

Tutorial introductorio de Packet Tracer. El Simulador de red.



Parte 1

- Descargar última versión de Cisco Networking Academy:
- Utiliza tu usuario y contraseña para la descarga.
- Inicia Packet Tracer. Introduce tus credenciales de nuevo.

The screenshot shows the Cisco Networking Academy website in Spanish. The browser's address bar displays <https://www.netacad.com/es/>. The page features a dark green header with the text "Programa de tiempo de inactividad - Marzo de 2025" and "Viernes 28 de marzo de 2025 de 5:30 p. m. a 8:30 p. m. PST (UTC-7)...". Below the header, there are two tabs: "NetAcad" and "Legacy NetAcad". The main content area is divided into two sections: "Catálogo de formación" and "Recursos para educadores". The "Recursos para educadores" section is highlighted with a red arrow and the text "1. Seleccionar Netacad.". Below this, there is a list of resources under the heading "POR TIPO DE RECURSO". The list includes "Acerca del programa", "Aprendizaje y enseñanza", "Herramientas y laboratorios de práctica", and "Desarrollo profesional para instructores". The "Herramientas y laboratorios de práctica" option is circled in blue, and a red arrow points to it with the text "2. Seleccionar Herramientas". To the right of the resource list, there is a section titled "ACERCA DEL PROGRAMA" with a description and two resource cards. The first card is titled "Orientación del programa para educadores" and the second is titled "Orientación de la plataforma para educadores". A red arrow points from the "Herramientas y laboratorios de práctica" option to the "Orientación de la plataforma para educadores" card.

Aplicaciones Lugares

Aula Mentor | Aprendizaje x CENTRO VIRTUAL DE EDU x Cisco Networking Acaden x cyberops/01-Modulo12-A x +

← → ↻

https://www.netacad.com/es/

Paco PACOLOCAL Outlook Gmail Menéame AULESCCED NETACAD MENTOR DAZN EL PAÍS EL MUNDO 20 minutos Las Prov

NetAcad Legacy NetAcad

Programa de tiempo de inactividad - Marzo de 2025
- Viernes 28 de marzo de 2025 de 5:30 p. m. a 8:30 p. m. PST (UTC-7)...

Catálogo de formación Recursos para educadores

DESCARGA PACKET TRACER

ACERCA DEL PROGRAMA

Encuentre recursos, como módulos de orientación, documentos legales, herramientas de marketing, información de accesibilidad y más sobre los partners de ASC/ITC.

POR TIPO DE RECURSO

Acerca del programa >

Aprendizaje y enseñanza >

Herramientas y laboratorios de práctica >

Desarrollo profesional para instructores >

1. Seleccionar Netacad.

2. Seleccionar Herramientas

Recurso | Información del programa

Orientación del programa para educadores

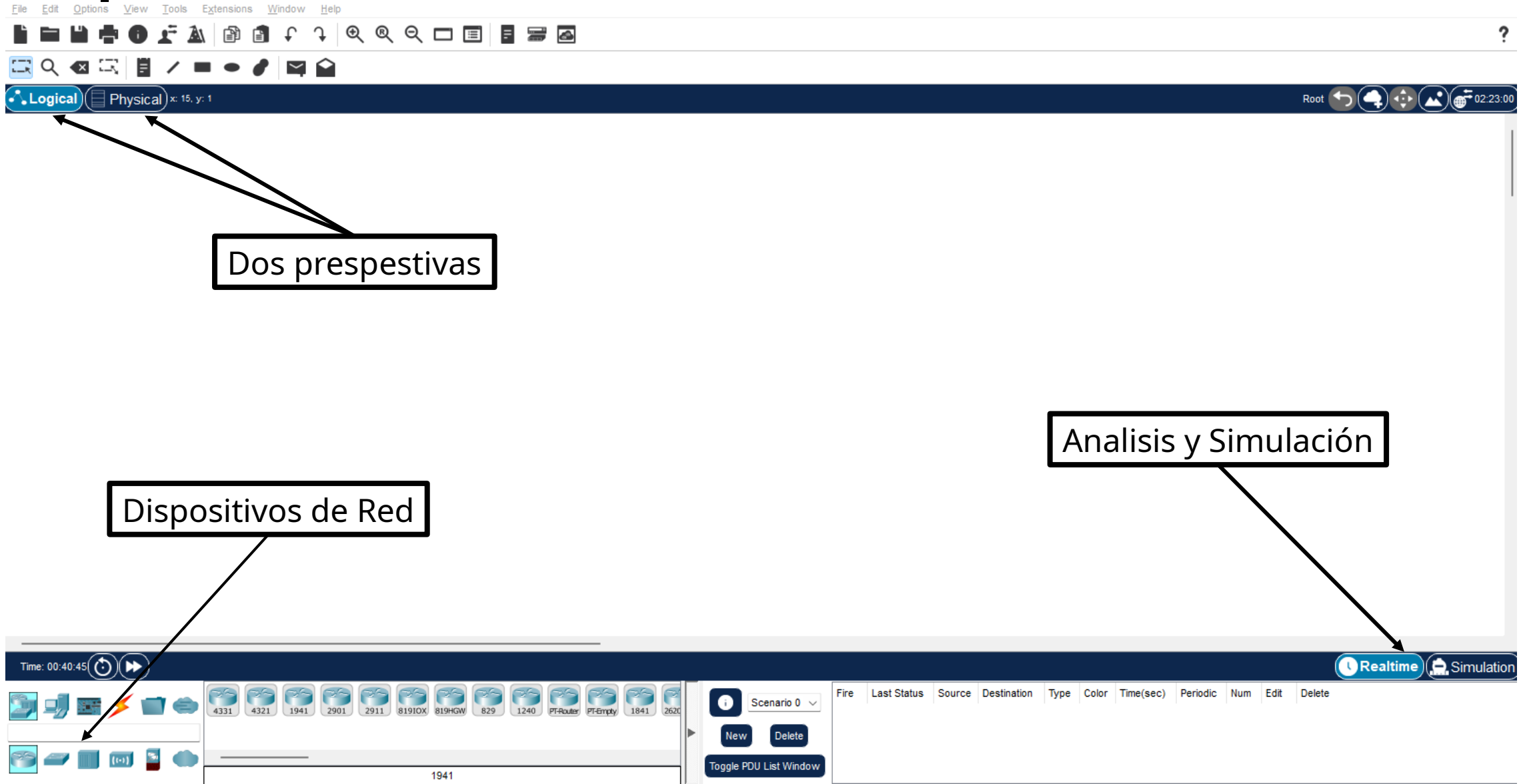
Utilice esta colección de aprendizaje para familiarizarse con el programa y la plataforma Cisco Networking Academy.

Recurso | Información del programa

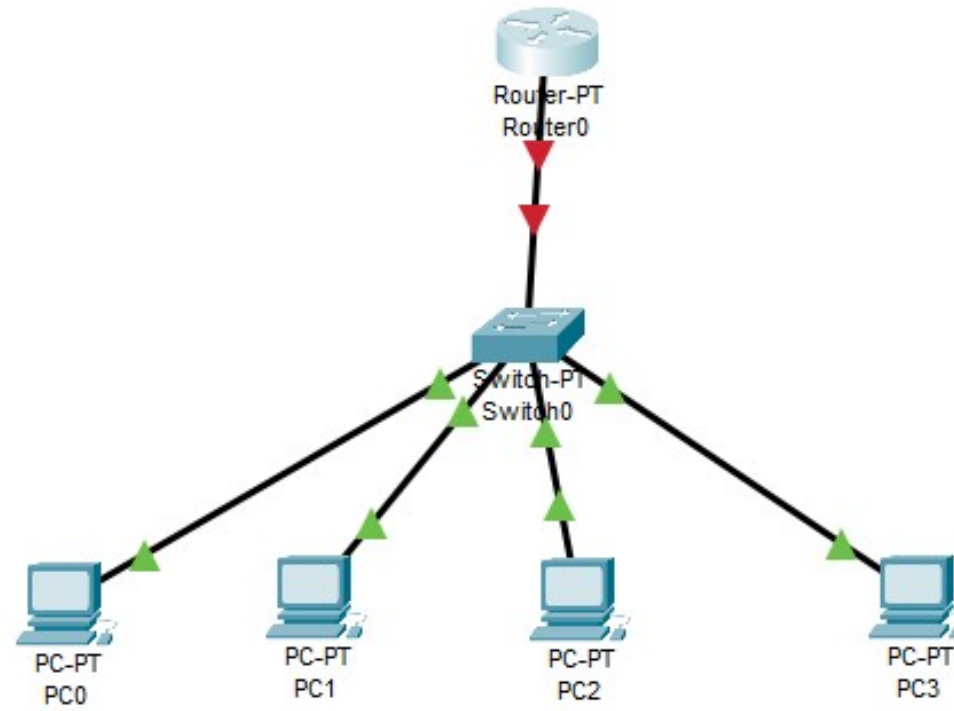
Orientación de la plataforma para educadores

Explore las principales funciones de la plataforma Cisco Networking Academy para educadores.

La primera visión de Packet Tracer



Conexión física de una LAN



1er Ejercicio. Configuración de red Estática. Menú Desktop

The screenshot shows the 'PC0' window in a network simulator. The 'Desktop' tab is selected, and the 'IP Configuration' window is open. The 'Interface' dropdown is set to 'FastEthernet0'. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IPv4 Address: 192.168.1.10, Subnet Mask: 255.255.255.0, Default Gateway: 192.168.1.1, and DNS Server: 8.8.8.8. Under 'IPv6 Configuration', the 'Static' radio button is also selected. The fields are: IPv6 Address (empty), Link Local Address: FE80::20D:BDFF:FE34:AADB, Default Gateway (empty), and DNS Server (empty). Under '802.1X', the 'Use 802.1X Security' checkbox is unchecked, and the 'Authentication' dropdown is set to 'MD5'. The 'Username' and 'Password' fields are empty. A 'Top' button is at the bottom left.

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.10

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 8.8.8.8

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::20D:BDFF:FE34:AADB

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

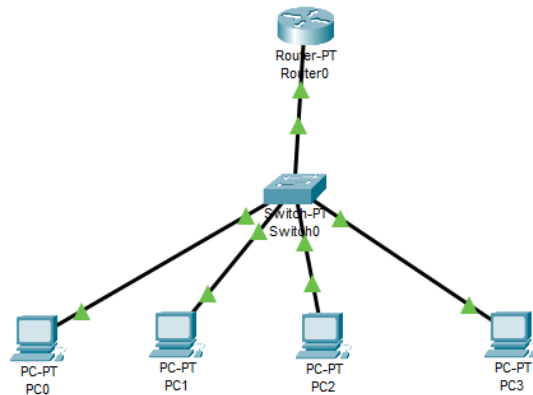
Username

Password

☐ Top

1er Ejercicio: Configuración de red estática

- Si es correcta la configuración de la dirección IP, la máscara y la puerta de enlace (Gateway) Once, los interfaces aparecen con un punto verde.



```
Command Prompt

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:
Physical Address.....: 000D.BD34.AADB
Link-local IPv6 Address.....: FE80::20D:BDFF:FE34:AADE
IPv6 Address.....: ::
IPv4 Address.....: 192.168.1.10
Subnet Mask.....: 255.255.255.0
Default Gateway.....: ::
                        192.168.1.1

DHCP Servers.....: 0.0.0.0
DHCPv6 IAID.....:
DHCPv6 Client DUID.....: 00-01-00-01-52-70-49-98-00-0D-BD-34-AA-DE
DNS Servers.....: ::
                        8.8.8.8

Bluetooth Connection:

Connection-specific DNS Suffix...:
Physical Address.....: 0001.425C.7648
Link-local IPv6 Address.....: ::
IPv6 Address.....: ::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::
                        0.0.0.0

DHCP Servers.....: 0.0.0.0
DHCPv6 IAID.....:
DHCPv6 Client DUID.....: 00-01-00-01-52-70-49-98-00-0D-BD-34-AA-DE
DNS Servers.....: ::
                        8.8.8.8

C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=4ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=4ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 2ms

C:\>
```

2do Ejercicio: Definir una red por DCHP

PC4

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP failed. APIPA is being used.

IPv4 Address 169.254.145.6

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::201:C9FF:FEA0:9106

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

2do Ejercicio: Definir una red por DCHP

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#interface FastEthernet1/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
ip address 192.168.2.1 255.255.255.0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#exit
Router(config)#ip dhcp pool xarxa
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
Router(dhcp-config)#default-r
Router(dhcp-config)#default-router 192.168.2.1
Router(dhcp-config)#dns
Router(dhcp-config)#dns-server 8.8.8.8
Router(dhcp-config)#exit
Router(config)#int Fa1/0
Router(config-if)#ip he
Router(config-if)#ip helpe
Router(config-if)#ip helper-address 192.168.2.1
Router(config-if)#exit
Router(config)#
```


Ejercicio 3: Interconectando redes

```
PC4
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=5ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 5ms, Average = 1ms

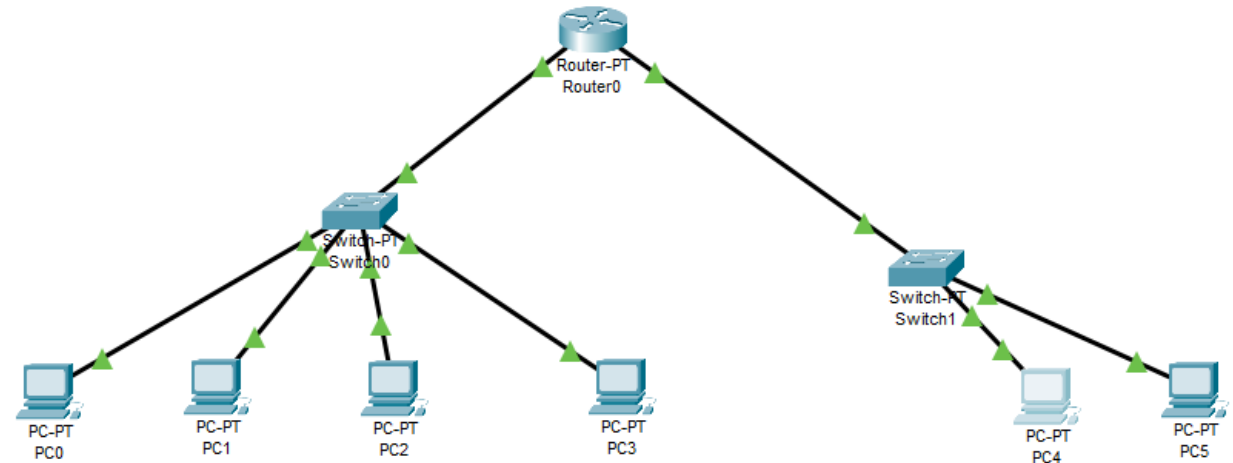
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```



Ejercicio 3: Interconectando redes

- Algunas veces necesita su tiempo para conectar todos los interfaces. Si veces que no funciona, apagaremos el router o reiniciare

