Trabajo Práctico 7

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Consignas:

1)_ Configurar el nombre de cada router. Mostramos como ejemplo el router de San Luis:

```
Router>ena
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname ROUTER_SAN_LUIS
ROUTER_SAN_LUIS(config)#EXIT
ROUTER_SAN_LUIS#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_SAN_LUIS#
```

_ Mostramos además el router de Cordoba, y hacemos la misma configuración para los demás:

```
Router>ena
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname ROUTER_CBA
ROUTER_CBA(config)#exit
ROUTER_CBA#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER CBA#
```

2)_ Configurar con RIP el router dinámico. Mostramos como ejemplo el router de San Luis:

```
ROUTER_SAN_LUIS>ena
ROUTER_SAN_LUIS#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_SAN_LUIS(config)#router rip
ROUTER_SAN_LUIS(config-router)#version 2
ROUTER_SAN_LUIS(config-router)#network 170.20.10.0
ROUTER_SAN_LUIS(config-router)#network 20.10.10.0
ROUTER_SAN_LUIS(config-router)#exit
ROUTER_SAN_LUIS(config)#exit
ROUTER_SAN_LUIS#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_SAN_LUIS#
```

_ Mostramos además el router de Cordoba, y hacemos la misma configuración para los demás:

```
ROUTER_CBA>ena
ROUTER_CBA#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_CBA(config)#router rip
ROUTER_CBA(config-router)#version 2
ROUTER_CBA(config-router)#network 20.10.10.0
ROUTER_CBA(config-router)#network 10.10.10.0
ROUTER_CBA(config-router)#network 30.10.10.0
ROUTER_CBA(config-router)#network 40.20.10.0
ROUTER_CBA(config-router)#exit
ROUTER_CBA(config)#exit
ROUTER_CBA#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER CBA#
```

_ Para verificar la comunicación, hacemos varios ping de distintas PC hacia otras de distintas redes y corroborar que funcione correctamente:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	SL1	CUR2	ICMP		0.000	N	0	(edit)	
	Successful	BH1	M1	ICMP		0.000	N	1	(edit)	
	Successful	CH2	SL2	ICMP		0.000	N	2	(edit)	
	Successful	M1	CUR1	ICMP		0.000	N	3	(edit)	

3)_ Configurar un password: ASD al modo enable. Para esto, vamos a realizar la configuración en el router de Cordoba, a continuación vemos los pasos:

```
ROUTER_CBA>ena
ROUTER_CBA#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_CBA(config)#enable password 123
ROUTER_CBA(config)#exit
ROUTER_CBA#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER CBA#
```

_ Podemos observar ahora que cada vez que intentemos ingresar en modo enable nos va a solicitar la contraseña:

```
ROUTER_CBA>ena
Password:
ROUTER_CBA#
```

4)_ Configurar las siguientes ACL:

- La PC-SL1 no puede ver la red de Curitiba. A continuación realizamos la configuración en el router de San Luis (in), y luego probamos que este correctamente enviando un ping desde la PC 1 de San Luis a cualquiera de Curitiba:

```
ROUTER_SAN_LUIS>ena
ROUTER_SAN_LUIS#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_SAN_LUIS(config)#access-list 100 deny ip 170.20.10.1 0.0.0.0 190.20.10.0 0.0.0.255
ROUTER_SAN_LUIS(config)#access-list 100 permit ip any any
ROUTER_SAN_LUIS(config)#exit
ROUTER_SAN_LUIS#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER SAN LUIS#
```

```
ROUTER_SAN_LUIS>ena
ROUTER_SAN_LUIS#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_SAN_LUIS(config)#interface fastEthernet 0/0
ROUTER_SAN_LUIS(config-if)#ip access-group 100 in
ROUTER_SAN_LUIS(config-if)#exit
ROUTER_SAN_LUIS(config)#exit
ROUTER_SAN_LUIS#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_SAN_LUIS#
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Failed	SL1	CUR1	ICMP		0.000	N	0	(edit)	
	Failed	SL1	CUR2	ICMP		0.000	N	1	(edit)	

SL1

Physical Config Desktop Programming Attributes

Command Prompt

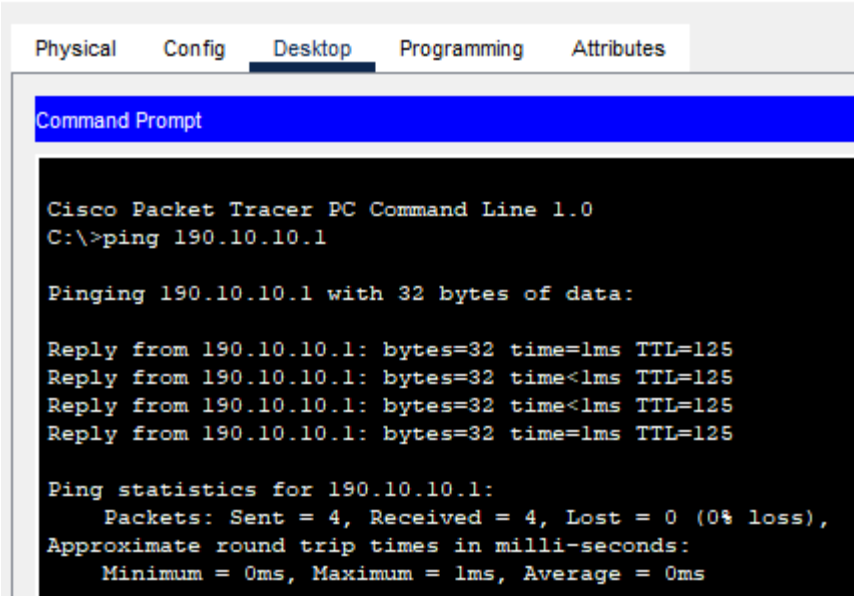
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 190.20.10.1

Pinging 190.20.10.1 with 32 bytes of data:

Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.

Ping statistics for 190.20.10.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 190.20.10.2

Pinging 190.20.10.2 with 32 bytes of data:

Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.
Reply from 170.20.10.10: Destination host unreachable.

Ping statistics for 190.20.10.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- Solo la PC-SL2 puede ver la red Belohorizonte. A continuación realizamos la configuración en el router de Brasil (out), y luego probamos que este correctamente enviando un ping desde la PC 2 de San Luis a cualquiera de Belohorizonte, y de forma inversa probamos que cualquier PC no pueda ver la red de Belohorizonte:

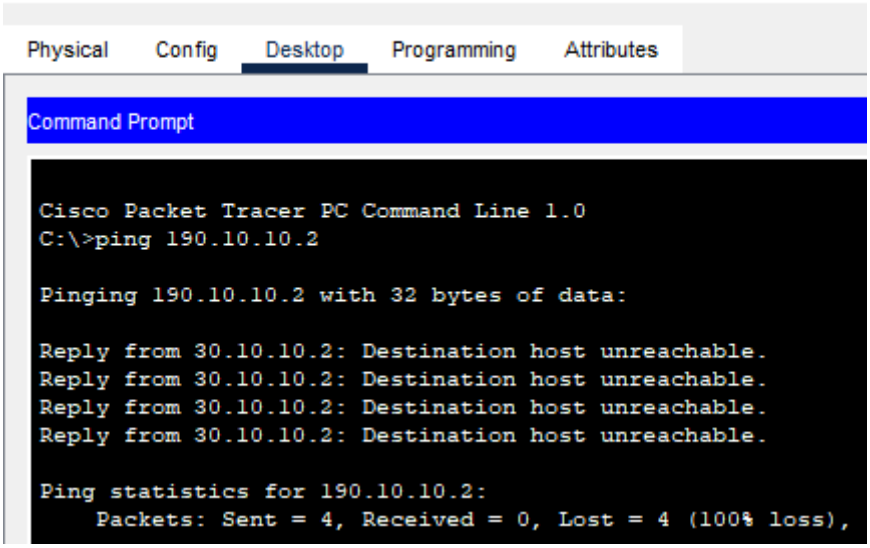
```
ROUTER_BRASIL>ena
ROUTER_BRASIL#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_BRASIL(config)#access-list 100 permit ip 170.20.10.2 0.0.0.0 190.10.10.0 0.0.0.255
ROUTER_BRASIL(config)#access-list 100 deny ip any any
ROUTER_BRASIL(config)#interface fastEthernet 1/0
ROUTER_BRASIL(config-if)#ip access-group 100 out
ROUTER_BRASIL(config-if)#exit
ROUTER_BRASIL(config)#exit
ROUTER_BRASIL#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_BRASIL#
```

	Successful	SL2	BH1	ICMP		0.000	N	0	(edit)	(delete)
	Successful	SL2	BH2	ICMP		0.000	N	1	(edit)	(delete)
	Failed	M1	BH1	ICMP		0.000	N	2	(edit)	(delete)
	Failed	SL1	BH1	ICMP		0.000	N	3	(edit)	(delete)

SL2



M2



- Las PC de la red de chile solo pueden ver la red de Misiones. A continuación realizamos la configuración en el router de Misiones (out), y luego probamos que este correctamente enviando un ping desde la PC 1 o 2 de Chile a cualquiera de Misiones, y luego probamos que no se pueden comunicar con otra red:

```
ROUTER_MISIONES>ena
ROUTER_MISIONES#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_MISIONES(config)#access-list 100 permit ip 180.10.10.1 0.0.0.0 170.10.10.0 0.0.0.255
ROUTER_MISIONES(config)#access-list 100 permit ip 180.10.10.2 0.0.0.0 170.10.10.0 0.0.0.255
ROUTER_MISIONES(config)#access-list 100 deny ip any any
ROUTER_MISIONES(config)#interface fastEthernet 0/0
ROUTER_MISIONES(config-if)#ip access-group 100 out
ROUTER_MISIONES(config-if)#exit
ROUTER_MISIONES(config)#exit
ROUTER_MISIONES#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_MISIONES#
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	CH1	M1	ICMP		0.000	N	0	(edit)	
	Successful	CH1	M2	ICMP		0.000	N	1	(edit)	
	Successful	CH2	M1	ICMP		0.000	N	2	(edit)	
	Successful	CH2	M2	ICMP		0.000	N	3	(edit)	

CH2

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 190.10.10.1

Pinging 190.10.10.1 with 32 bytes of data:

Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.

Ping statistics for 190.10.10.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

CH1

Physical Config Desktop Programming Attributes

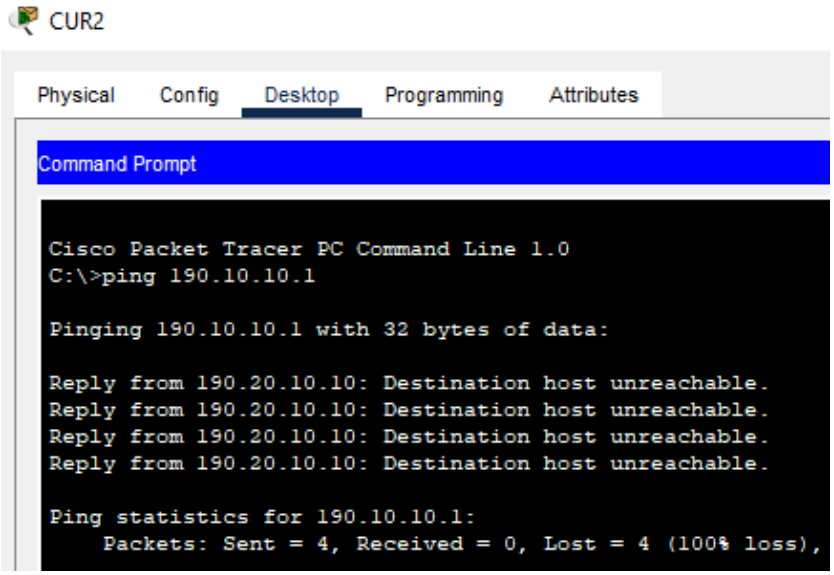
Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 170.20.10.1

Pinging 170.20.10.1 with 32 bytes of data:

Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.
Reply from 180.10.10.10: Destination host unreachable.

Ping statistics for 170.20.10.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- La red de Curitiba no puede ver la red de Belohorizonte. A continuación realizamos la configuración en el router de Brasil (in), y luego probamos que este correctamente enviando un ping desde cualquier PC de Belohorizonte a cualquiera de Curitiba:

```
ROUTER_BRASIL>ena
ROUTER_BRASIL#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_BRASIL(config)#access-list 101 deny ip 190.20.10.0 0.0.0.255 190.10.10.0 0.0.0.255
ROUTER_BRASIL(config)#access-list 101 permit ip any any
ROUTER_BRASIL(config)#interface fastEthernet 0/0
ROUTER_BRASIL(config-if)#ip access-group 101 in
ROUTER_BRASIL(config-if)#exit
ROUTER_BRASIL(config)#exit
ROUTER_BRASIL#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_BRASIL#
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Failed	CUR1	BH1	ICMP		0.000	N	0	(edit)	
	Failed	CUR1	BH2	ICMP		0.000	N	1	(edit)	
	Failed	CUR2	BH1	ICMP		0.000	N	2	(edit)	
	Failed	CUR2	BH2	ICMP		0.000	N	3	(edit)	



- La PC-CUR2 no puede hacer FTP a la PC-CHI3. A continuación realizamos la configuración en el router de Chile (out), y luego probamos que este correctamente enviando un FTP desde la PC 2 de Curitiba a la PC 3 de Chile y vemos que no se puede conectar, pero si se establece la conexión con ping:

```
ROUTER_CHILE>ena
ROUTER_CHILE#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER_CHILE(config)#access-list 101 deny tcp 190.20.10.2 0.0.0.0 180.10.10.3 0.0.0.0 eq 21
ROUTER_CHILE(config)#access-list 101 permit tcp any any
ROUTER_CHILE(config)#access-list 101 permit ip any any
ROUTER_CHILE(config)#interface fastEthernet 0/0
ROUTER_CHILE(config-if)#ip access-group 101 out
ROUTER_CHILE(config-if)#exit
ROUTER_CHILE(config)#exit
ROUTER_CHILE#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
ROUTER_CHILE#
```

```
C:\>ftp 180.10.10.3
Trying to connect...180.10.10.3

%Error opening ftp://180.10.10.3/ (Timed out)
.



(Disconnecting from ftp server)
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	CUR2	CH3	ICMP		0.000	N	0	(edit)	

_ Para que la conexión FTP sea exitosa, se debe configurar un servidor y no una PC, es por eso que al hacer FTP de cualquier PC a otra va a tirar un error “Ftp peer reset”.

- Excepto estas reglas todas deben verse con todas.