

Pratica S2/L1: DHCP

Esercizio di oggi: Configurazione di un Server DHCP su Cisco Packet Tracer Obiettivo: Configurare un server DHCP per la distribuzione automatica degli indirizzi IP. Attività:

- Installare e configurare un server DHCP ✓ Cisco Packet Tracer).
- Configurare il server per assegnare indirizzi IP in un range specifico.

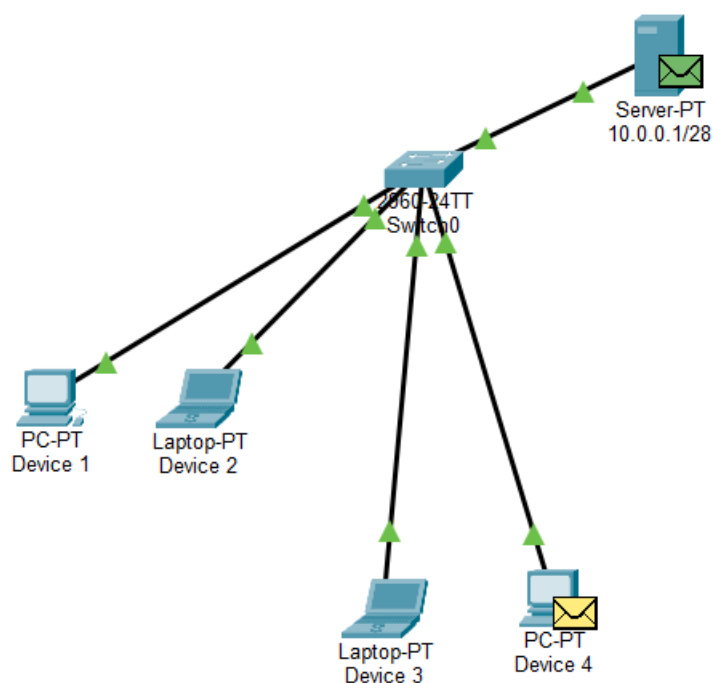
Topologico rete

Rete a Stella con 6 dispositivi di rete

1 Switch

1 Server

4 Hosts



Configurazione Server

Una volta scelto il Server si e' passato con la configurazione

Assegnazione IP statico al Server e Subnet Mask

10.0.0.1/28

Physical | Config | Services | Desktop | Programming | Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 10.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::20C:CFFF:FEAD:41D2

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

Nella configurazione dei servizi e' stato aggiunto un ServerPool, con un massimo di 512 hosts
l'indirizzo di partenza dei dispositivi che faranno parte della rete e 10.0.0.0.

Flag Service ON Fatto: il server ora distribuisce IP.

10.0.0.1/28

Physical | Config | **Services** | Desktop | Programming | Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP
- PRP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address: 10.0.0.0

Subnet Mask: 255.0.0.0

Maximum Number of Users: 512

TFTP Server: 0.0.0.0

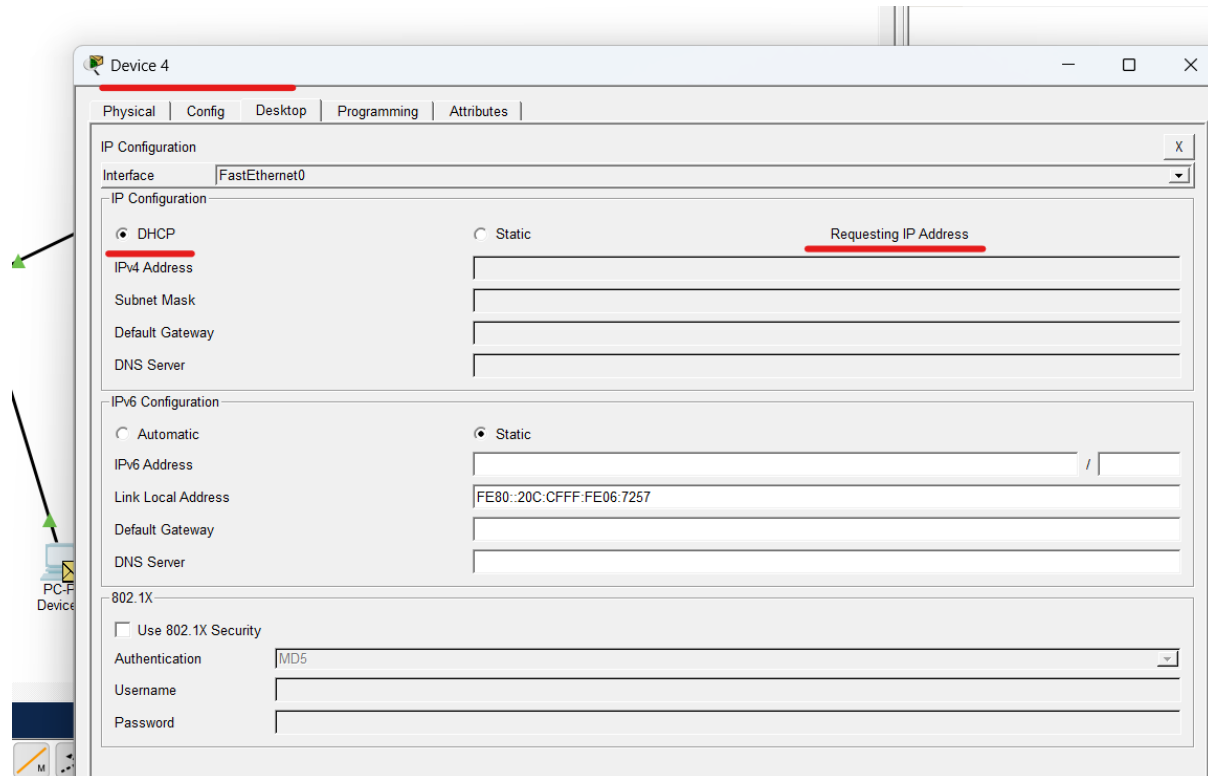
WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	10.0.0.0	255.0.0.0	512	0.0.0.0	0.0.0.0

Configurazione dei Client

Su ogni PC che si colleghera allarete bisognera → Desktop → IP Configuration → Attivare il **DHCP**.

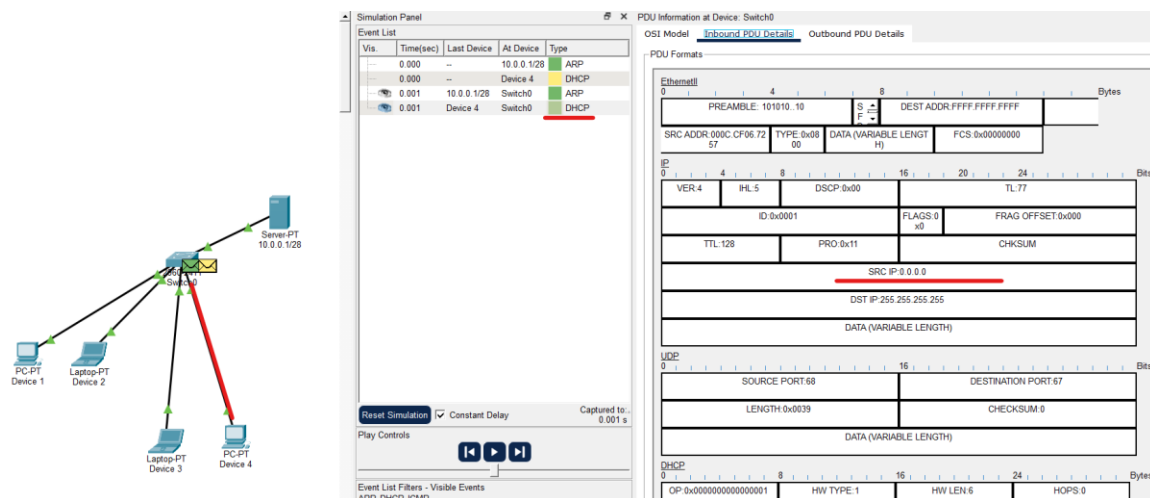


Simulazione

Prima di mettere in DHCP il device 4 ho eseguito il comando ipconfig e mi ha restituito come indirizzo ipv4 0.0.0.0

Alla fine del protocollo DHCP e ARP eseguendo nuovamente il comando ho ottenuto

Ipv4 10.0.0.2



Device 4

Physical | Config | Desktop | Programming | Attributes

Command Prompt

Cisco Packet Tracer PC Command Line 1.0

C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:

Link-local IPv6 Address.....: FE80::20C:CFFF:FE06:7257

IPv6 Address.....: ::

IPv6 Address.....: 0.0.0.0

Subnet Mask.....: 0.0.0.0

Default Gateway.....: ::

0.0.0.0

Bluetooth Connection:

Connection-specific DNS Suffix...:

Link-local IPv6 Address.....: ::

IPv6 Address.....: ::

IPv6 Address.....: 0.0.0.0

Subnet Mask.....: 0.0.0.0

Default Gateway.....: ::

0.0.0.0

C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:

Link-local IPv6 Address.....: FE80::20C:CFFF:FE06:7257

IPv6 Address.....: ::

IPv6 Address.....: 10.0.0.2

Subnet Mask.....: 255.0.0.0

Default Gateway.....: ::

0.0.0.0

Bluetooth Connection:

Connection-specific DNS Suffix...:

Link-local IPv6 Address.....: ::

IPv6 Address.....: ::

IPv6 Address.....: 0.0.0.0

Subnet Mask.....: 0.0.0.0

Default Gateway.....: ::

0.0.0.0

Root

Host	Last Device	At Device	Type
10.0.0.1/28	Switch0		DHCP
Switch0	Device 1		DHCP
Switch0	Device 2		DHCP
Switch0	Device 3		DHCP
Switch0	Device 4		DHCP
Device 4	Switch0		DHCP
Switch0	Device 1		DHCP
Switch0	Device 2		DHCP
Switch0	Device 3		DHCP
Switch0	10.0.0.1/28		DHCP
10.0.0.1/28	Switch0		DHCP
Switch0	Device 1		DHCP
Switch0	Device 2		DHCP
Switch0	Device 3		DHCP
Switch0	Device 4		DHCP
--	Device 4		ARP
Device 4	Switch0		ARP
Switch0	Device 1		ARP
Switch0	Device 2		ARP
Switch0	Device 3		ARP
Switch0	10.0.0.1/28		ARP
--	10.0.0.1/28		ICMP
--	10.0.0.1/28		ICMP

☒ Constant Delay

◀ ▶ ⏮ ⏭

- Visible Events

IP