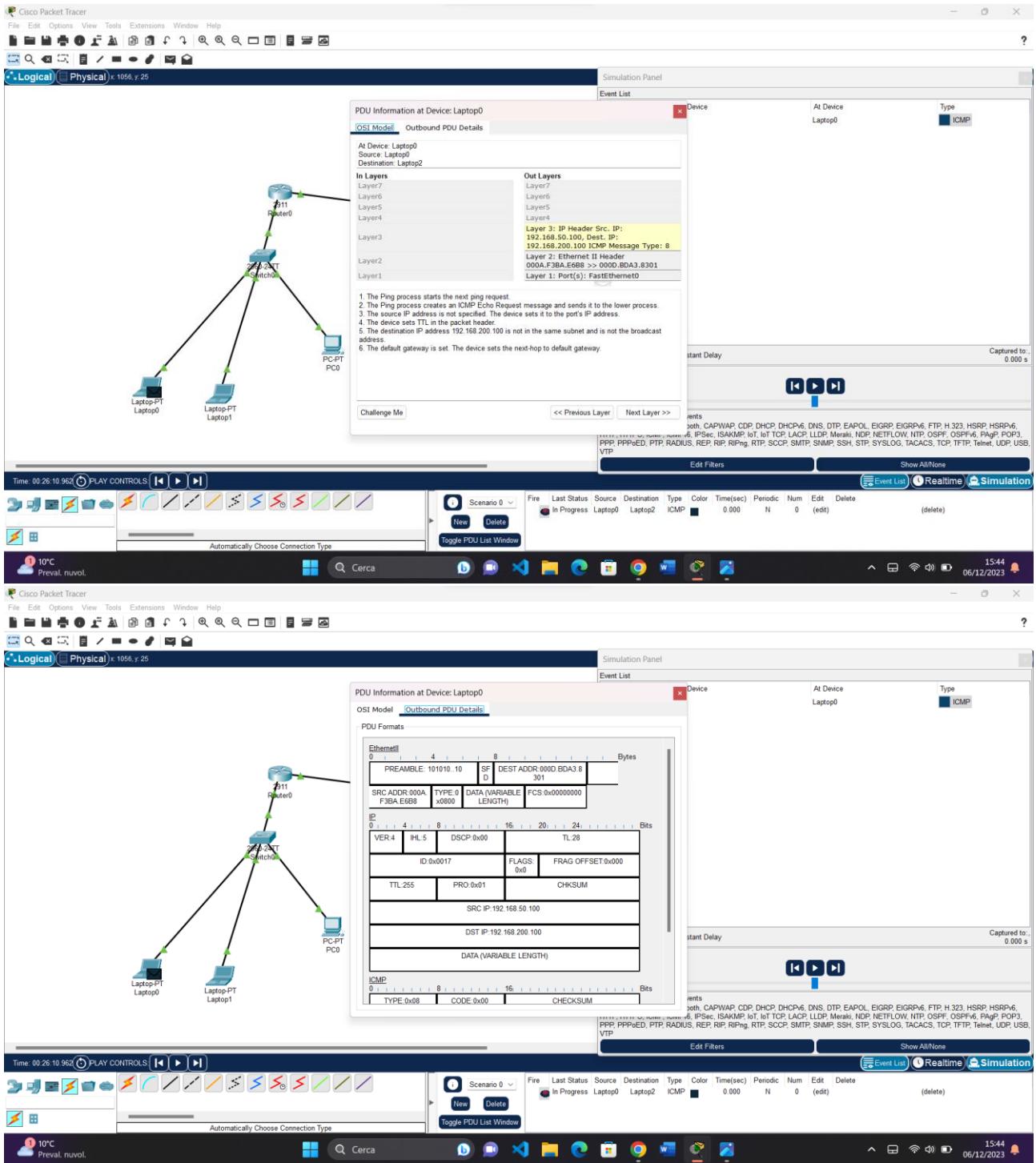
Il frame arriva al Laptop-PT2, che estrae il pacchetto dati originale.

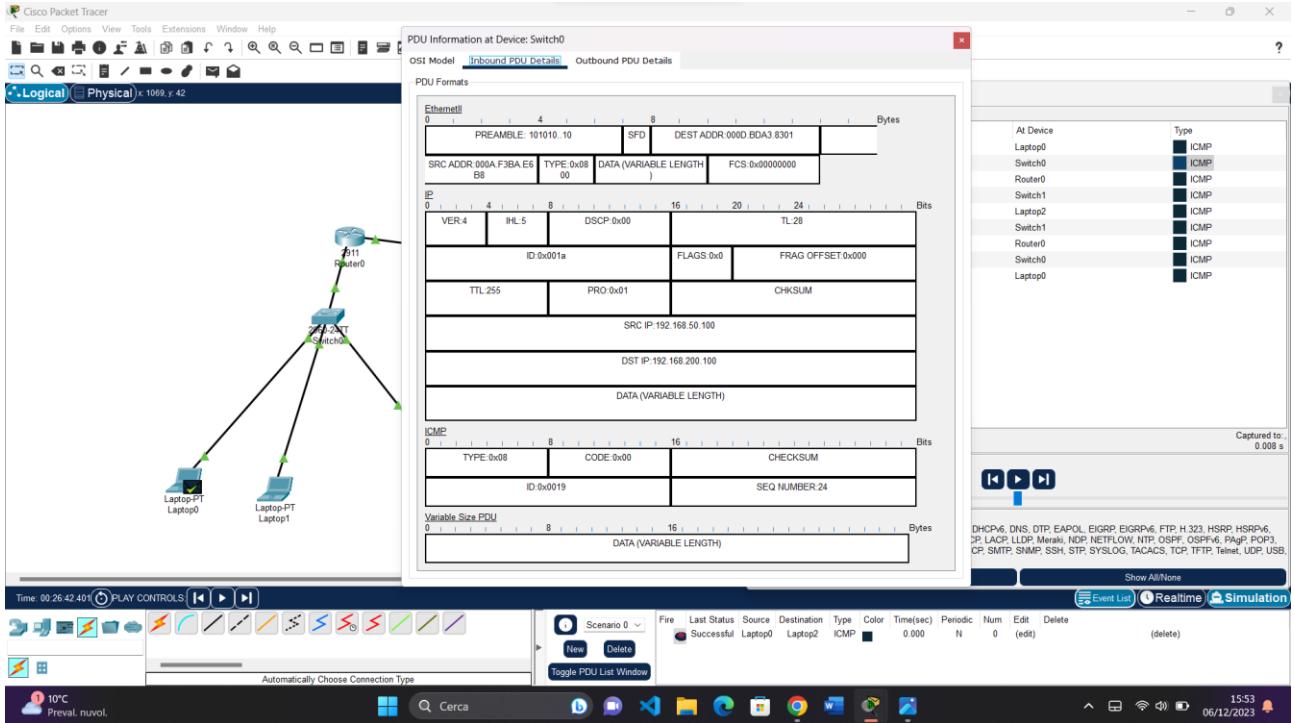
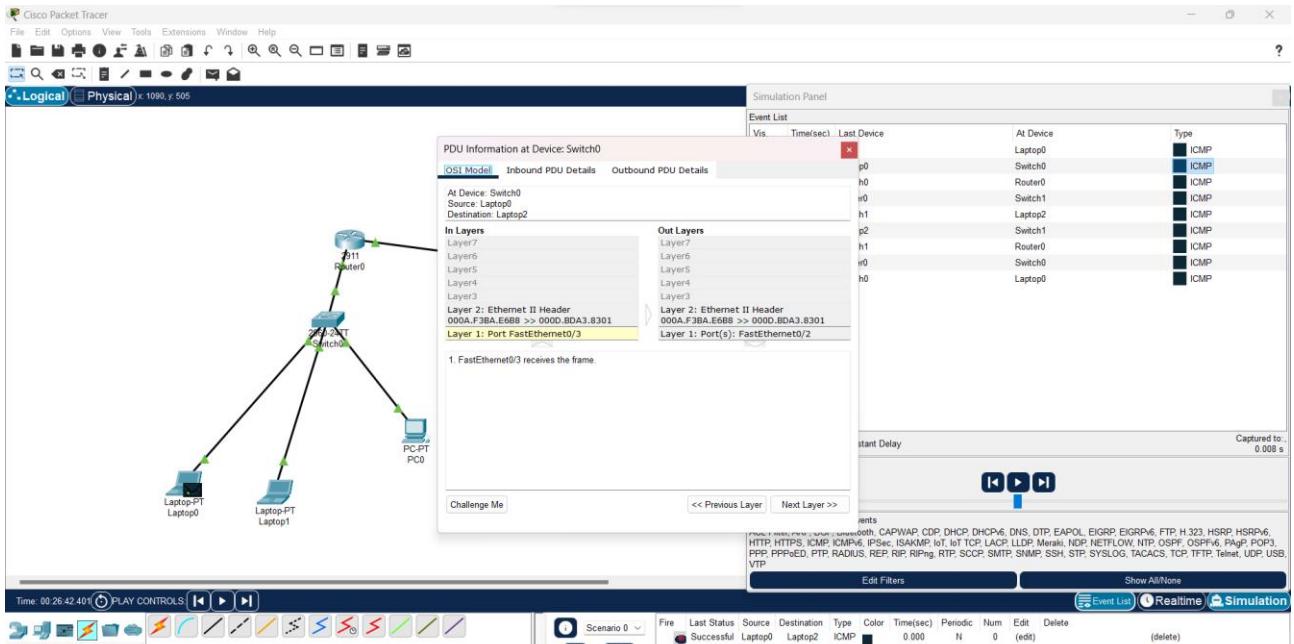
Il sistema operativo del Laptop-PT2 gestisce il pacchetto e lo passa al livello di applicazione, se necessario.

8. Generazione di Risposta (se applicabile):

Il Laptop-PT2 deve rispondere al Laptop-PT1, il processo si ripete, con il pacchetto dati originato da Laptop-PT2.







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PDU Information at Device: Switch0

OSI Model Inbound PDU Details Outbound PDU Details

PDU Formats

EthernetII

0	4	8	Bytes
PREAMBLE: 101010..10			
SFD			
DEST ADDR: 000D.BDA3.8301			
SRC ADDR: 000A.F3BA.E6	TYPE: 0x08	DATA (VARIABLE LENGTH)	FCS: 0x00000000
B8	00	()	

IP

0	4	8	16	20	24	Bits	
VER:4	IHL:5	DSCP:0x00	TL: 28				
ID: 0x001a		FLAGS: 0x0	FRAG OFFSET: 0x0000				
TTL: 255		PRO: 0x01	CHKSUM				
SRC IP: 192.168.50.100							
DST IP: 192.168.200.100							
DATA (VARIABLE LENGTH)							

ICMP

0	8	16	Bytes
TYPE: 0x08	CODE: 0x00	CHECKSUM	
ID: 0x0019		SEQ NUMBER: 24	

Variable Size PDU

0	8	16	Bytes
DATA (VARIABLE LENGTH)			

At Device

At Device	Type
Laptop0	ICMP
Switch0	ICMP
Router0	ICMP
Switch1	ICMP
Laptop2	ICMP
Switch1	ICMP
Router0	ICMP
Switch0	ICMP
Laptop0	ICMP

Captured to: 0.008 s

PLAY CONTROLS

Event List **Realtime** **Simulation**

Router0

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PDU Information at Device: Router0

OSI Model Inbound PDU Details Outbound PDU Details

PDU Formats

EthernetII

0	4	8	Bytes
PREAMBLE: 101010..10			
SFD			
DEST ADDR: 000D.BDA3.8301			
SRC ADDR: 000A.F3BA.E6B8	TYPE: 0x08	DATA (VARIABLE LENGTH)	FCS: 0x00000000
F3BA.E6B8	0000	()	

IP

0	4	8	16	20	24	Bits	
VER:4	IHL:5	DSCP:0x00	TL: 28				
ID: 0x001a		FLAGS: 0x0	FRAG OFFSET: 0x0000				
TTL: 255		PRO: 0x01	CHKSUM				
SRC IP: 192.168.50.100							
DST IP: 192.168.200.100							
DATA (VARIABLE LENGTH)							

ICMP

0	8	16	Bytes
TYPE: 0x08	CODE: 0x00	CHECKSUM	
ID: 0x0019		SEQ NUMBER: 24	

Variable Size PDU

0	8	16	Bytes
DATA (VARIABLE LENGTH)			

At Device

At Device	Type
Laptop0	ICMP
Switch0	ICMP
Router0	ICMP
Switch1	ICMP
Laptop2	ICMP
Switch1	ICMP
Router0	ICMP
Switch0	ICMP
Laptop0	ICMP

Constant Delay

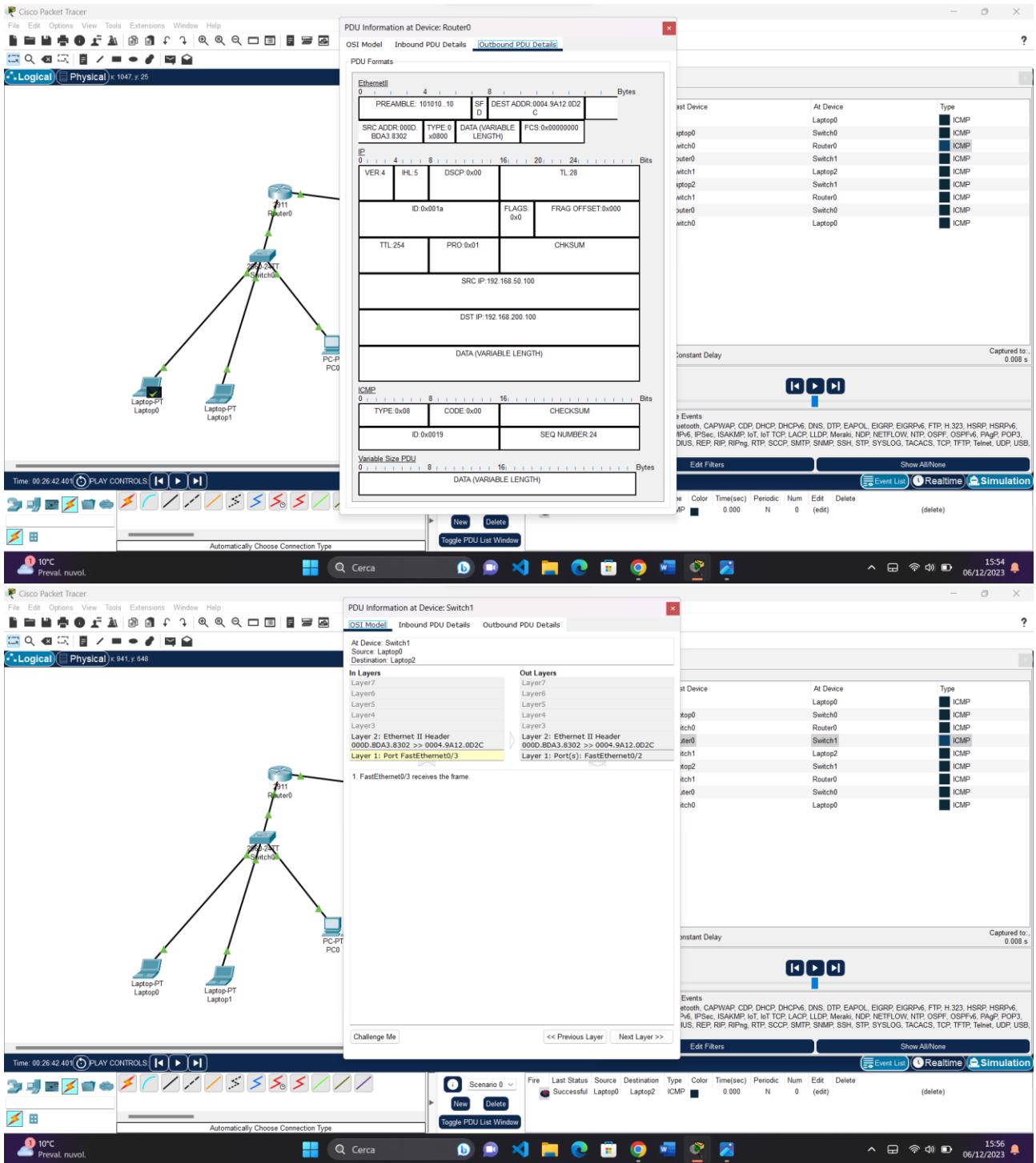
Event List **Realtime** **Simulation**

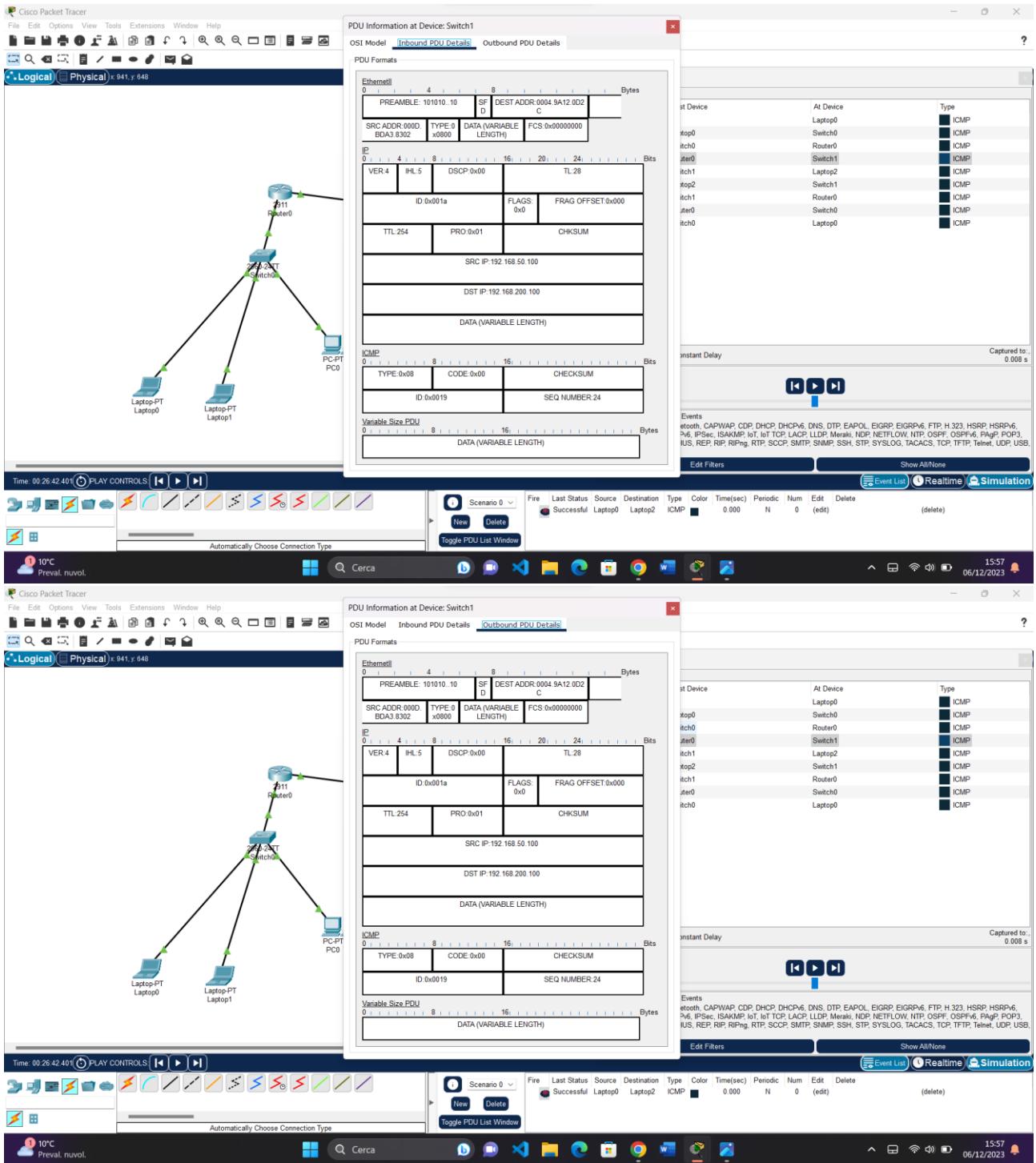
Router0

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PDU Information at Device: Laptop2

OSI Model Inbound PDU Details Outbound PDU Details

Logical Physical x 973.y 173

In Layers

- Layer7
- Layer6
- Layer5
- Layer4
- Layer 3: IP Header Src. IP: 192.168.50.100 Dest. IP: 192.168.200.100 ICMP Message Type: 8
- Layer 2: Ethernet II Header 0000.BDAA.8302 >> 0004.9A12.002C
- Layer 1: Port FastEthernet0

Out Layers

- Layer7
- Layer6
- Layer5
- Layer4
- Layer 3: IP Header Src. IP: 192.168.200.100 Dest. IP: 192.168.50.100 ICMP Message Type: 0
- Layer 2: Ethernet II Header 0004.9A12.002C >> 0000.BDAA.8302
- Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame

Time: 00:26:42.40% PLAY CONTROLS [] [] []

Automatically Choose Connection Type Toggle PDU List Window

Last Device At Device Type

- Laptop0 Switch0 ICMP
- Switch0 Router0 ICMP
- Router0 Switch1 ICMP
- Switch1 Laptop2 ICMP
- Laptop2 Switch1 ICMP
- Switch1 Router0 ICMP
- Router0 Switch0 ICMP
- Switch0 Laptop0 ICMP

Constant Delay Captured to: 0.008 s

able Events Show All/None

Event List Realtime Simulation

Type Color Time(sec) Periodic Num Edit Delete

ICMP

Cisco Packet Tracer

PDU Information at Device: Laptop2

OSI Model Inbound PDU Details Outbound PDU Details

Logical Physical x 973.y 173

PDU Formats

Ethernet

PREAMBLE: 101010...10	SF D	DEST ADDR: 0004.9A12.002C	Bytes
SRC ADDR: 0000.BDAA.8302	TYPE: 0x0000	DATA (VARIABLE LENGTH)	FCS: 0x00000000

IP

VER: 4	IHL: 5	DSCP: 0x00	TTL: 255	Flags: 0x0	FRAG OFFSET: 0x000
ID: 0x001a	PRO: 0x01	CHKSUM			
TTL: 254	PRO: 0x01	CHKSUM			
SRC IP: 192.168.50.100					
DST IP: 192.168.200.100					
DATA (VARIABLE LENGTH)					

ICMP

TYPE: 0x08	CODE: 0x00	CHECKSUM
ID: 0x0019	SEQ NUMBER: 24	

Variable Size PDU

DATA (VARIABLE LENGTH)

Last Device At Device Type

- Laptop0 Switch0 ICMP
- Switch0 Router0 ICMP
- Router0 Switch1 ICMP
- Switch1 Laptop2 ICMP
- Laptop2 Switch1 ICMP
- Switch1 Router0 ICMP
- Router0 Switch0 ICMP
- Switch0 Laptop0 ICMP

Constant Delay

able Events Show All/None

Event List Realtime Simulation

Type Color Time(sec) Periodic Num Edit Delete

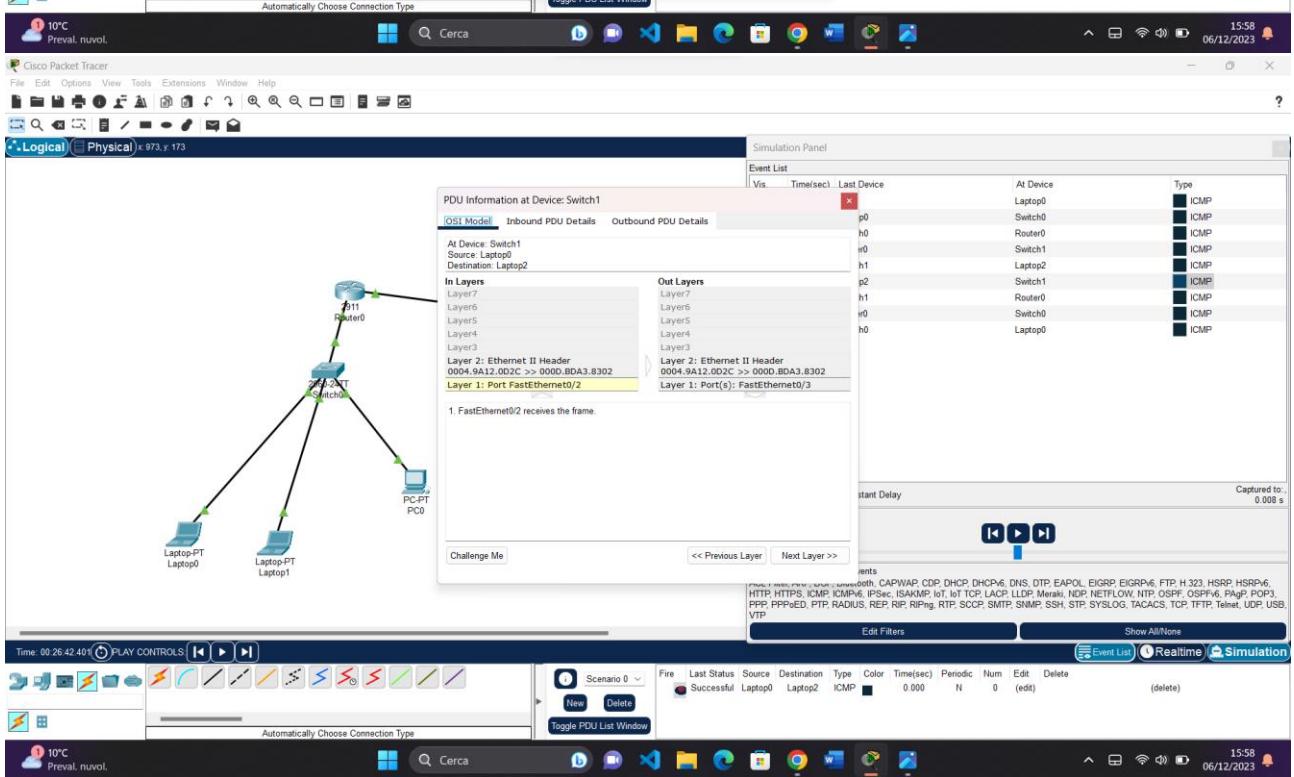
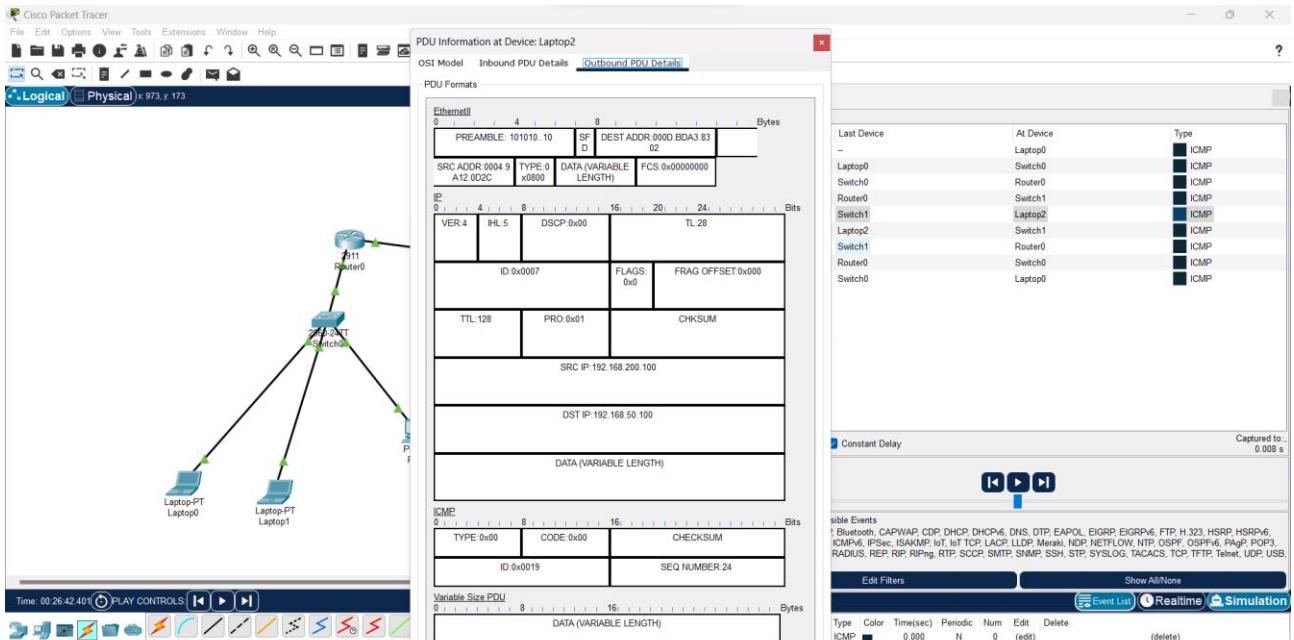
ICMP

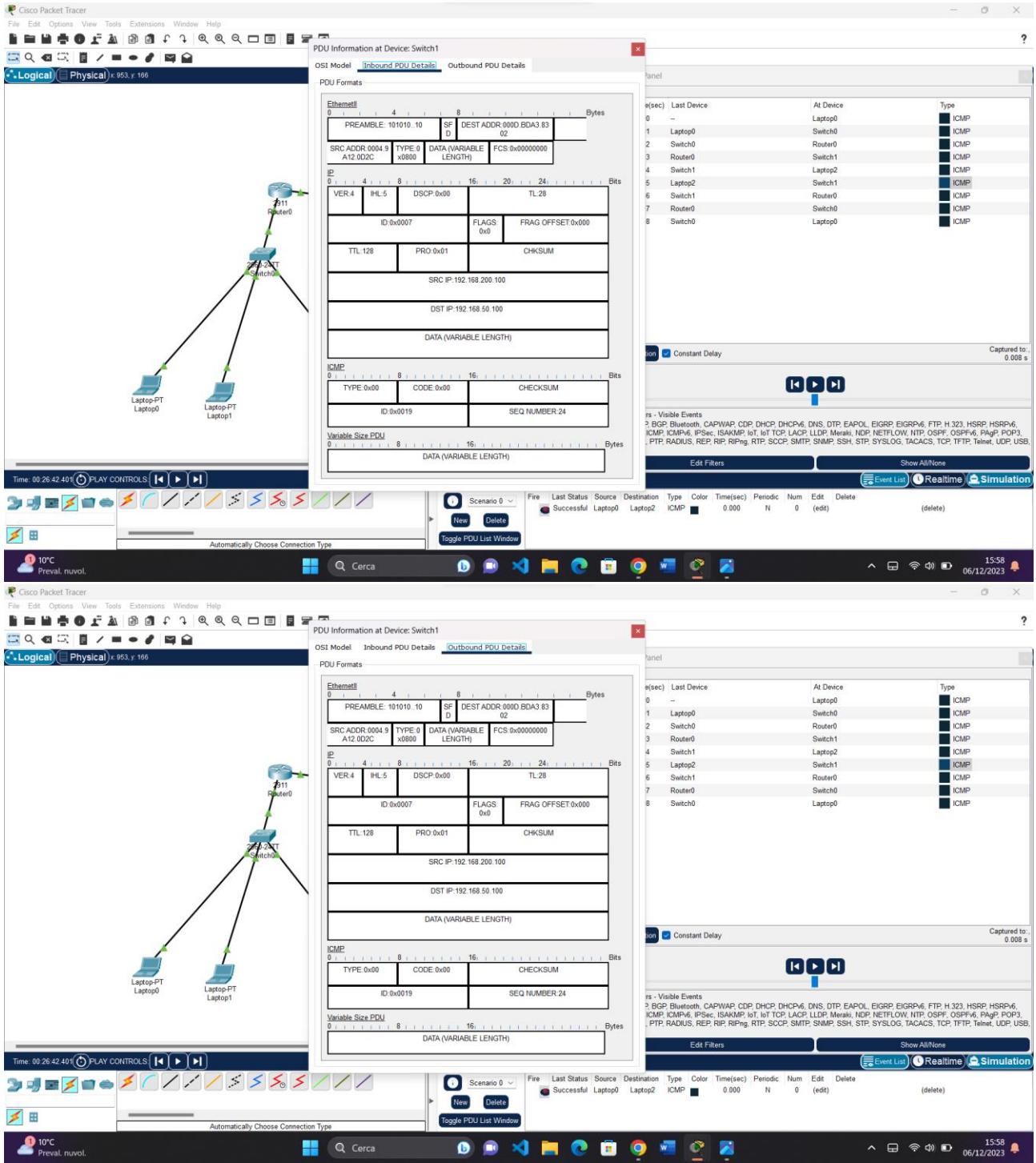
Strumento di cattura

Screenshot copiato negli Appunti e salvato Selezione qui per contrassegnare e condividere l'immagine

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Cisco Packet Tracer

PDU Information at Device: Switch1

OSI Model: Inbound PDU Details Outbound PDU Details

At Device: Switch1
Source: Laptop0
Destination: Laptop2

In Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer2: Ethernet II Header 0004.9A12.0D2C >> 0000.BDA3.8302
Layer 1: Port FastEthernet0/2

Out Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer2: Ethernet II Header 0004.9A12.0D2C >> 0000.BDA3.8302
Layer 1: Port(s): FastEthernet0/3

1. FastEthernet0/2 receives the frame.

Time: 00:26:42.40% PLAY CONTROLS [] [] []

Challenge Me << Previous Layer Next Layer >>

Automatically Choose Connection Type

Successful Laptop0 Laptop2

Toggle PDU List Window

Constant Delay

Captured to: 0.008 s

ble Events: Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, ICMP, ICMP6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, Ping, POP3, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB.

Edit Filters Show All/None

Type Color Time(sec) Periodic Num Edit Delete

ICMP (edit) (delete)

Event List Realtime Simulation

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Cisco Packet Tracer

PDU Information at Device: Switch1

OSI Model: Inbound PDU Details Outbound PDU Details

POD Formats

EthernetII

PREAMBLE: 101010...10	4	8	Bytes
SRC ADDR: 0004.9A12.0D2C	12	SD	DEST ADDR: 0000.BDA3.8302
TYPE: 0x8000	DATA VARIABLE LENGTH	FCS: 0x00000000	

IP

VER: 4	HL: 5	DSCP: 0x00	TTL: 28
ID: 0x0007	FLAGS: 0x0	FRAG OFFSET: 0x000	
TTL: 128	PRO: 0x01	CHKSUM	
SRC IP: 192.168.200.100			
DST IP: 192.168.50.100			
DATA (VARIABLE LENGTH)			

ICMP

TYPE: 0x00	CODE: 0x00	CHECKSUM
ID: 0x0019	SEQ NUMBER: 24	

Variable Size PDU

DATA (VARIABLE LENGTH)

Last Device At Device Type

- Laptop0 Switch0 ICMP
- Switch0 Router0 ICMP
- Router0 Switch1 ICMP
- Switch1 Laptop2 ICMP
- Laptop2 Switch0 ICMP
- Switch0 Router0 ICMP
- Router0 Switch0 ICMP
- Switch0 Laptop0 ICMP

Constant Delay

ble Events: Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, ICMP, ICMP6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, Ping, POP3, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB.

Edit Filters

Show All/None

Type Color Time(sec) Periodic Num

ICMP (edit) (delete)

Event List Realtime Simulation

Strumento di cattura

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