

GII TDRC

MEMORIA Práctica 1

Conceptos y topología

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Duración: 1 sesión

NOMBRE Y APELLIDOS	Carlos García Segura				
OPCIÓN	D	ISLA X	3	ISLA Y	7

IMPORTANTE: En base a los valores X e Y tendrá que calcular la opción de respuesta del guión de prácticas.
Para ello, tendrá que seguir la siguiente tabla:

OPCIÓN	VALOR X	VALOR Y
A	PAR	PAR
B	PAR	IMPAR
C	IMPAR	PAR
D	IMPAR	IMPAR

INSTRUCCIONES:

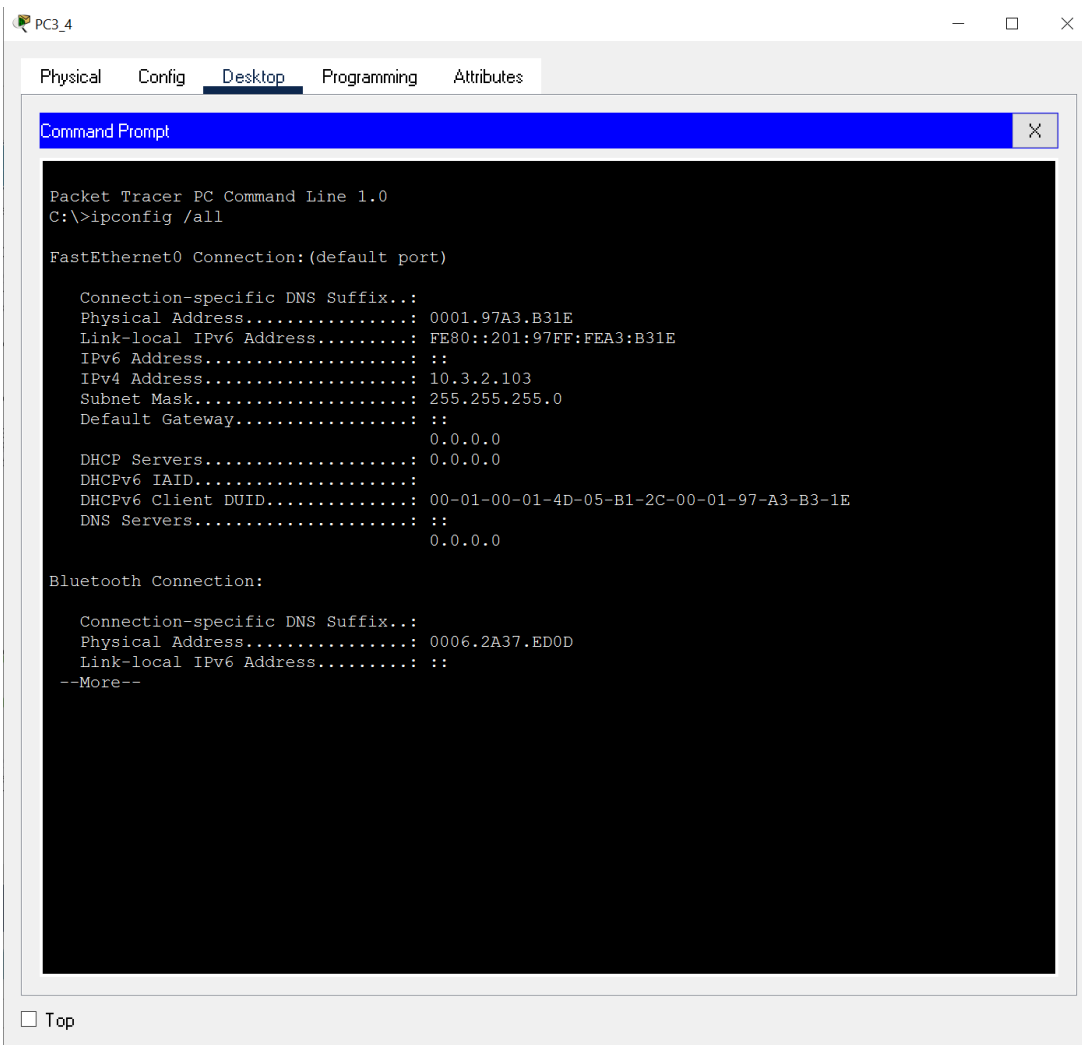
- Debe reemplazar por la respuesta correcta todo texto que aparezca de color rojo.
- Incluya capturas de pantalla de las configuraciones donde aparezca el símbolo de imagen (reemplace dicha imagen por la captura o capturas que necesite):



- Puede emplear la herramienta recortes en windows para realizar las capturas de pantalla o emplear el atajo **WINDOWS+IMPRIMIR_PANTALLA** y posteriormente pegar la captura en el documento.
- Puede emplear la herramienta Shutter en linux para realizar las capturas de pantalla.
- Puede emplear el atajo **COMANDO+MAYUSCULAS+4+BARRA_ESPACIADORA** en MAC para realizar las capturas de pantalla.

2. ACCESO AL PC

2. Comprobación con el comando ipconfig /all



```
PC3_4
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ipconfig /all

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix.:
Physical Address.: 0001.97A3.B31E
Link-local IPv6 Address.: FE80::201:97FF:FEA3:B31E
IPv6 Address.: ::
IPv4 Address.: 10.3.2.103
Subnet Mask.: 255.255.255.0
Default Gateway.: ::
0.0.0.0
DHCP Servers.: 0.0.0.0
DHCPv6 IAID.:
DHCPv6 Client DUID.: 00-01-00-01-4D-05-B1-2C-00-01-97-A3-B3-1E
DNS Servers.: ::
0.0.0.0

Bluetooth Connection:

Connection-specific DNS Suffix.:
Physical Address.: 0006.2A37.ED0D
Link-local IPv6 Address.: ::
--More--

Top
```

3. Default Gateway

El Default Gateway o Puerta de Enlace Predeterminada es un nodo que actua como enlace entre dos redes, en nuestro caso son los routers.

El numero de Puertas de enlace tiene relacion con el numero de redes ya que cada vez que se quieran conectar dos redes se necesita una puerta de enlace.

3. COMANDOS BÁSICOS DE DIAGNÓSTICO

1. Memoria FLASH Y NVRAM

show version

tiene 191 Kbytes de NVRAM y 63488Kbytes de Memoria Flash



1. Memoria FLASH Y NVRAM

R3_A

Physical Config CLI Attributes

IOS Command Line Interface

```
show version
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by pt_team

ROM: System Bootstrap, Version 12.3(8r)T8, RELEASE SOFTWARE (fc1)

System returned to ROM by power-on
System image file is "flash:c1841-advipservicesk9-mz.124-15.T1.bin"

This product contains cryptographic features and is subject to United
States and local country laws governing import, export, transfer and
use. Delivery of Cisco cryptographic products does not imply
third-party authority to import, export, distribute or use encryption.
Importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
export@cisco.com.

Cisco 1841 (revision 5.0) with 114688K/16384K bytes of memory.
Processor board ID FTX0947Z18E
M860 processor: part number 0, mask 49
2 FastEthernet/IEEE 802.3 interface(s)
191K bytes of NVRAM.
63488K bytes of ATA CompactFlash (Read/Write)

Configuration register is 0x2102

Router#
```

Ctrl+F6 to exit CLI focus

Copy Paste

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2. Fichero ISO

Show version

El fichero se llama "c1841-advipservicesk9-mz.124-15.T1.bin" y esta en la memoria flash



2. Fichero ISO

R3_A

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#show version
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by pt_team

ROM: System Bootstrap, Version 12.3(8r)T8, RELEASE SOFTWARE (fc1)

System returned to ROM by power-on
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to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
--More--
```

Ctrl+F6 to exit CLI focus

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3. Interfaces

Show interfaces

Tiene 3 interfaces: 2 FastEthernet, y la Vlan1 de tipo virtual

3. Interfaces

R3_A

Physical Config **CLI** Attributes

```
Router#show interface
FastEthernet0/0 is up, line protocol is up (connected)
  Hardware is Lance, address is 0003.e4d3.5d01 (bia 0003.e4d3.5d01)
  Internet address is 172.16.3.102/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is RJ45
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 input packets with dribble condition detected
    0 packets output, 0 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out
FastEthernet0/1 is up, line protocol is up (connected)
  Hardware is Lance, address is 0003.e4d3.5d02 (bia 0003.e4d3.5d02)
  Internet address is 10.3.1.101/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is RJ45
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    16 packets input, 2048 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 input packets with dribble condition detected
    8 packets output, 1024 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out
Vlan1 is administratively down, line protocol is down
  Hardware is CPU Interface, address is 0006.2ad5.ad86 (bia 0006.2ad5.ad86)
  MTU 1500 bytes, BW 100000 Kbit, DLY 1000000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 21:40:21, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1682 packets input, 530955 bytes, 0 no buffer
    Received 0 broadcasts (0 IP multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    563859 packets output, 0 bytes, 0 underruns
```

Ctrl+F6 to exit CLI focus

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4. Configuración Actual

Show running-config

4. Configuración Actual

 R3_APhysical Config CLI Attributes

```
Current configuration : 582 bytes
!
version 12.4
no service timestamps log datetime msec|
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
!
!
interface FastEthernet0/0
ip address 172.16.3.102 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
ip address 10.3.1.101 255.255.255.0
duplex auto
speed auto
!
interface Vlan1
no ip address
shutdown
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
```



4. FastEthernet0/0

show interface FastEthernet0/0

4. FastEthernet0/0

R3_A

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#sh int FastEthernet0/0
FastEthernet0/0 is up, line protocol is up (connected)
  Hardware is Lance, address is 0003.e4d3.5d01 (bia 0003.e4d3.5d01)
  Internet address is 172.16.3.102/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is RJ45
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 input packets with dribble condition detected
    0 packets output, 0 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out

Router#
Router#
```

Ctrl+F6 to exit CLI focus

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