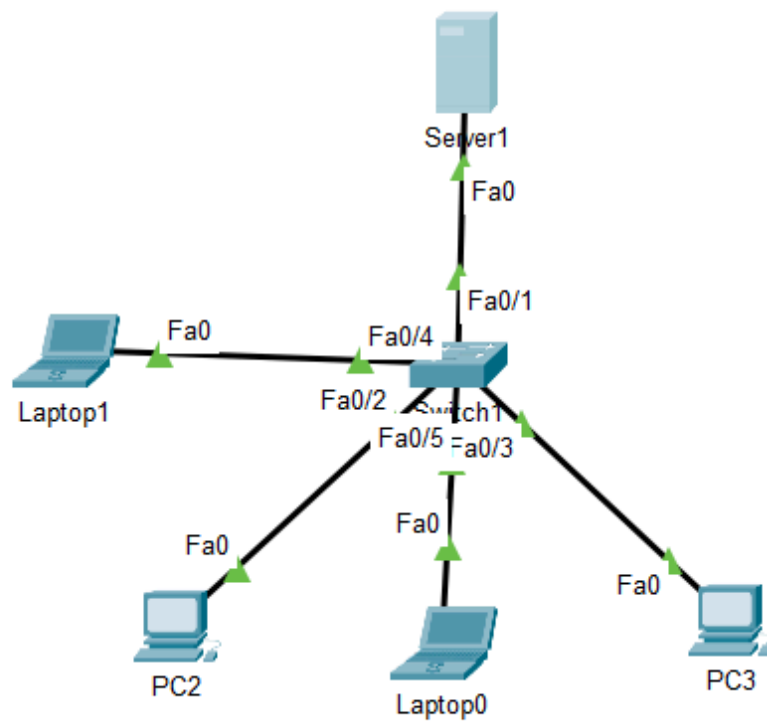


Configurazione di un Server DHCP su Cisco Packet Tracer

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 specific



Sul Server avremo le seguenti configurazioni
Impostiamo un IPV4 statico per il Server

The screenshot shows the 'Server1' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is expanded, showing settings for both IPv4 and IPv6. The IPv4 configuration is set to 'Static' with an address of 192.168.3.2, subnet mask of 255.255.255.0, and default gateway of 0.0.0.0. The IPv6 configuration is also set to 'Static' with a link local address of FE80::2D0:D3FF:FEB6:2378. The 802.1X section is also visible, showing 'Use 802.1X Security' is unchecked, and the authentication method is set to MD5.

Section	Option	Value
IP Configuration	<input type="radio"/> DHCP	
	<input checked="" type="radio"/> Static	
	IPv4 Address	192.168.3.2
	Subnet Mask	255.255.255.0
	Default Gateway	0.0.0.0
	DNS Server	0.0.0.0
IPv6 Configuration	<input type="radio"/> Automatic	
	<input checked="" type="radio"/> Static	
	IPv6 Address	
	Link Local Address	FE80::2D0:D3FF:FEB6:2378
	Default Gateway	
	DNS Server	
802.1X	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

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Sulle impostazioni DHCP del Server, dopo aver impostato il Gateway predefinito, si inserisce come indirizzo di partenza per l'assegnazione degli IP l'indirizzo 192.168.3.4 e un numero massimo di indirizzi assegnabili (Maximum Number of Users 10) per cui ai dispositivi che si collegano alla rete verranno assegnati IP dal 4 al 13

The screenshot shows the 'Services' tab in the 'Server1' configuration window. The 'DHCP' service is selected in the left sidebar. The main area displays the DHCP configuration for the 'FastEthernet0' interface, which is currently 'On'. The configuration includes a pool named 'serverPool' with a default gateway of 192.168.3.1 and a DNS server of 192.168.3.1. The start IP address is set to 192.168.3.4, and the subnet mask is 255.255.255.0. The maximum number of users is set to 10. The TFTP and WLC addresses are both 0.0.0.0. Below the configuration fields are 'Add', 'Save', and 'Remove' buttons. A table at the bottom lists the configured DHCP pool.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.3.1	192.168.3.1	192.168.3.4	255.255.255.0	10	0.0.0.0	0.0.0.0

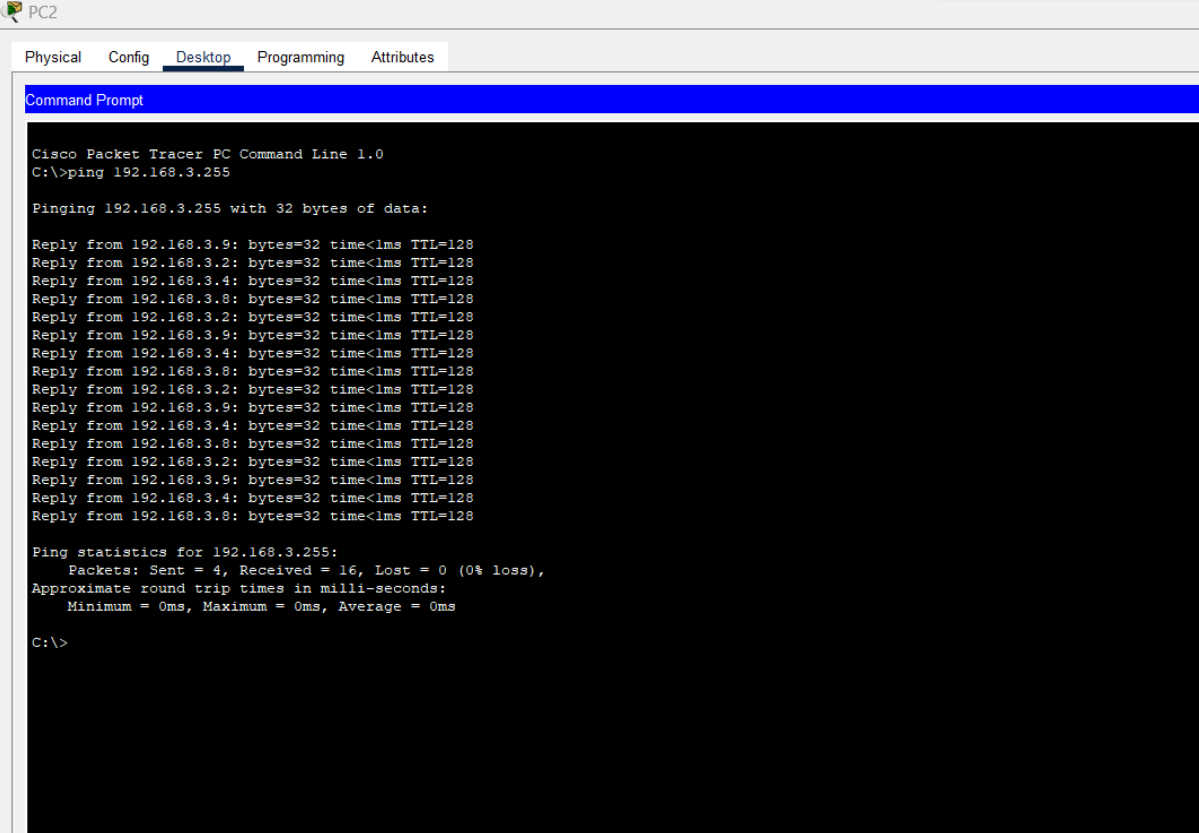
In ogni PC imposteremo come “regola” IP il DHCP

The screenshot shows the MikroTik WinBox interface for a device named 'Laptop1'. The 'Desktop' tab is active, and the 'IP Configuration' window is open for the 'FastEthernet0' interface. The 'IP Configuration' section has the 'DHCP' radio button selected, and the 'Static' radio button is unselected. The 'DHCP request successful.' message is displayed. The IPv4 Address is 192.168.3.4, Subnet Mask is 255.255.255.0, Default Gateway is 192.168.3.1, and DNS Server is 192.168.3.1. The 'IPv6 Configuration' section has the 'Static' radio button selected, and the 'Automatic' radio button is unselected. The IPv6 Address is empty, Link Local Address is FE80::20A:F3FF:FE69:1367, Default Gateway is empty, and DNS Server is empty. The '802.1X' section has the 'Use 802.1X Security' checkbox unselected, Authentication is MD5, Username is empty, and Password is empty. A 'Top' button is at the bottom left.

Interface	FastEthernet0
IP Configuration	
<input checked="" type="radio"/> DHCP	<input type="radio"/> Static
DHCP request successful.	
IPv4 Address	192.168.3.4
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.1
DNS Server	192.168.3.1
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::20A:F3FF:FE69:1367
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	

Si noterà l'immediata assegnazione automatica di un indirizzo IP.

Andando ad eseguire il ping da un dispositivo verso l'indirizzo di broadcast tutti i PC rispondono



The screenshot shows a Cisco Packet Tracer PC Command Prompt window for PC2. The window has tabs for Physical, Config, Desktop, Programming, and Attributes, with Desktop selected. The Command Prompt displays the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.3.255

Pinging 192.168.3.255 with 32 bytes of data:

Reply from 192.168.3.9: bytes=32 time<1ms TTL=128
Reply from 192.168.3.2: bytes=32 time<1ms TTL=128
Reply from 192.168.3.4: bytes=32 time<1ms TTL=128
Reply from 192.168.3.8: bytes=32 time<1ms TTL=128
Reply from 192.168.3.2: bytes=32 time<1ms TTL=128
Reply from 192.168.3.9: bytes=32 time<1ms TTL=128
Reply from 192.168.3.4: bytes=32 time<1ms TTL=128
Reply from 192.168.3.8: bytes=32 time<1ms TTL=128
Reply from 192.168.3.2: bytes=32 time<1ms TTL=128
Reply from 192.168.3.9: bytes=32 time<1ms TTL=128
Reply from 192.168.3.4: bytes=32 time<1ms TTL=128
Reply from 192.168.3.8: bytes=32 time<1ms TTL=128
Reply from 192.168.3.2: bytes=32 time<1ms TTL=128
Reply from 192.168.3.9: bytes=32 time<1ms TTL=128
Reply from 192.168.3.4: bytes=32 time<1ms TTL=128
Reply from 192.168.3.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.3.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```