

# Esercizio L8 pre-verifica con doppio svolgimento.

## **1) Realizzare una rete scolastica che consenta di:**

a) collegare ad internet:

- due laboratori
- i computer degli uffici
- i computer della presidenza, della vicepresidenza e della biblioteca

b) creare archivi centralizzati di materiali didattici su di un server in biblioteca ed amministrativi su di un server nella Vicepresidenza, rendendoli disponibili alla consultazione in rete locale. Si dovrà consentire a tutto il personale della scuola ed agli studenti di consultare tali materiali dai PC della rete locale

La dislocazione dei PC è la seguente:

- due in ciascun ufficio (segreteria didattica, segreteria amministrativa, ufficio personale, ufficio magazzino, ufficio tecnico)
- quattro nella biblioteca
- cinque in ciascuno dei due laboratori
- uno in presidenza e due in vicepresidenza

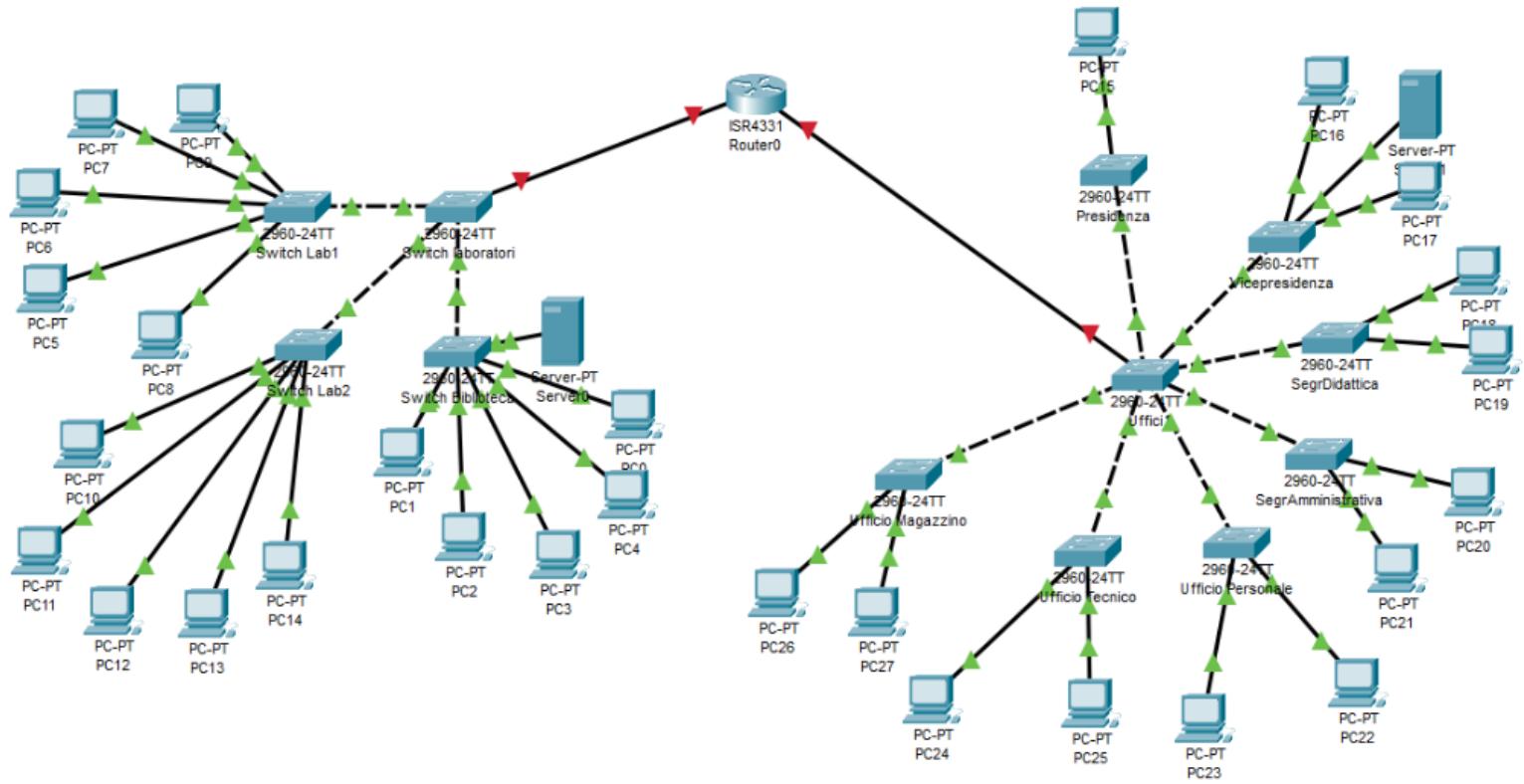
Andranno assegnati:

- gli indirizzi IP, le Subnet Mask ed i Gateway a tutti i dispositivi in cui sono necessari;
- i nomi appropriati ad ogni Switch e Router;
- gli indirizzi IP e le subnet mask alle porte del Router.

Ove possibile utilizzare la CLI.

Testare la connettività tra i vari dispositivi con l'apposito comando e riportarne i risultati commentati.

# Struttura della rete scolastica da realizzare (1 Router):



## Componenti della Rete:

### Router:

- ISR4331 Router0 (posizionato al centro della rete, collegato a tutti gli switch, inclusi quelli degli uffici e dei laboratori, con collegamenti diretti agli switch degli uffici e dei laboratori)

### Switches:

- 2960-24TT Switch Laboratori (collegato agli switch del lab1, lab2 e della biblioteca)
- 2960-24TT Switch Lab1 (collegato a 5 PC nel laboratorio 1 e allo switch dei laboratori)
- 2960-24TT Switch Lab2 (collegato a 5 PC nel laboratorio 2 e allo switch dei laboratori)
- 2960-24TT Switch Biblioteca (collegato a 5 PC nella biblioteca, al Server-PT Server0 e allo switch dei laboratori)
- 2960-24TT Switch Presidenza (collegato a 1 PC nell'ufficio presidenza)

- 2960-24TT Switch Vicepresidenza (collegato a 2 PC nell'ufficio vicepresidenza e a Server-PT Server1)
- 2960-24TT Switch SegrDidattica (collegato a 2 PC nell'ufficio segreteria didattica)
- 2960-24TT Switch SegrAmministrativa (collegato a 2 PC nell'ufficio segreteria amministrativa)
- 2960-24TT Switch Ufficio Tecnico (collegato a 2 PC nell'ufficio tecnico)
- 2960-24TT Switch Ufficio Personale (collegato a 2 PC nell'ufficio del personale)
- 2960-24TT Switch Uffici (collegato agli switch di tutti gli uffici e al router)
- 2960-24TT Switch Ufficio Magazzino (collegato a 2 PC nell'ufficio del magazzino)

#### **Server:**

- Server-PT Server0 (collegato solo a 2960-24TT Switch Biblioteca)
- Server-PT Server1 (collegato a 2960-24TT Switch Vicepresidenza)

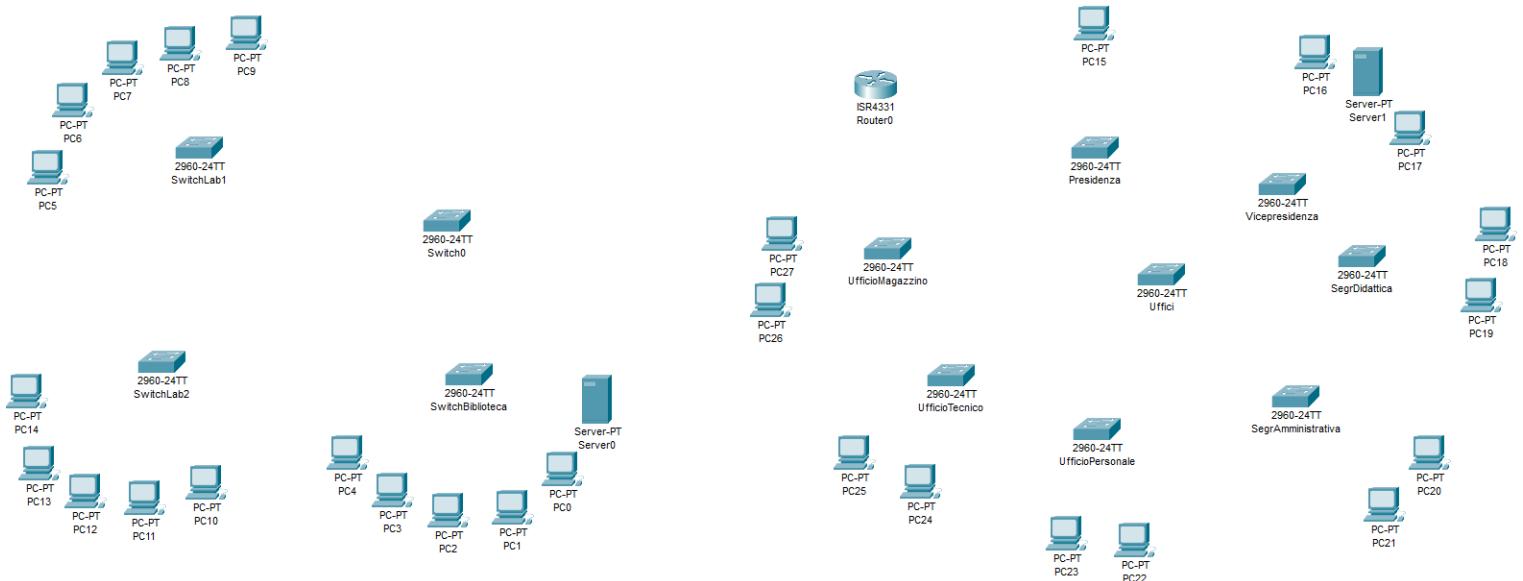
#### **PC:**

- PC-PT PC0: Biblioteca (Switch Biblioteca)
- PC-PT PC1: Biblioteca (Switch Biblioteca)
- PC-PT PC2: Biblioteca (Switch Biblioteca)
- PC-PT PC3: Biblioteca (Switch Biblioteca)
- PC-PT PC4: Biblioteca (Switch Biblioteca)
- PC-PT PC5: Lab1 (Switch Lab1)
- PC-PT PC6: Lab1 (Switch Lab1)
- PC-PT PC7: Lab1 (Switch Lab1)
- PC-PT PC8: Lab1 (Switch Lab1)
- PC-PT PC9: Lab1 (Switch Lab1)
- PC-PT PC10: Lab2 (Switch Lab2)
- PC-PT PC11: Lab2 (Switch Lab2)
- PC-PT PC12: Lab2 (Switch Lab2)
- PC-PT PC13: Lab2 (Switch Lab2)
- PC-PT PC14: Lab2 (Switch Lab2)
- PC-PT PC15: Presidenza (Switch Presidenza)
- PC-PT PC16: Vicepresidenza (Switch Vicepresidenza)
- PC-PT PC17: Vicepresidenza (Switch Vicepresidenza)

- PC-PT PC18: Segreteria Didattica (Switch Segreteria Didattica)
- PC-PT PC19: Segreteria Didattica (Switch Segreteria Didattica)
- PC-PT PC20: Segreteria Amministrativa (Switch Segreteria Amministrativa)
- PC-PT PC21: Segreteria Amministrativa (Switch Segreteria Amministrativa)
- PC-PT PC22: Ufficio Personale (Switch Ufficio Personale)
- PC-PT PC23: Ufficio Personale (Switch Ufficio Personale)
- PC-PT PC24: Ufficio Tecnico (Switch Ufficio Tecnico)
- PC-PT PC25: Ufficio Tecnico (Switch Ufficio Tecnico)
- PC-PT PC26: Ufficio Magazzino (Switch Ufficio Magazzino)
- PC-PT PC27: Ufficio Magazzino (Switch Ufficio Magazzino)

## Totale Dispositivi:

- **1 Router**
- **12 Switches**



- **2 Server**
- **28 PC**

**Totale:  $1 + 12 + 2 + 28 = 43$  dispositivi**

(disposizione iniziale)

## Cambiare i nomi agli Switch:

Per l'host name dello switch:

1. Fare clic sullo Switch (Switch0).
2. Nella finestra che si apre, andare alla scheda "CLI".
3. Inserire i seguenti comandi:
  4. enable
  5. configure terminal
  6. hostname SwitchLaboratori
  7. exit
  8. copy running-config startup-config (oppure "write memory")
  9. Al messaggio "Destination filename [startup-config]?" premere "Invio" (Enter)

The screenshot shows the Cisco Network Assistant interface for a device named 'Switch0'. The window has tabs for 'Physical', 'Config', 'CLI' (which is selected), and 'Attributes'. The main area is titled 'IOS Command Line Interface'. The terminal window displays the following text:

```
Switch con0 is now available

Press RETURN to get started.

Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SwitchLaboratori
SwitchLaboratori(config)#exit
SwitchLaboratori#
%SYS-5-CONFIG_I: Configured from console by console
copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
SwitchLaboratori#
```

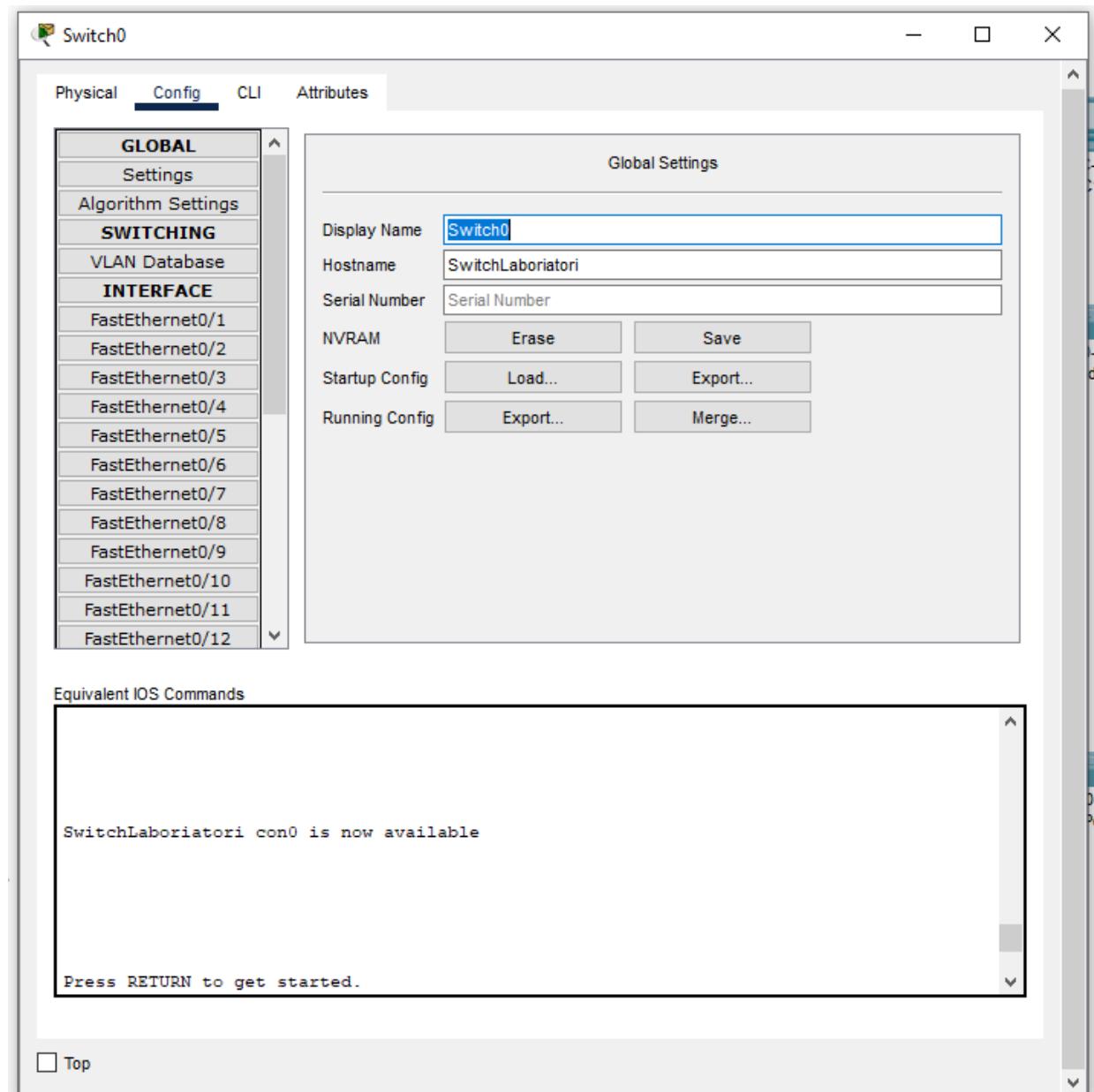
At the bottom of the terminal window, there are 'Copy' and 'Paste' buttons. Below the terminal window, there is a checkbox labeled 'Top'.

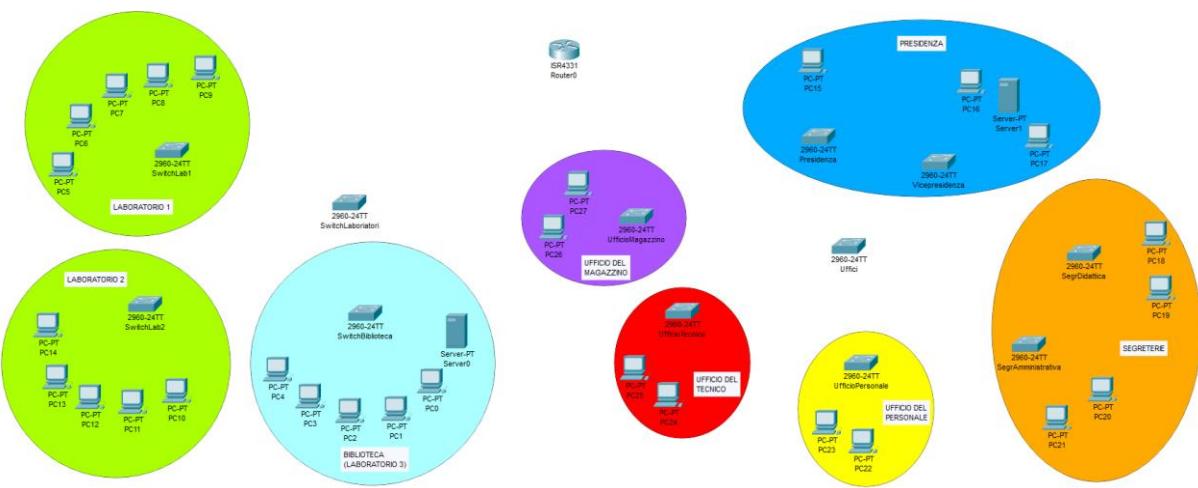
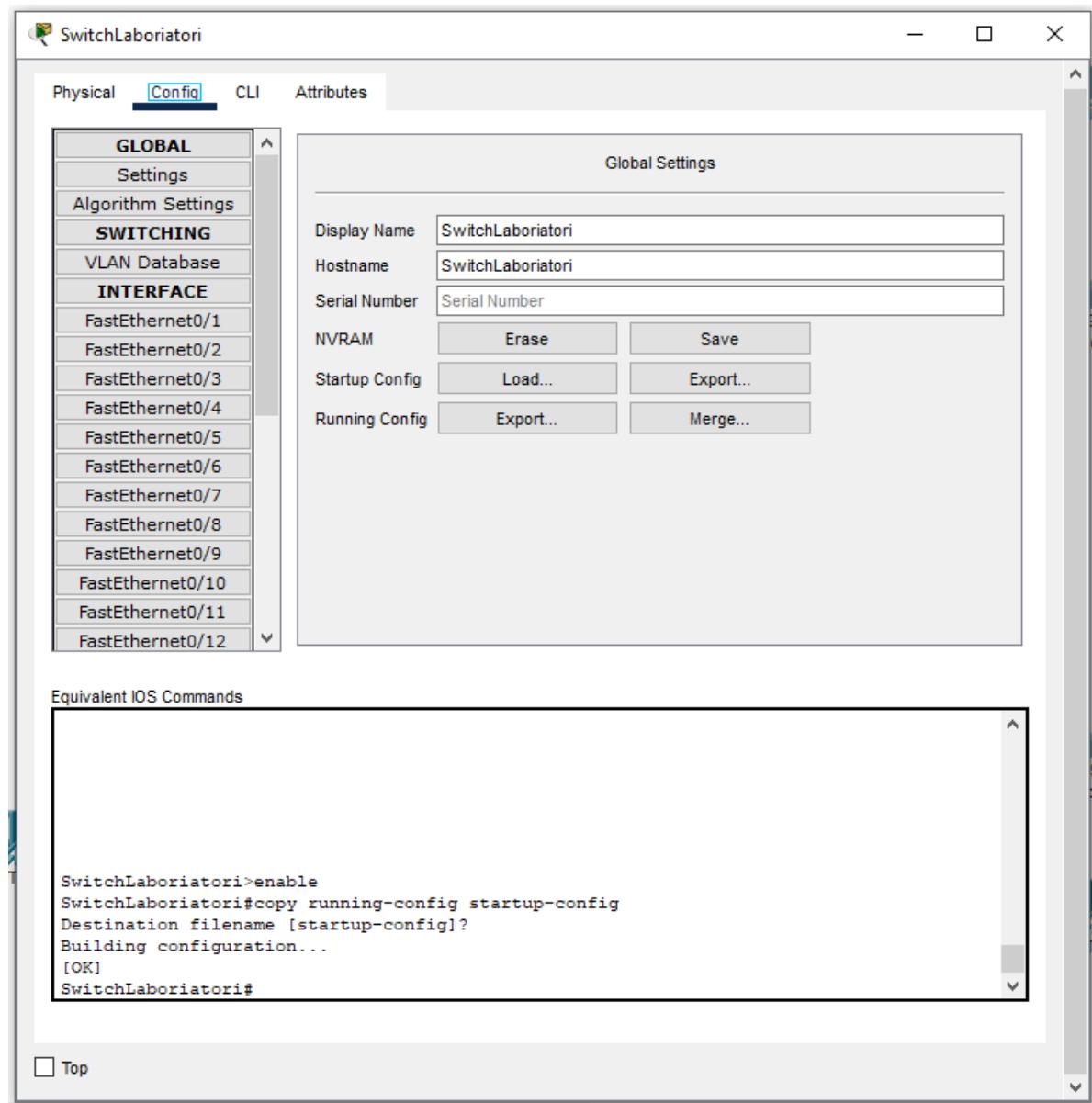
(replicare i passaggi per ogni switch cambiando il nome specifico)

## Per il display name dello switch:

1. Fare clic sullo Switch (Switch0 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".
3. Per cambiare il nome dello Switch e visualizzare il nuovo nome sotto di esso:
  - Nella scheda "Config", cercare la sezione "Settings".
  - Trovare il campo "Display Name" e inserire il nuovo nome dello Switch che è identico all'host name (SwitchLaboratori).

(replicare il tutto per ogni Switch cambiando il nome di ciascuno)



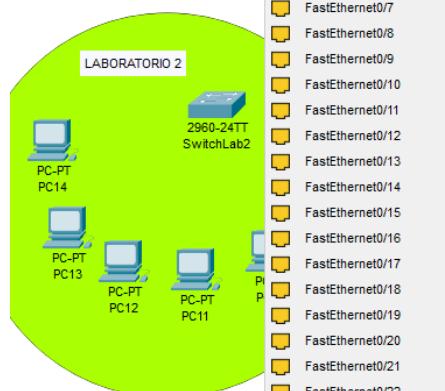
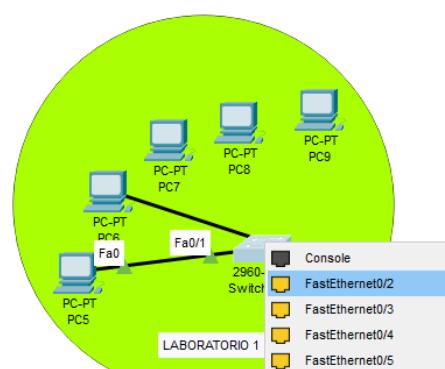
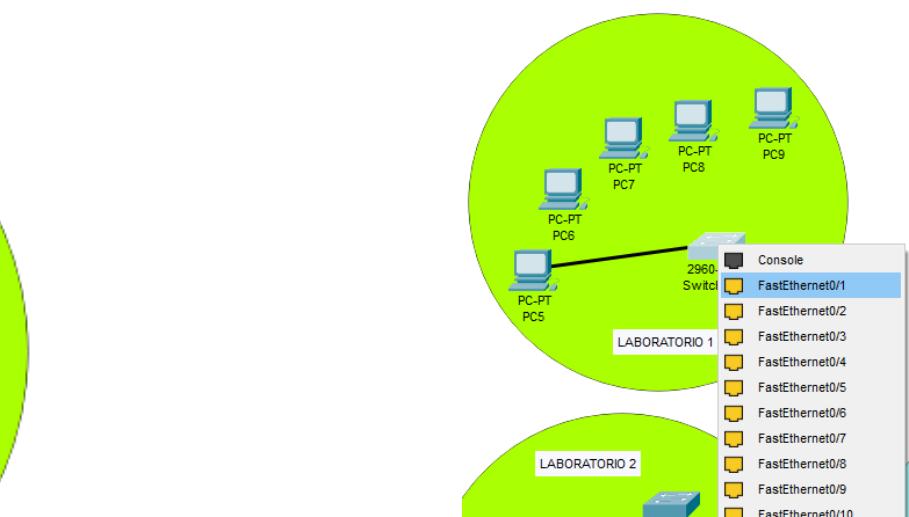
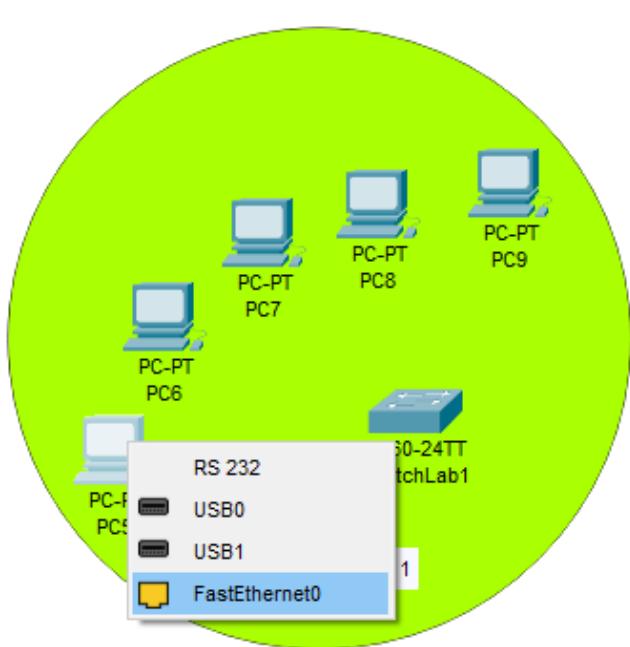


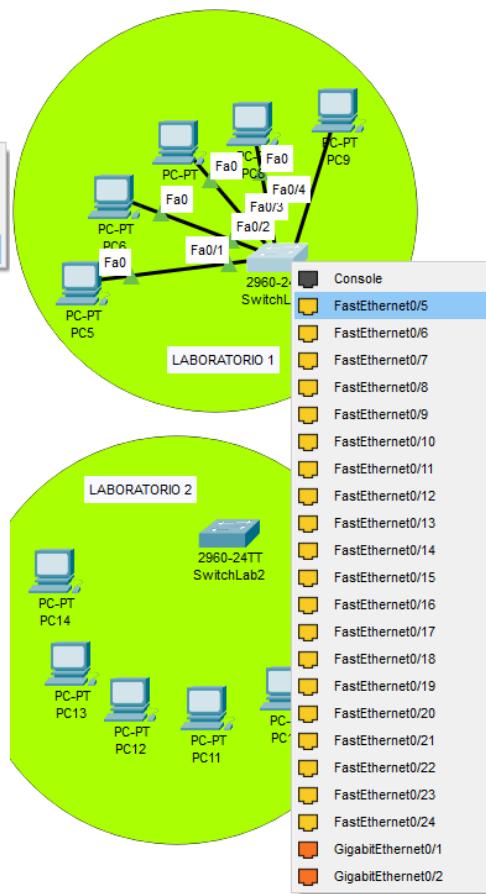
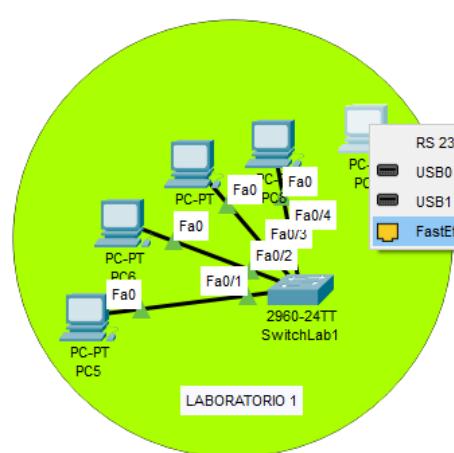
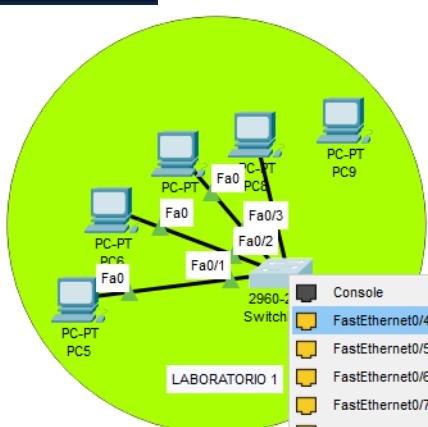
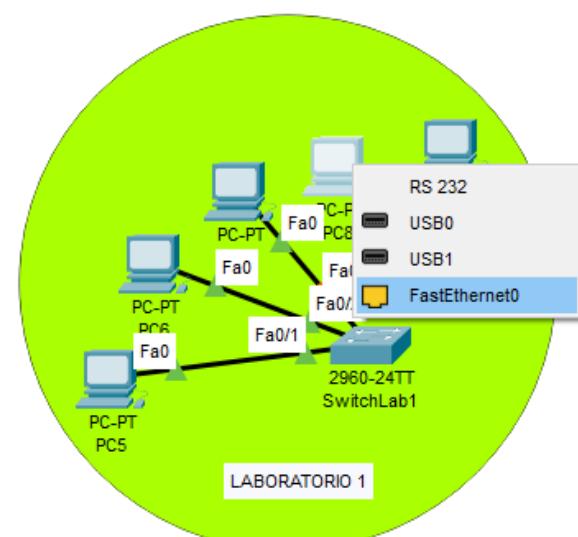
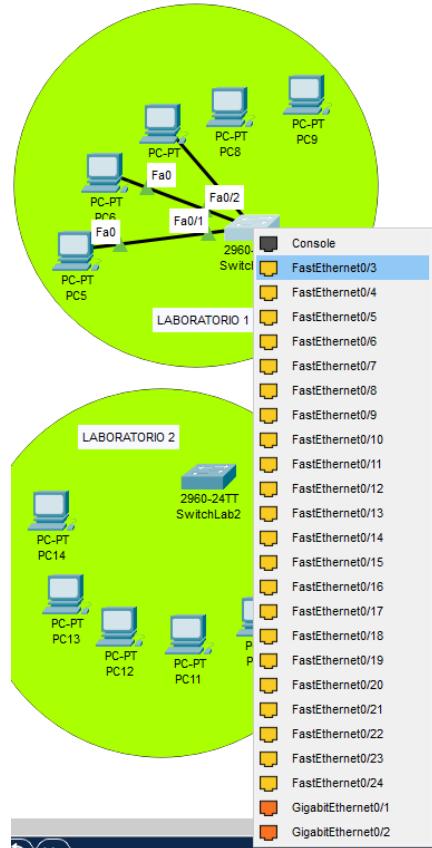
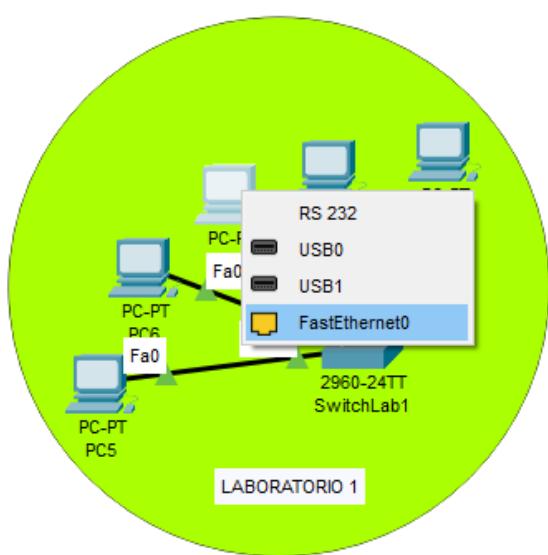
(risultato finale)

## Collegamenti dei Dispositivi nella Rete:

### LABORATORIO 1:

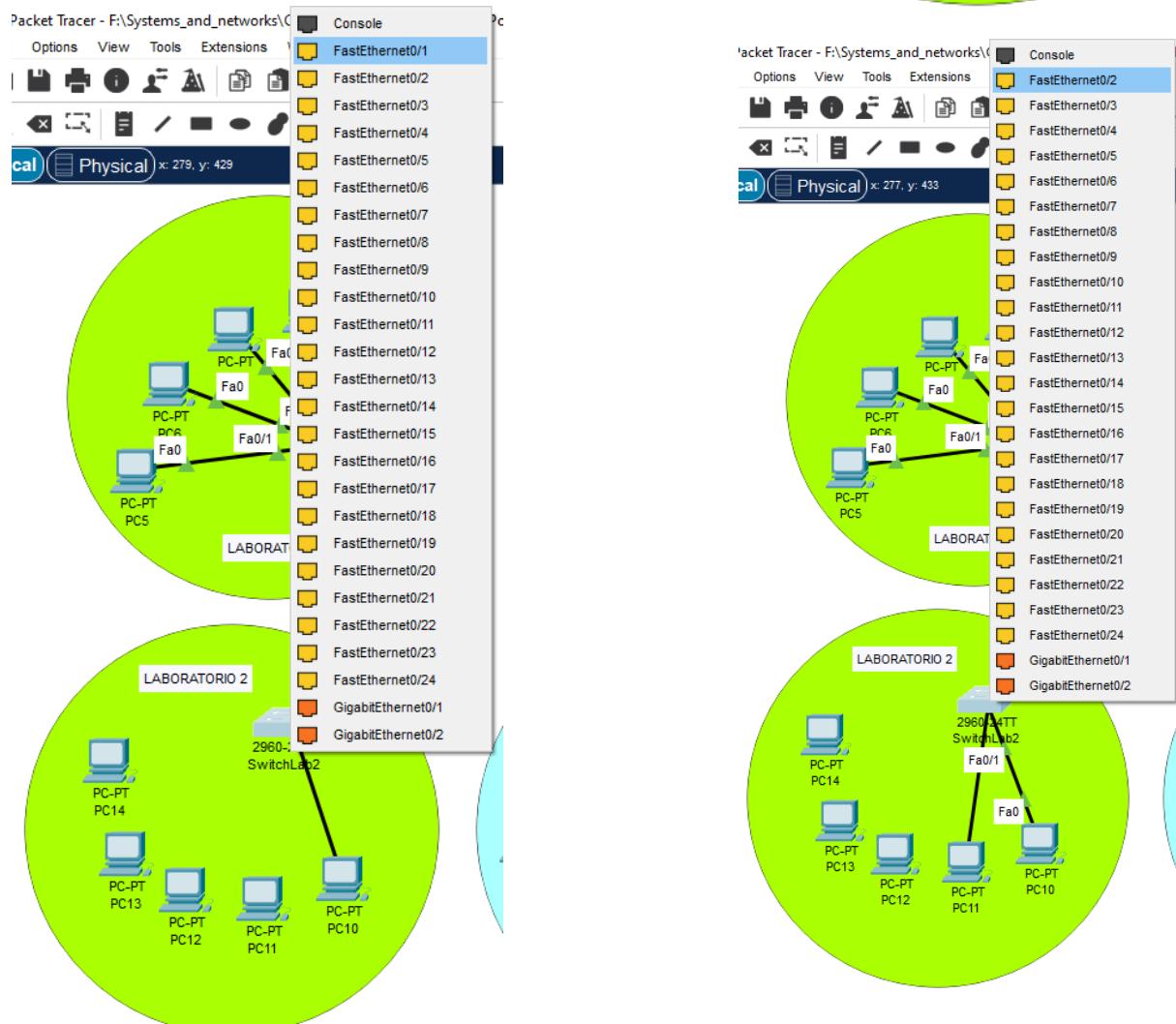
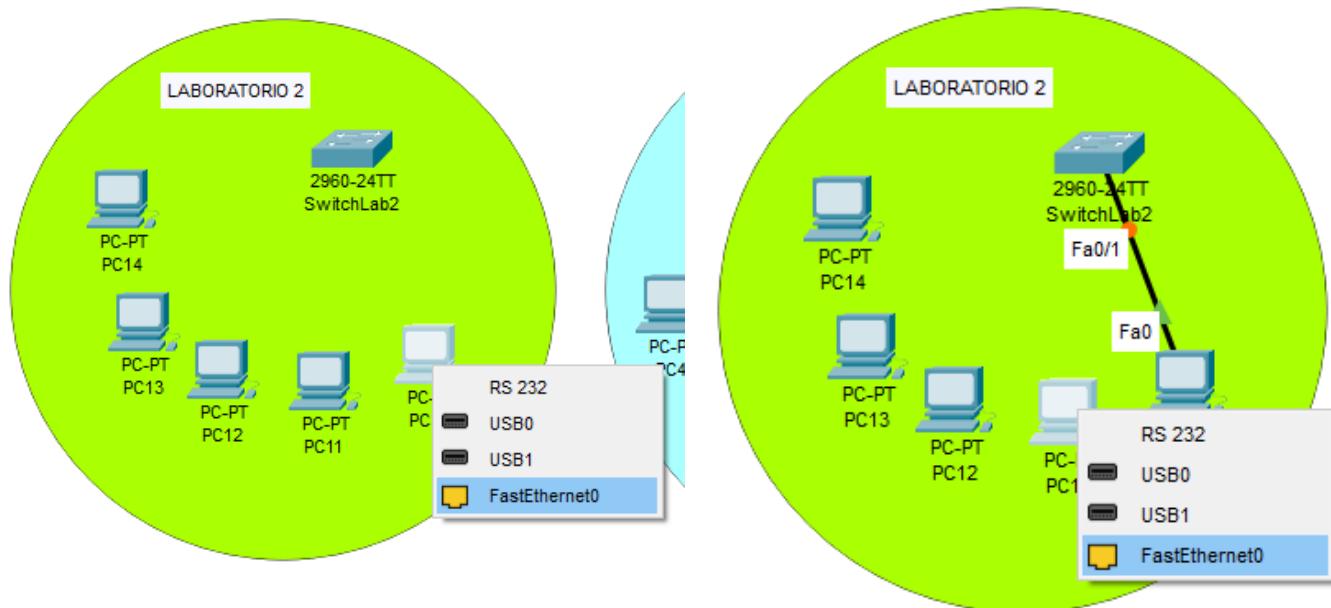
- Collegare i PC (PC-PT PC5, PC-PT PC6, PC-PT PC7, PC-PT PC8 e PC-PT PC9) allo switch 2960-24TT (SwitchLab1) utilizzando le porte FastEthernet0/1, FastEthernet0/2, FastEthernet0/3, FastEthernet0/4 e FastEthernet0/5 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through.

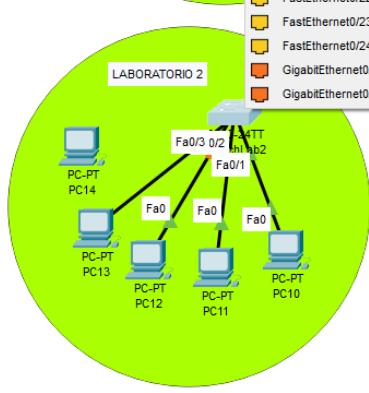
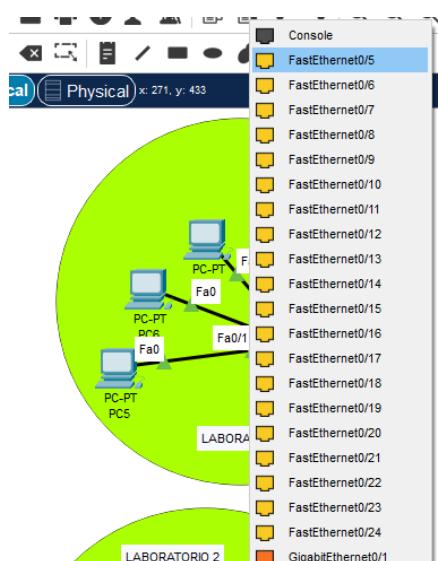
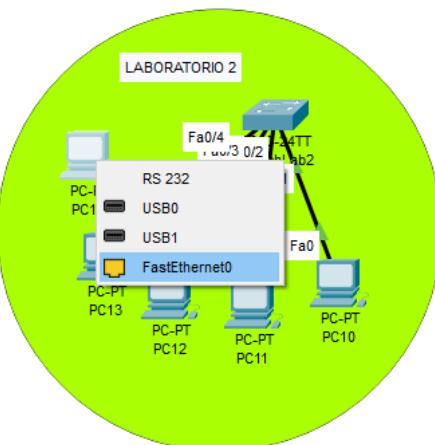
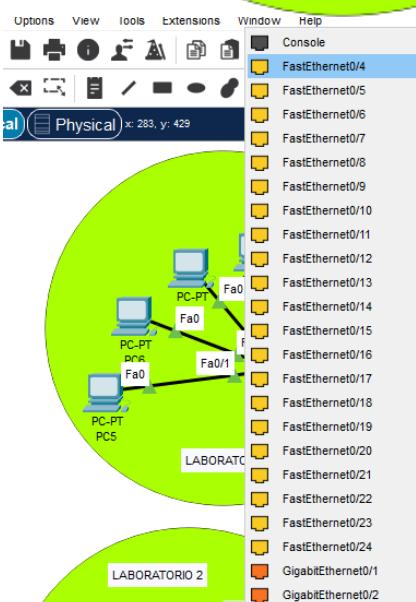
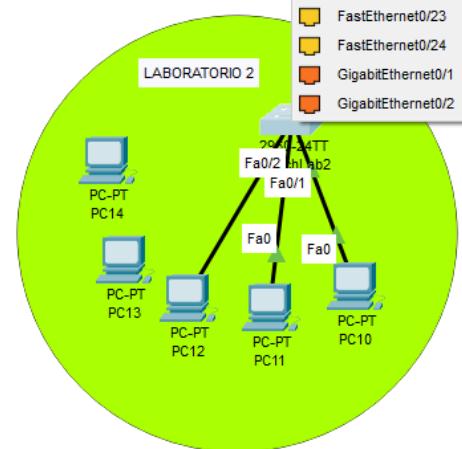
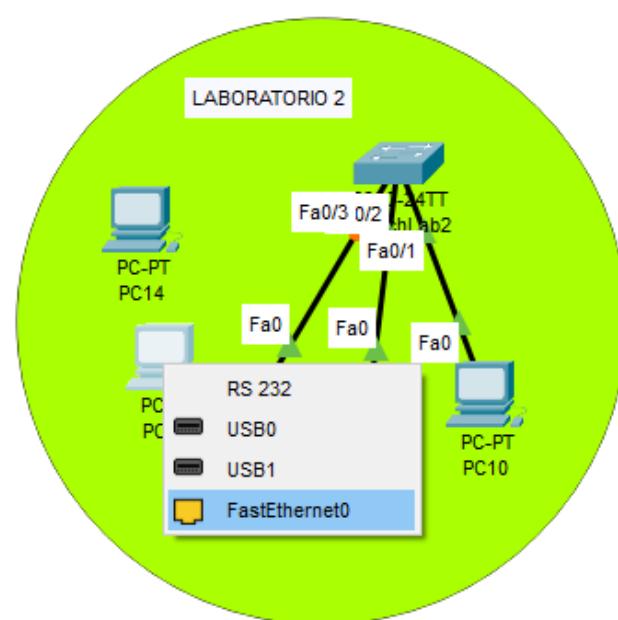
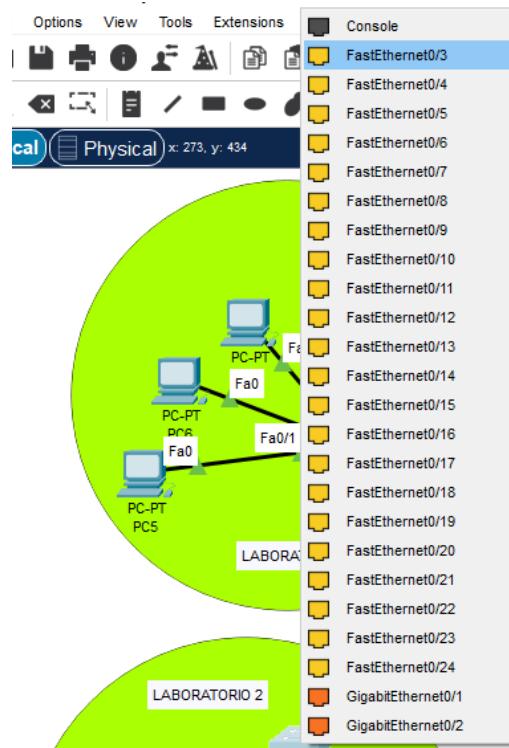
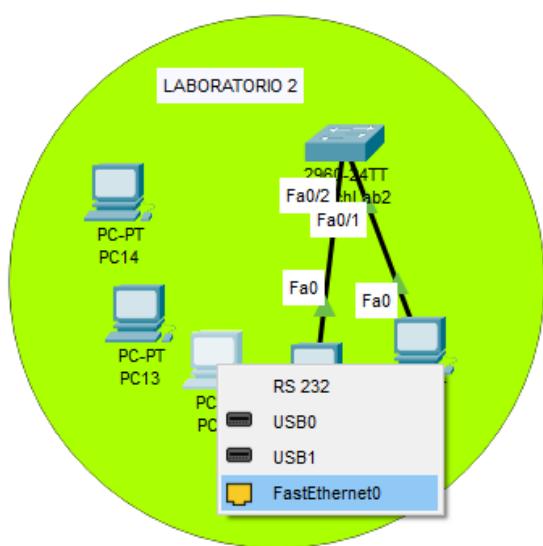




## LABORATORIO 2:

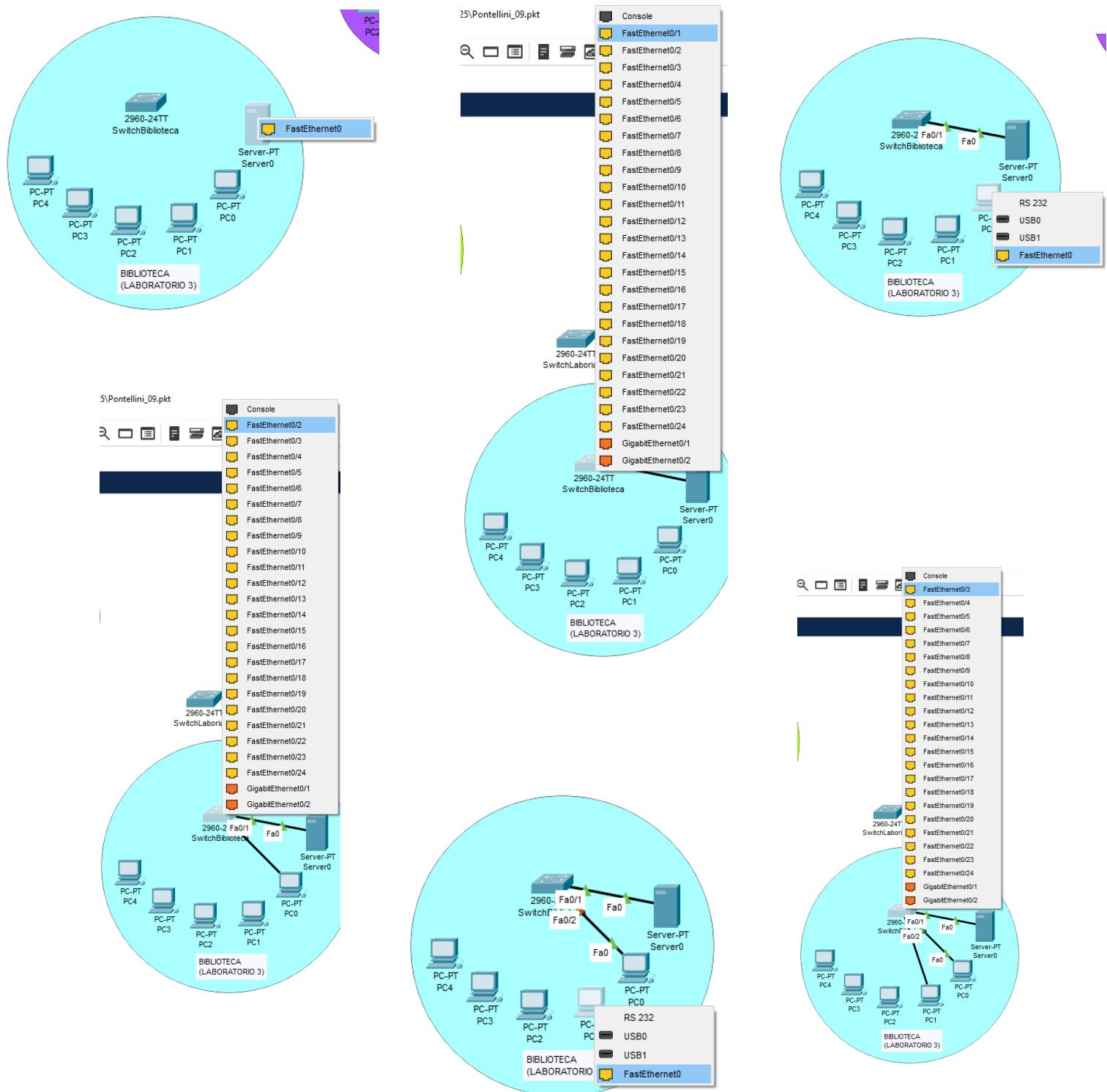
- Collegare i PC (PC-PT PC10, PC-PT PC11, PC-PT PC12, PC-PT PC13 e PC-PT PC14) allo switch 2960-24TT (SwitchLab2) utilizzando le porte FastEthernet0/1, FastEthernet0/2, FastEthernet0/3, FastEthernet0/4 e FastEthernet0/5 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through.

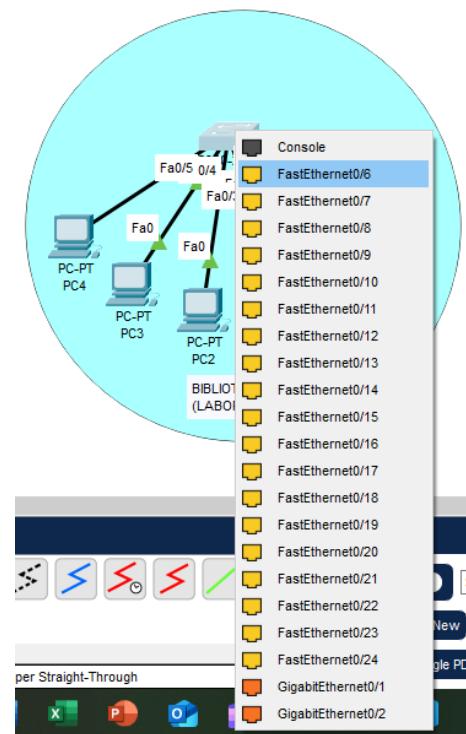
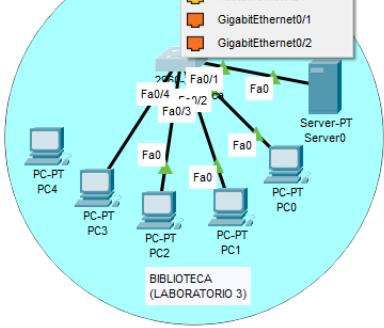
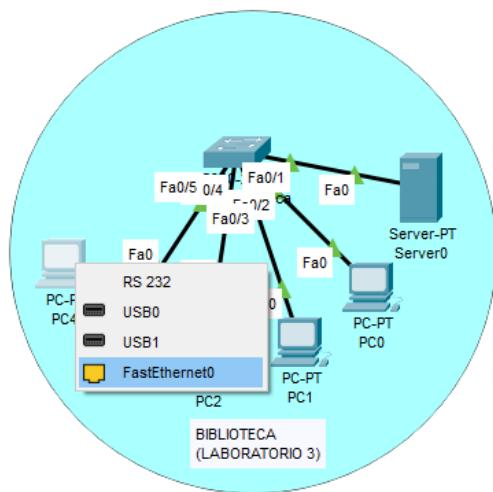
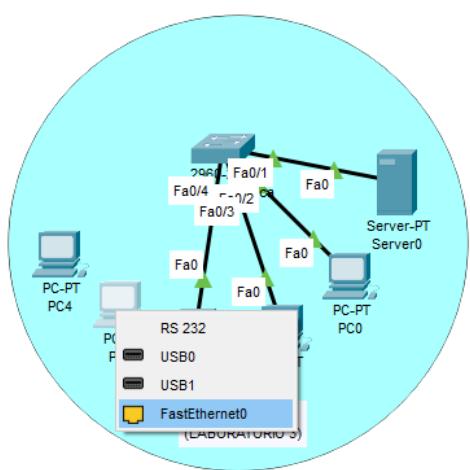
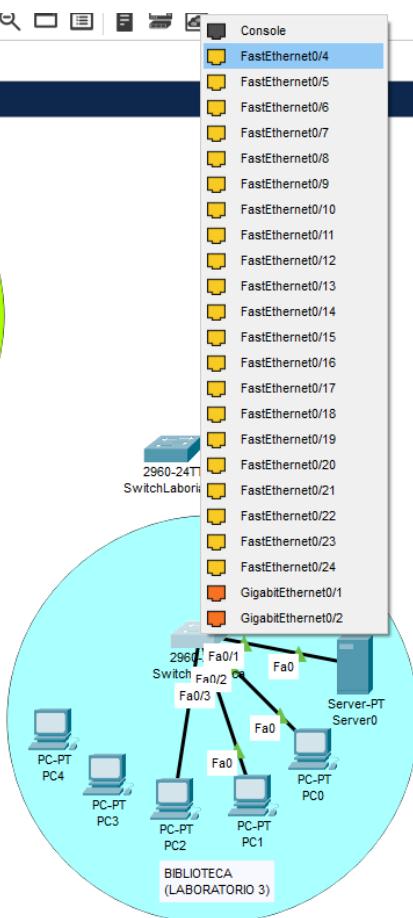
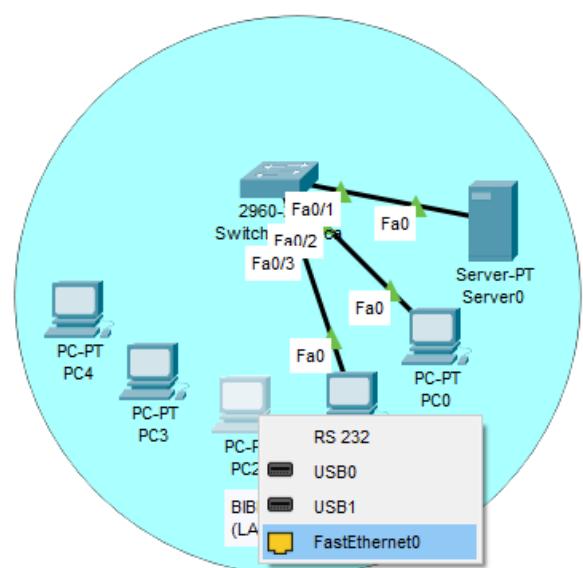




## BIBLIOTECA (LABORATORIO 3):

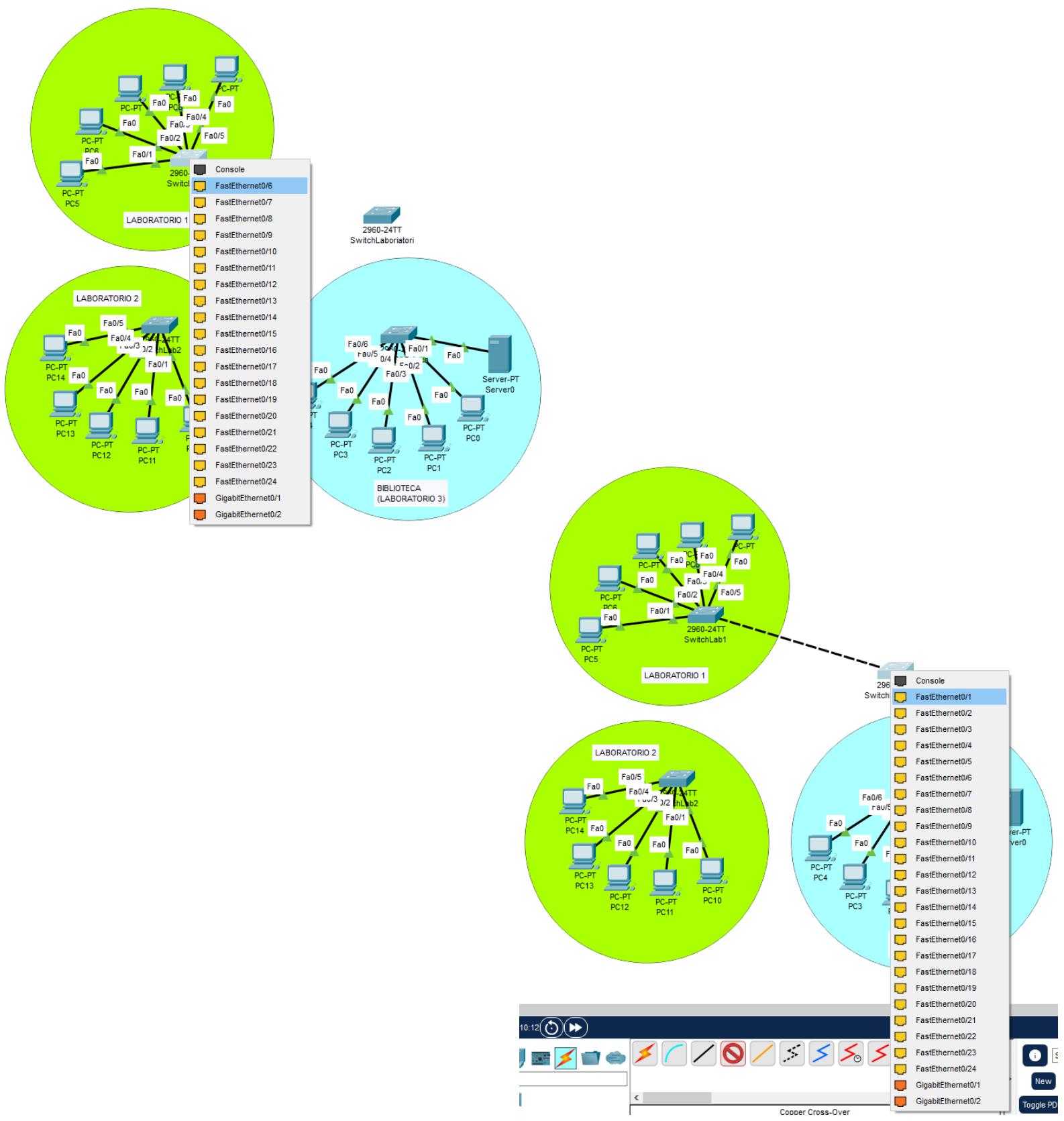
- Collegare i PC (PC-PT PC0, PC-PT PC1, PC-PT PC2, PC-PT PC3 e PC-PT PC4) e il Server-PT (Server0) allo switch 2960-24TT (SwitchBiblioteca) utilizzando le porte FastEthernet0/1, FastEthernet0/2, FastEthernet0/3, FastEthernet0/4, FastEthernet0/5 e FastEthernet0/6 dello switch e le porte FastEthernet0 dei PC e del Server0 con cavi copper straight-through.

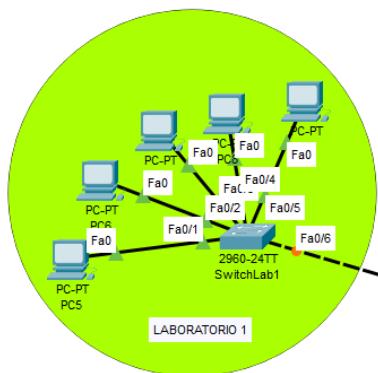




## SWITCH DEI VARI LABORATORI (LAB1, LAB2, BIBLIOTECA E SWITCHLABORATORI):

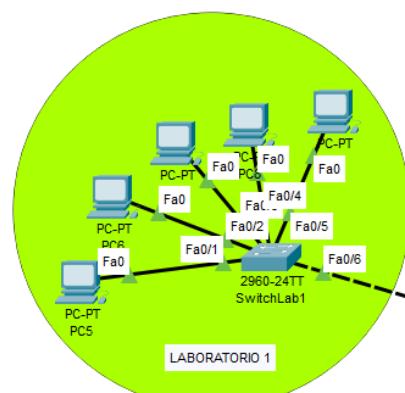
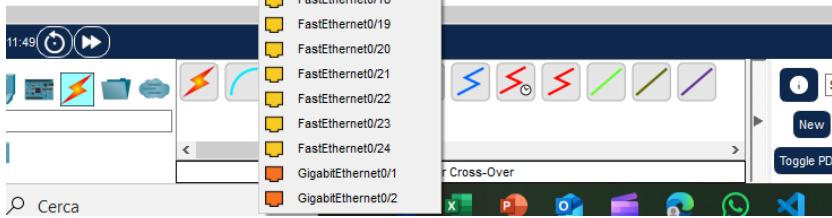
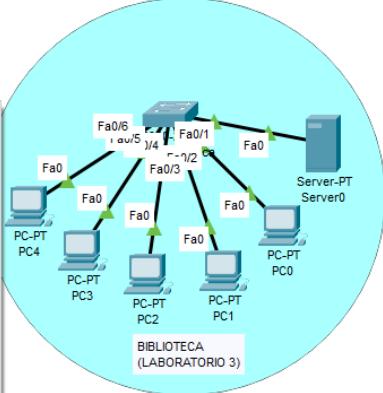
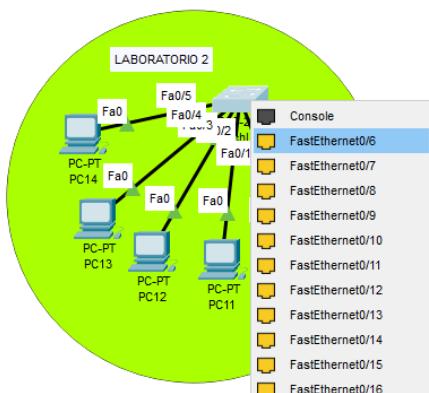
- Collegare gli switch 2960-24TT dei laboratori (SwitchLab1, SwitchLab2 e SwitchBiblioteca) allo switch 2960-24TT centrale ai laboratori (SwitchLaboratori) utilizzando le porte FastEthernet0/6 (per gli switch dei LAB1 e LAB2) e FastEthernet0/7 (per lo switch della Biblioteca) degli switch e le porte FastEthernet0/1, FastEthernet0/2 e FastEthernet0/3 (per lo SwitchLaboratori) con cavi copper cross-over.





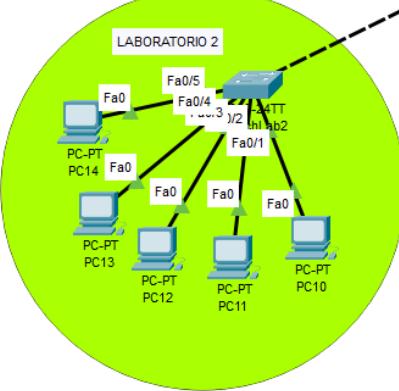
Fa0/1

2960-24TT SwitchLaboratori



Fa0/1

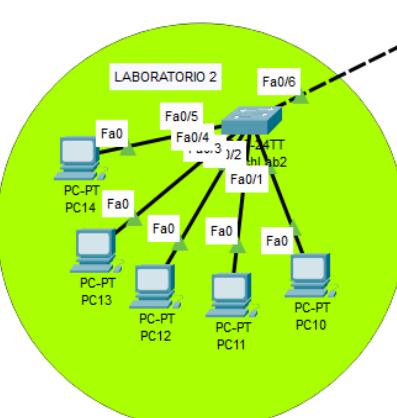
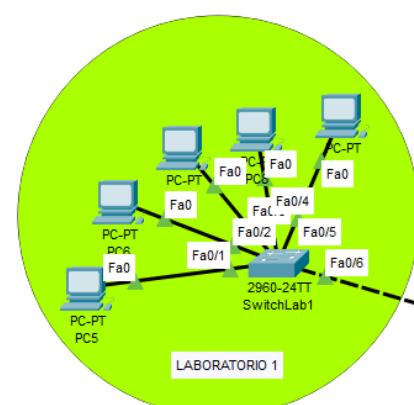
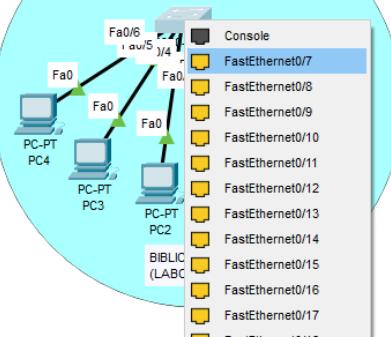
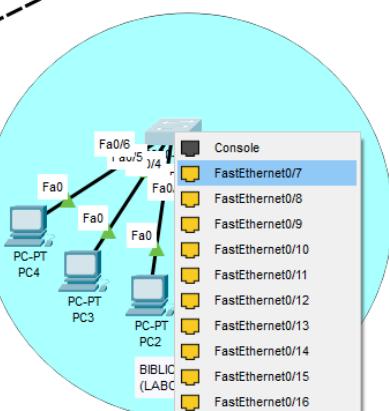
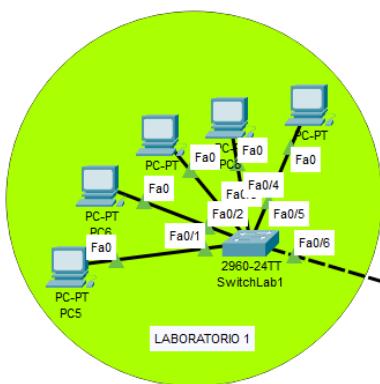
2960-24TT SwitchLaboratori



Fa0/1

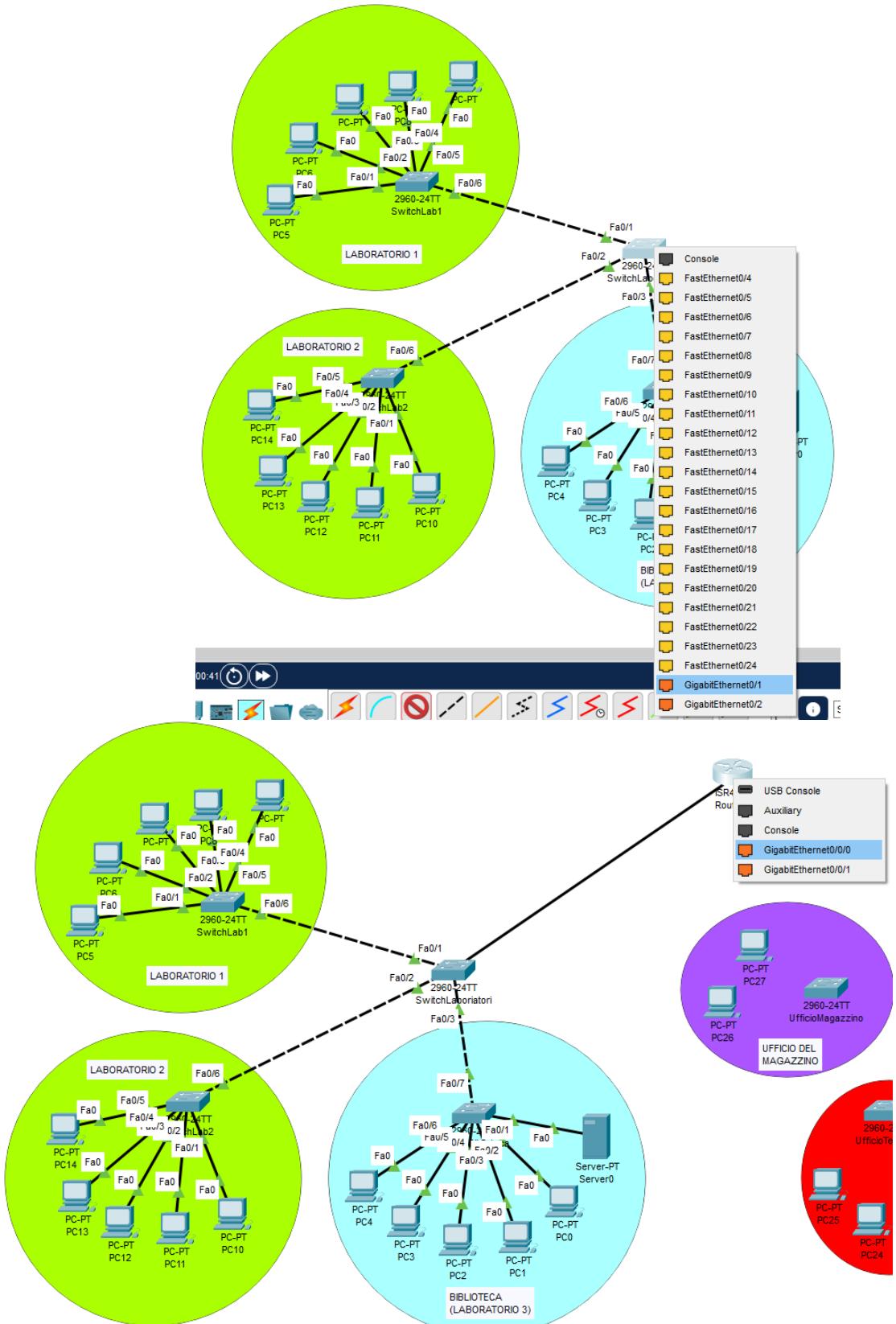
2960-24TT SwitchLaboratori





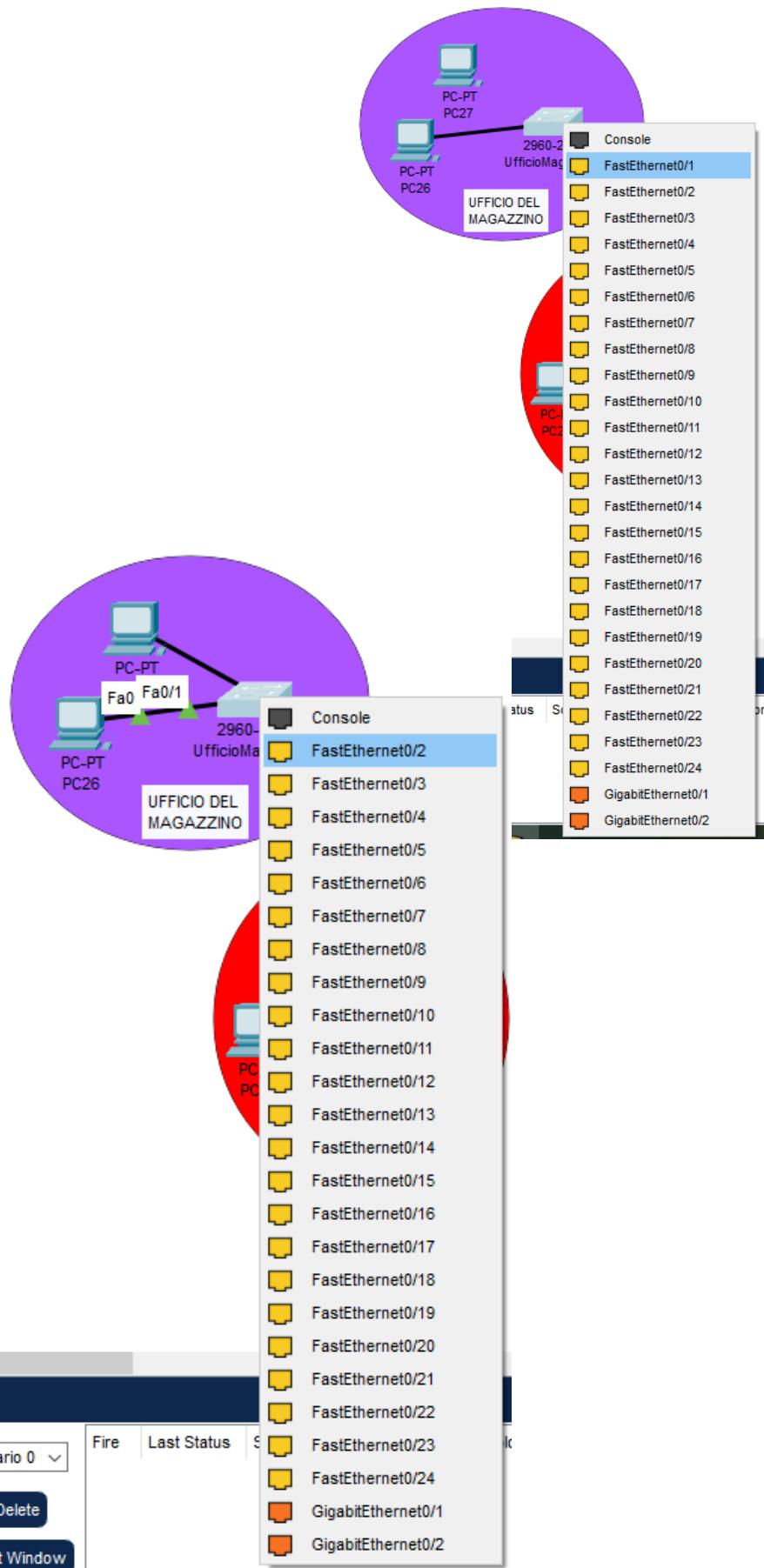
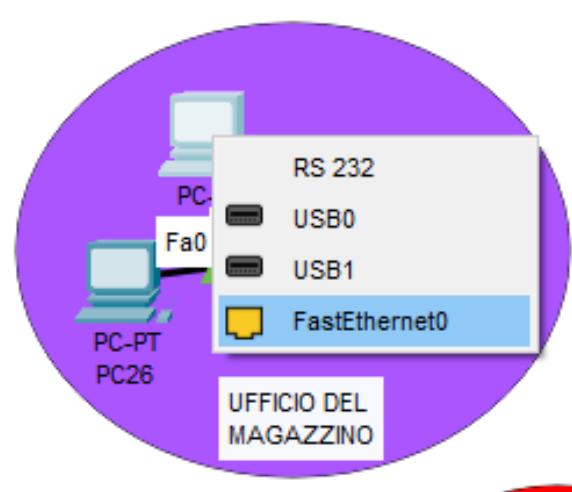
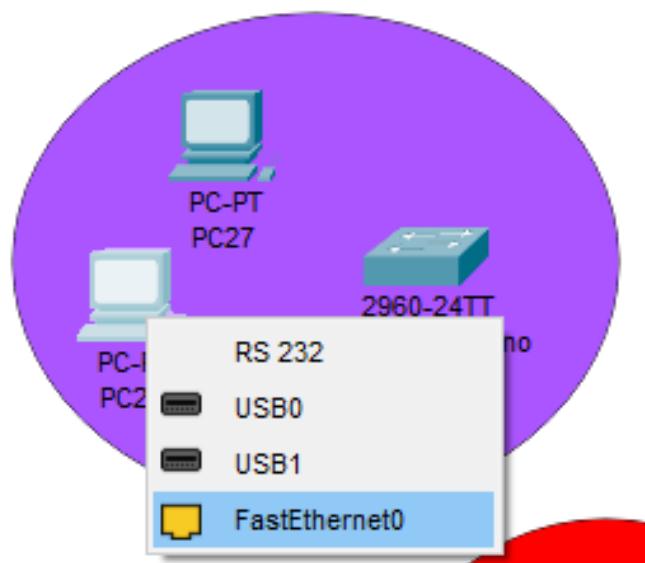
## SWITCHLABORATORI E ROUTER0:

- Collegare lo switch 2960-24TT (SwitchLaboratori) al ISR4331 (Router0) utilizzando la porta GigabitEthernet0/1 dello switch e la porta GigabitEthernet0/0/0 del router con cavi copper straight-through.



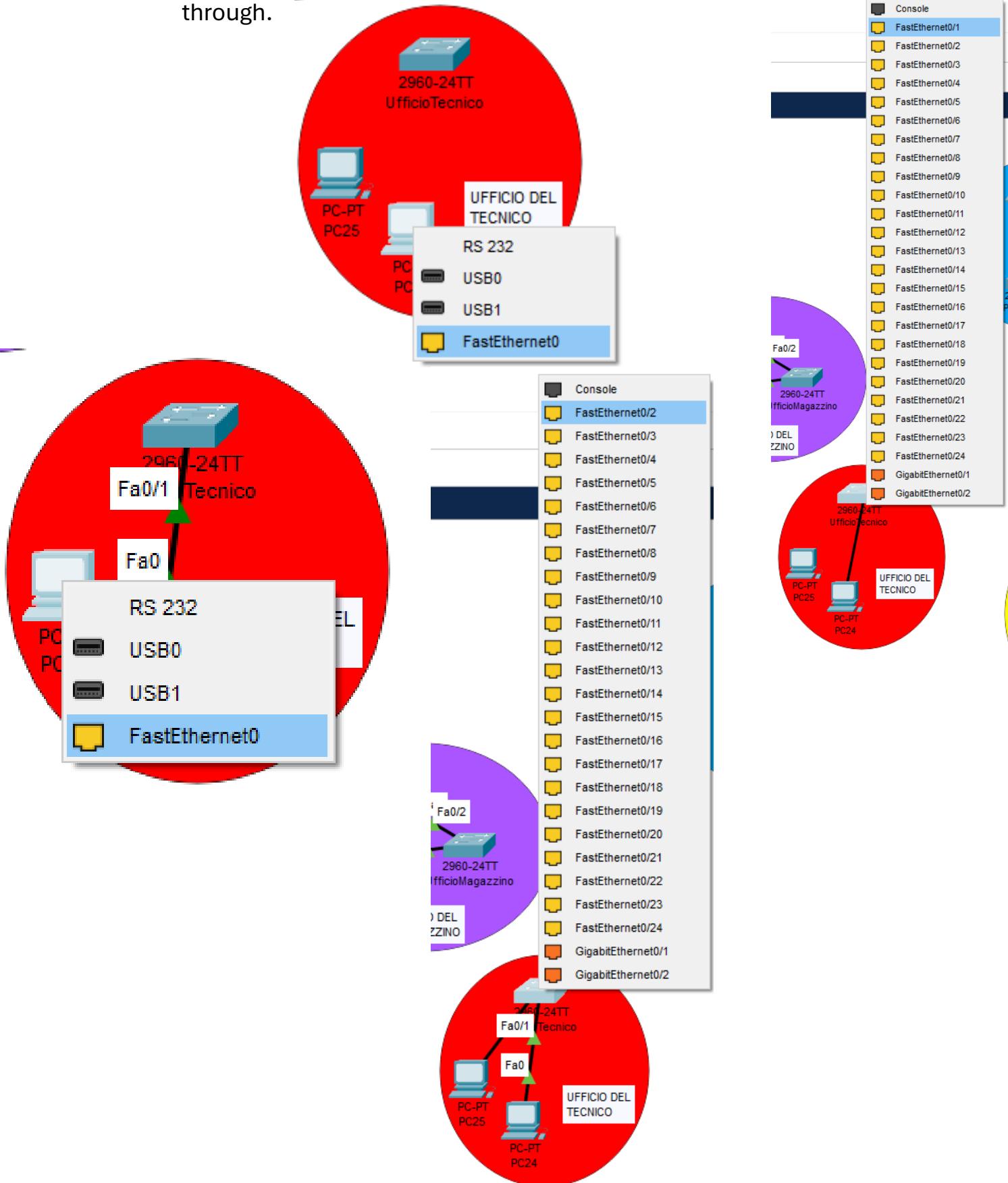
## UFFICIO DEL MAGAZZINO:

- Collegare i PC (PC-PT PC26 e PC-PT PC27) allo switch 2960-24TT (UfficioMagazzino) utilizzando le porte FastEthernet0/1 e FastEthernet0/2 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through.



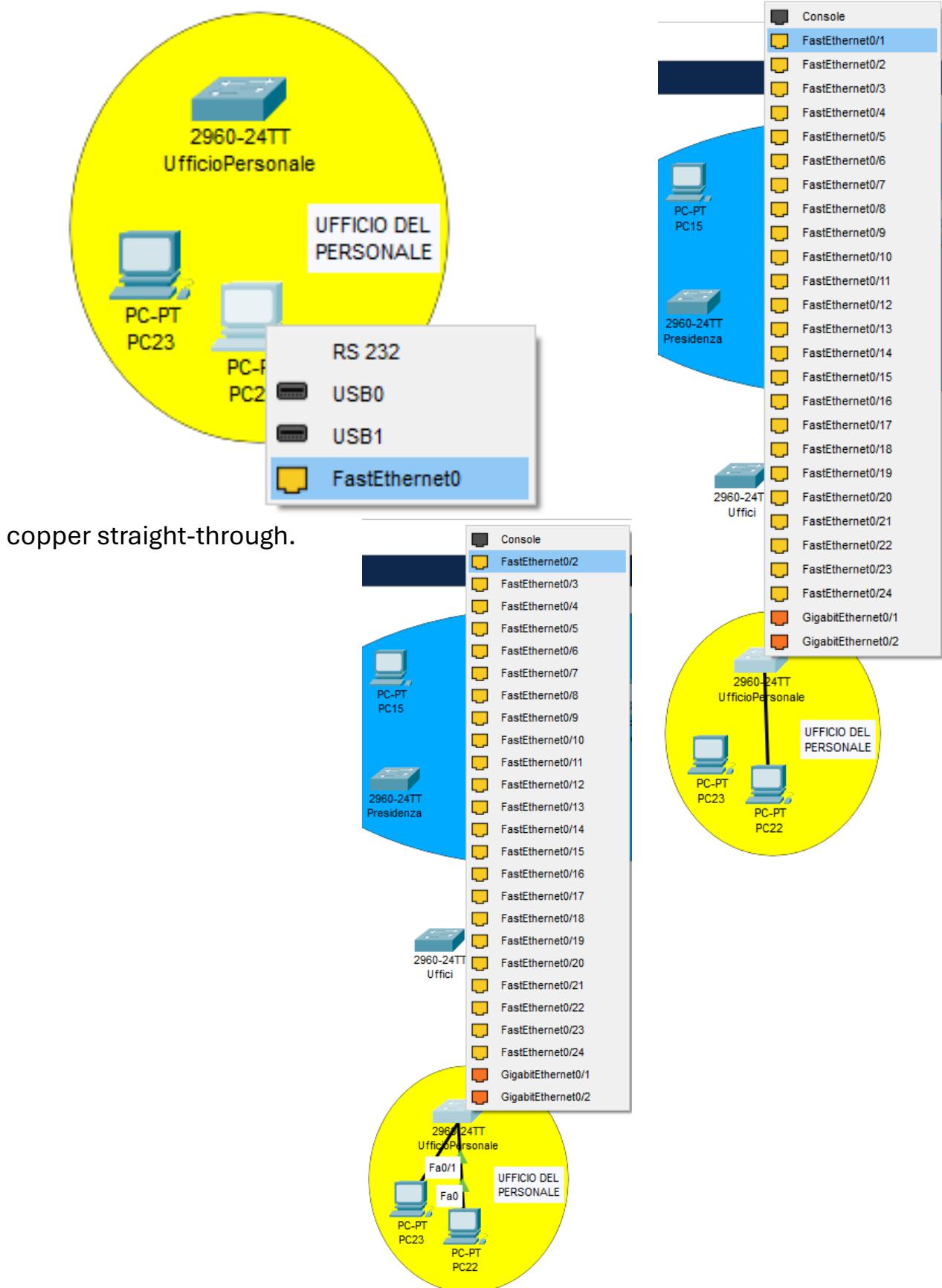
## UFFICIO DEL TECNICO:

- Collegare i PC (PC-PT PC24 e PC-PT PC25) allo switch 2960-24TT (UfficioTecnico) utilizzando le porte FastEthernet0/1 e FastEthernet0/2 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through.



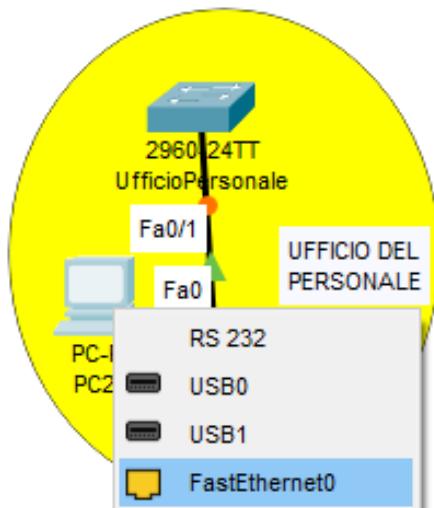
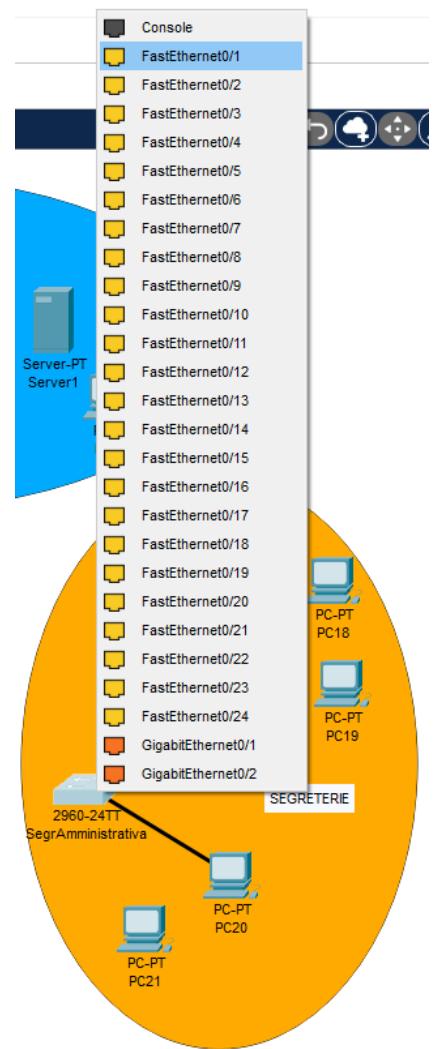
## UFFICIO DEL PERSONALE:

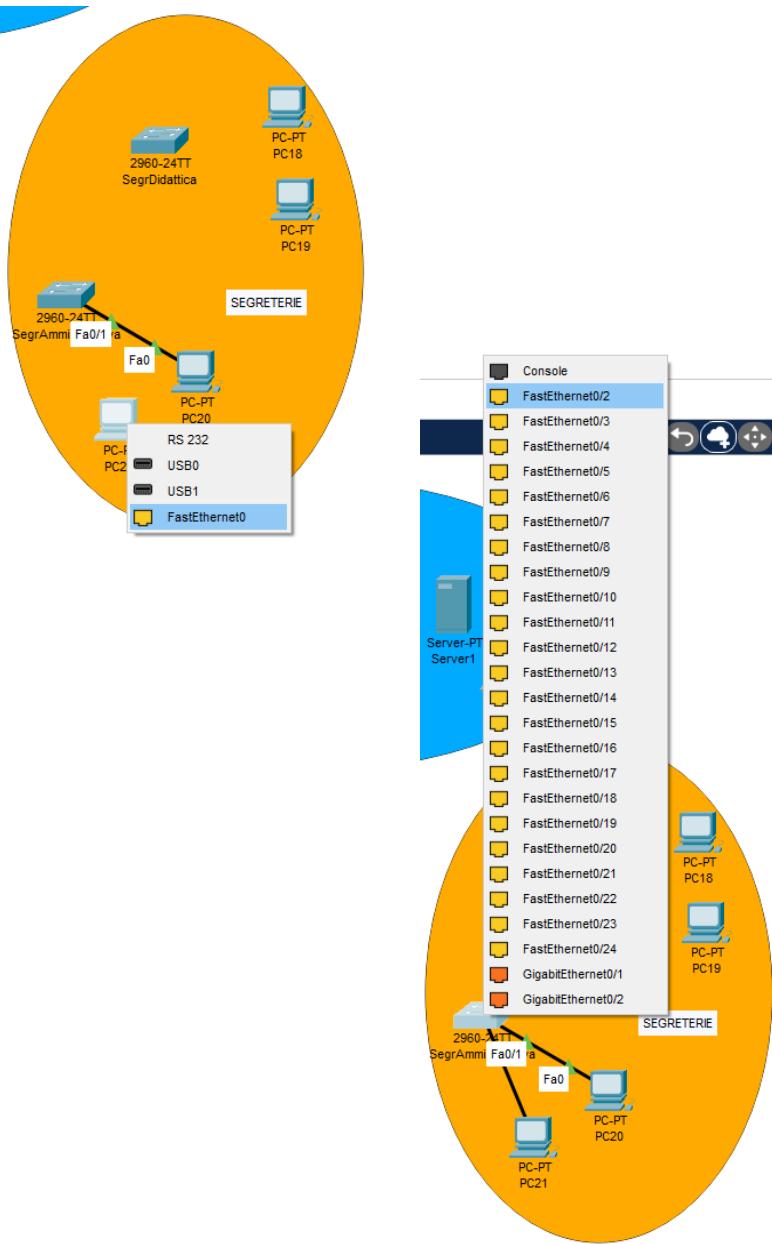
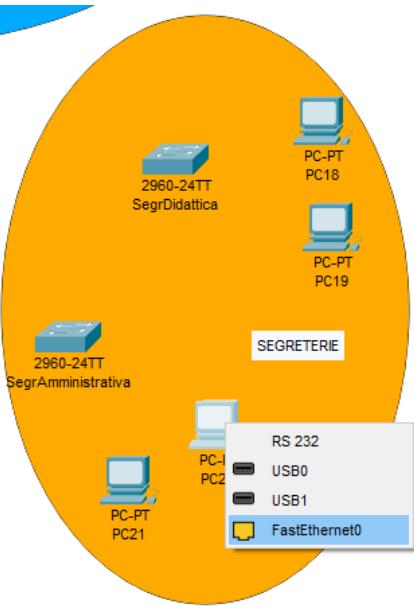
- Collegare i PC (PC-PT PC22 e PC-PT PC23) allo switch 2960-24TT (UfficioPersonale) utilizzando le porte FastEthernet0/1 e FastEthernet0/2 dello switch e le porte FastEthernet0 dei PC con cavi

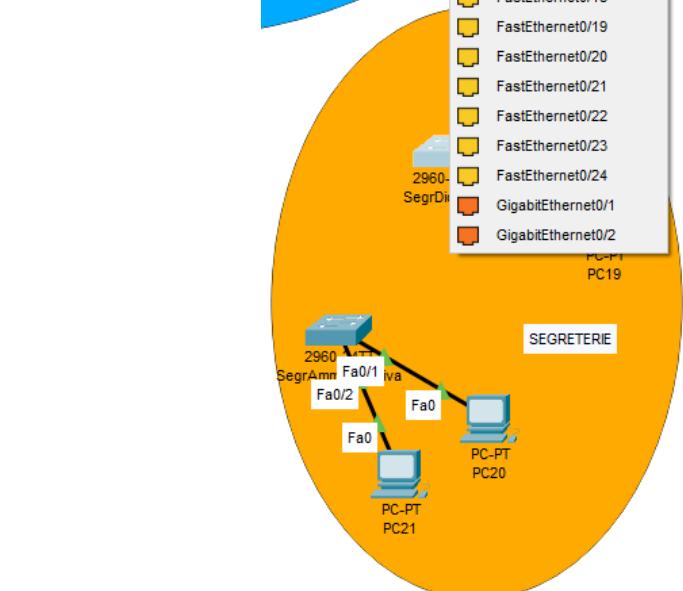
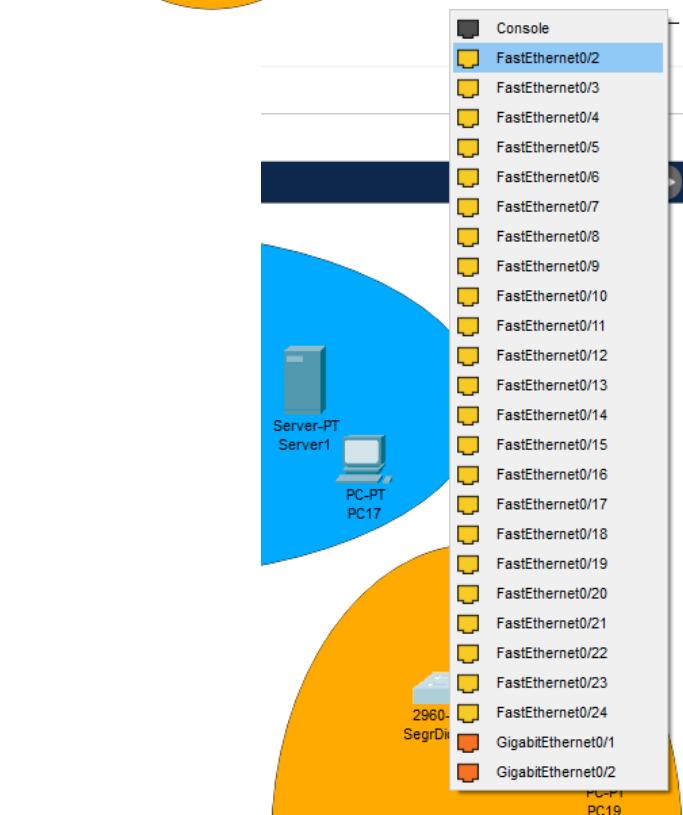
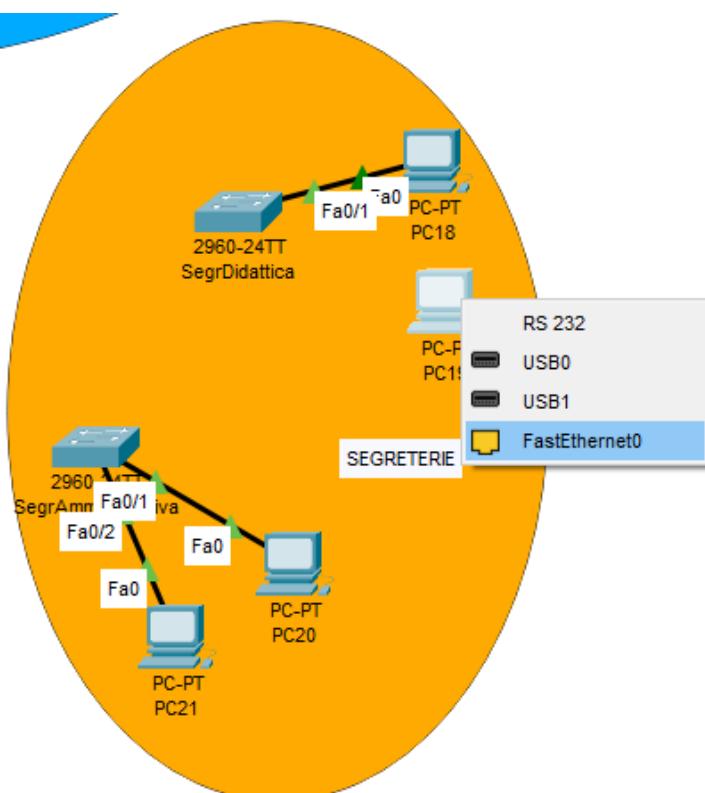
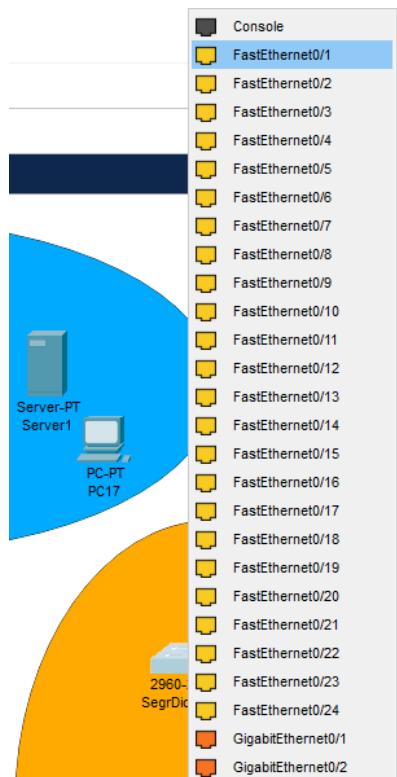
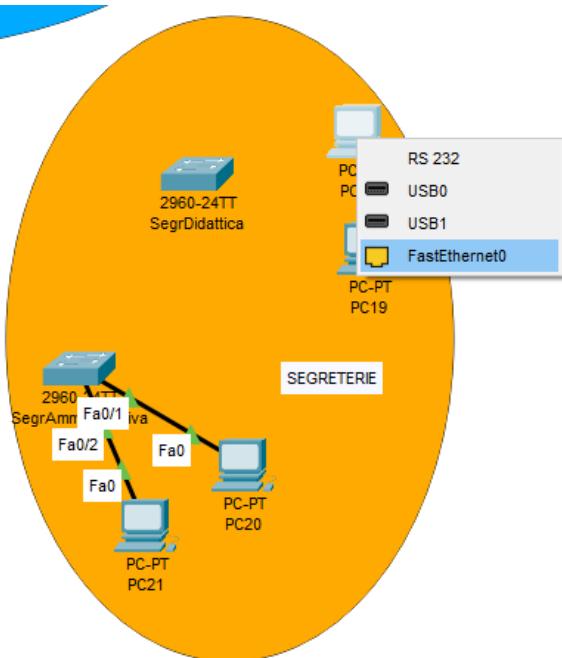


### SEGRETERIE (AMMINISTRATIVA E DIDATTICA):

- Collegare i PC (PC-PT PC20 e PC-PT PC21) allo switch 2960-24TT (SegreteriaAmministrativa) utilizzando le porte FastEthernet0/1 e FastEthernet0/2 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through. Ripetere il processo per l'altra segreteria: collegare i PC (PC-PT PC18 e PC-PT PC19) allo switch 2960-24TT (SegreteriaDidattica) utilizzando le porte FastEthernet0/1 e FastEthernet0/2 dello switch e le porte FastEthernet0 dei PC con cavi copper straight-through.

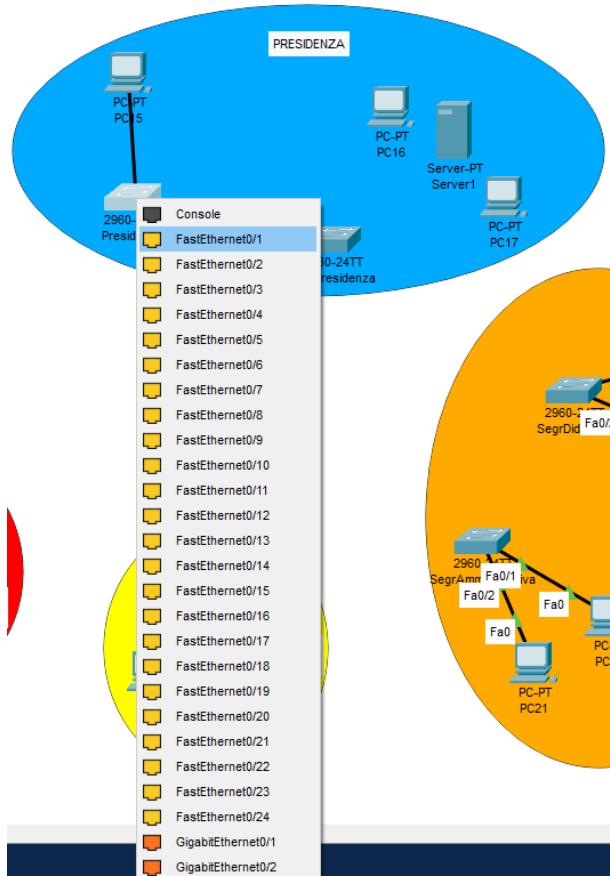
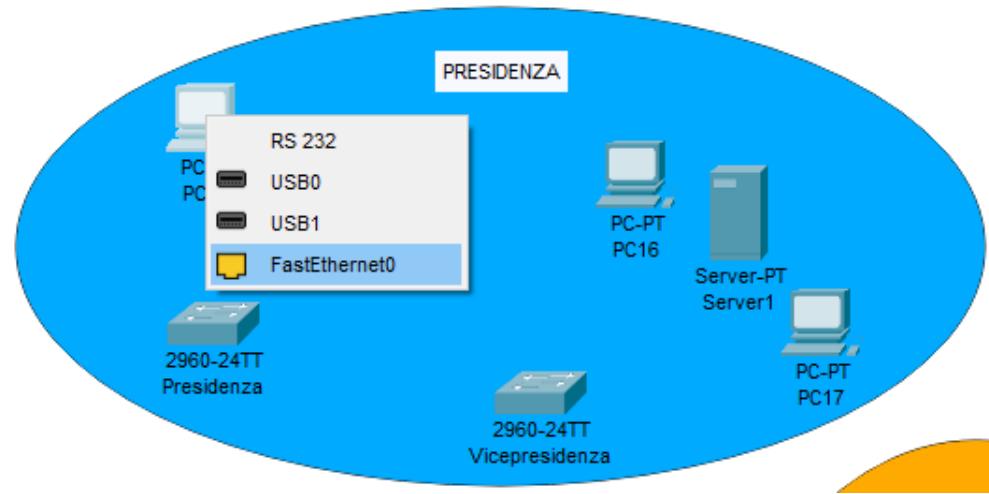


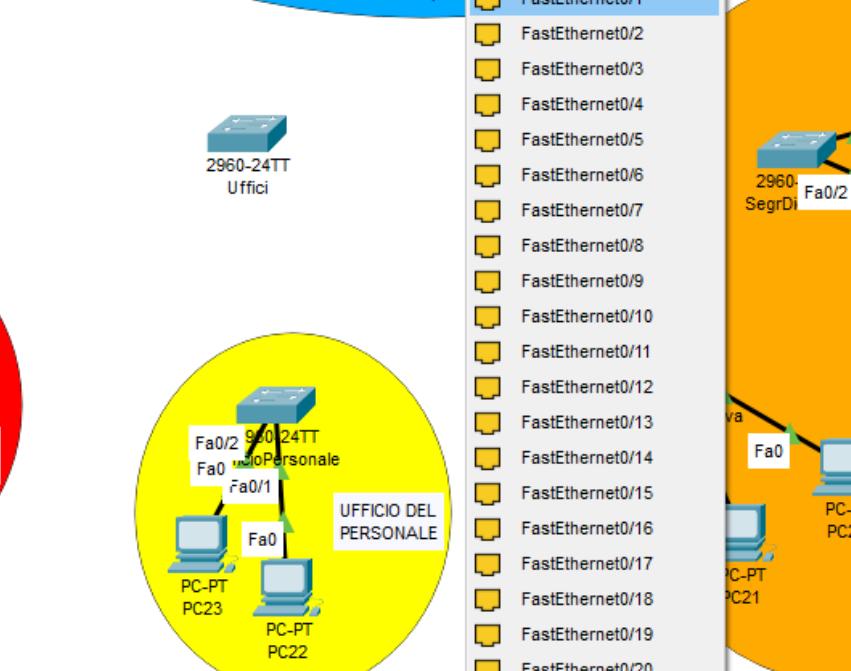
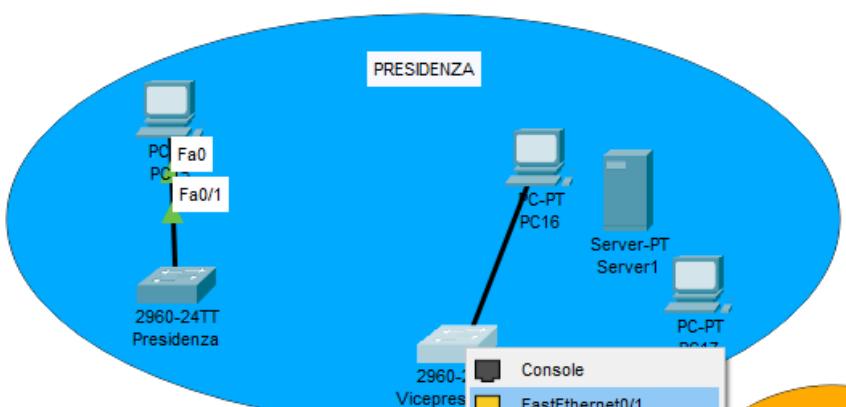
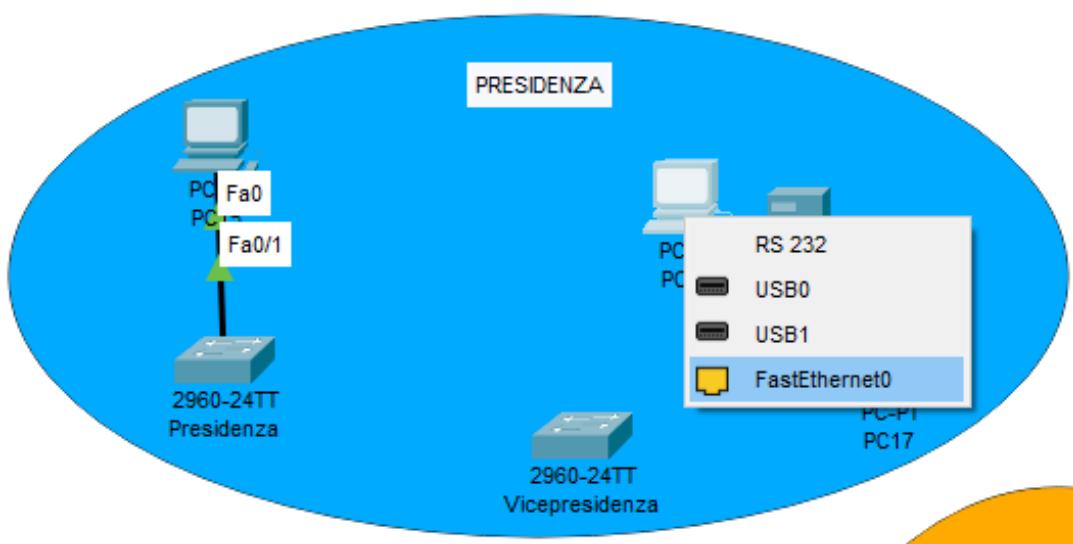




## PRESIDENZA (PRESIDENZA E VICEPRESIDENZA):

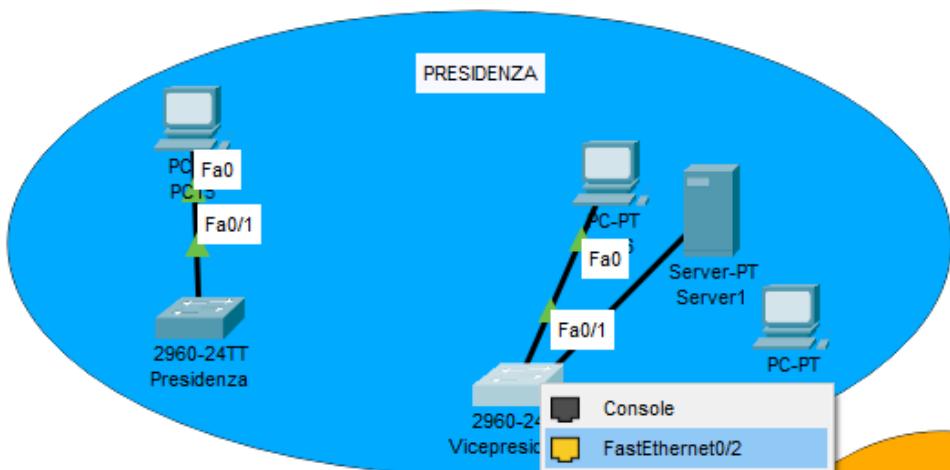
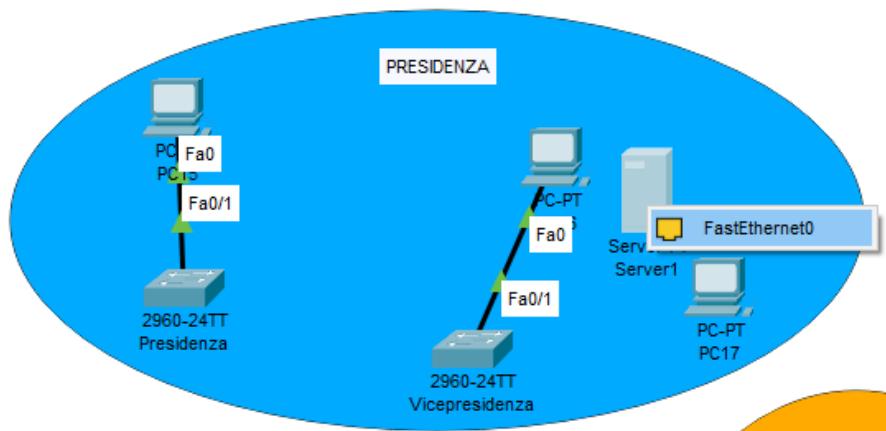
- Collegare il PC-PT PC15 allo switch 2960-24TT (Presidenza) utilizzando la porta FastEthernet0/1 dello switch e la porta FastEthernet0 del PC con cavo copper straight-through. Ripetere il processo per l'altra presidenza: collegare i PC (PC-PT PC16 e PC-PT PC17) e il Server-PT (Server1) allo switch 2960-24TT (Vicepresidenza) utilizzando le porte FastEthernet0/1, FastEthernet0/2 e FastEthernet0/3 dello switch e le porte FastEthernet0 dei PC e del Server1 con cavi copper straight-through.





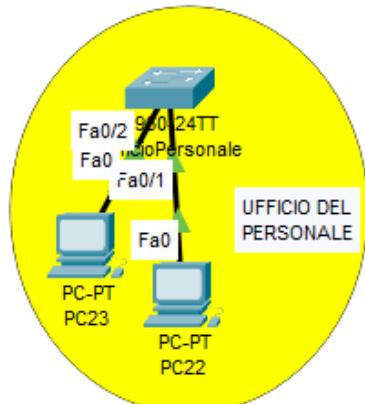
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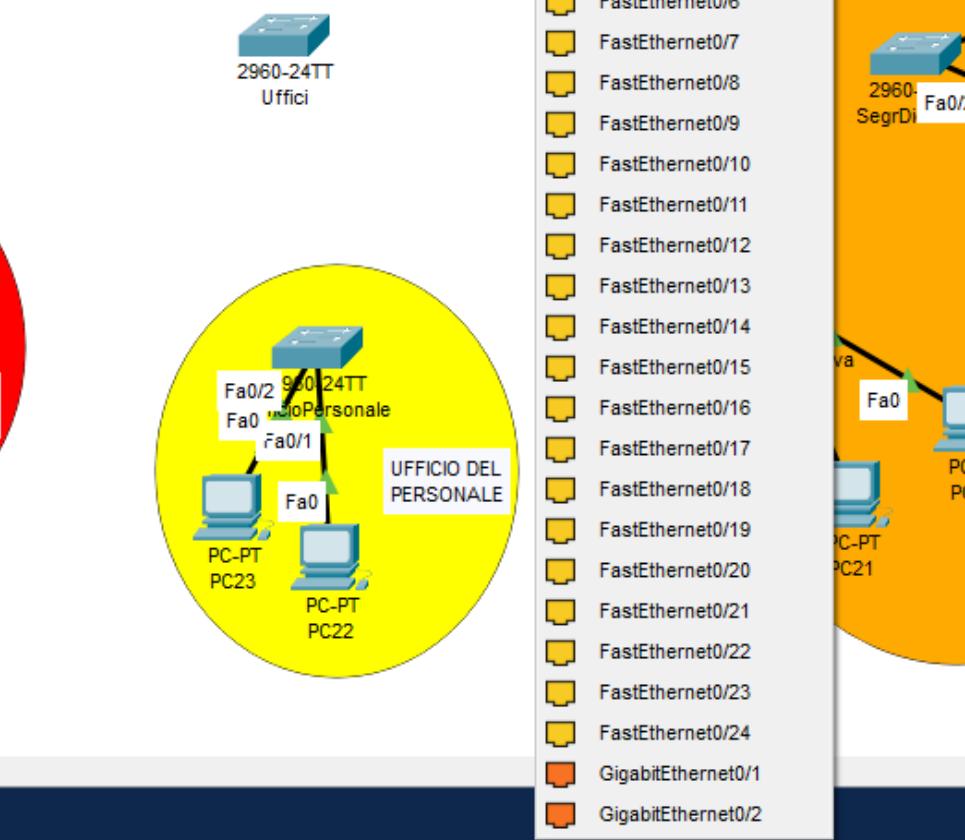
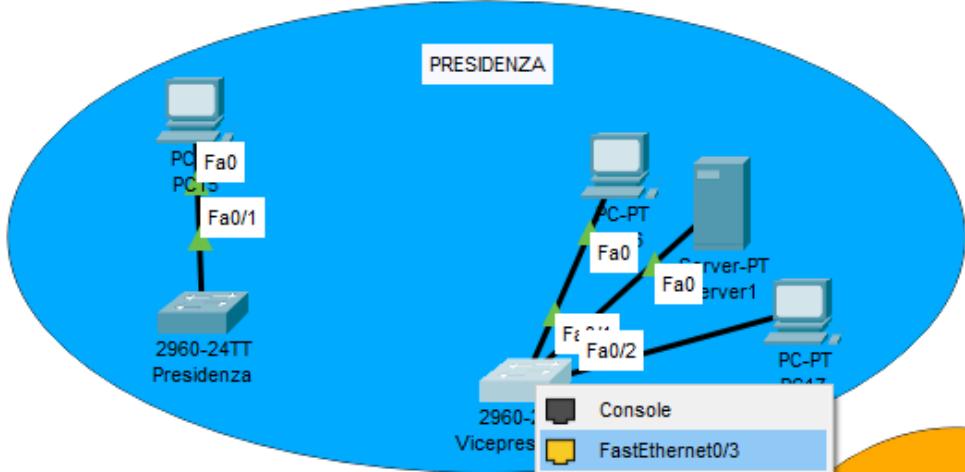
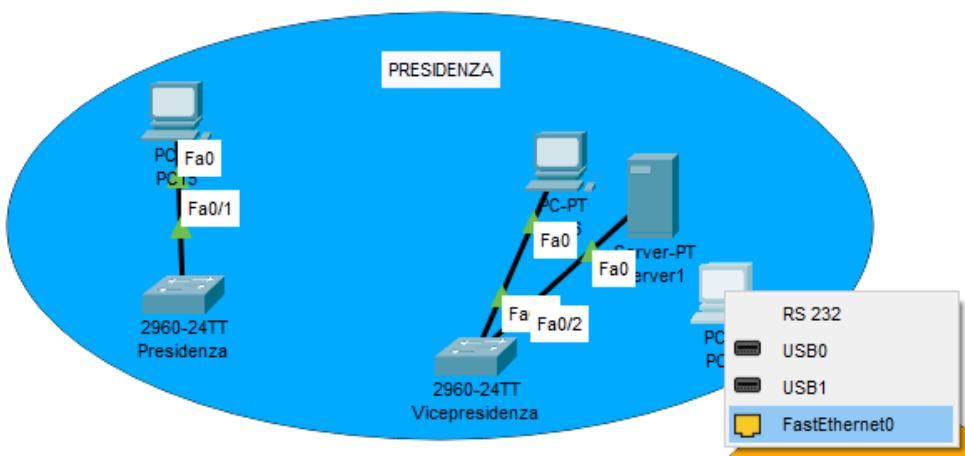
GigabitEthernet0/1  
GigabitEthernet0/2



2960-24TT  
Uffici

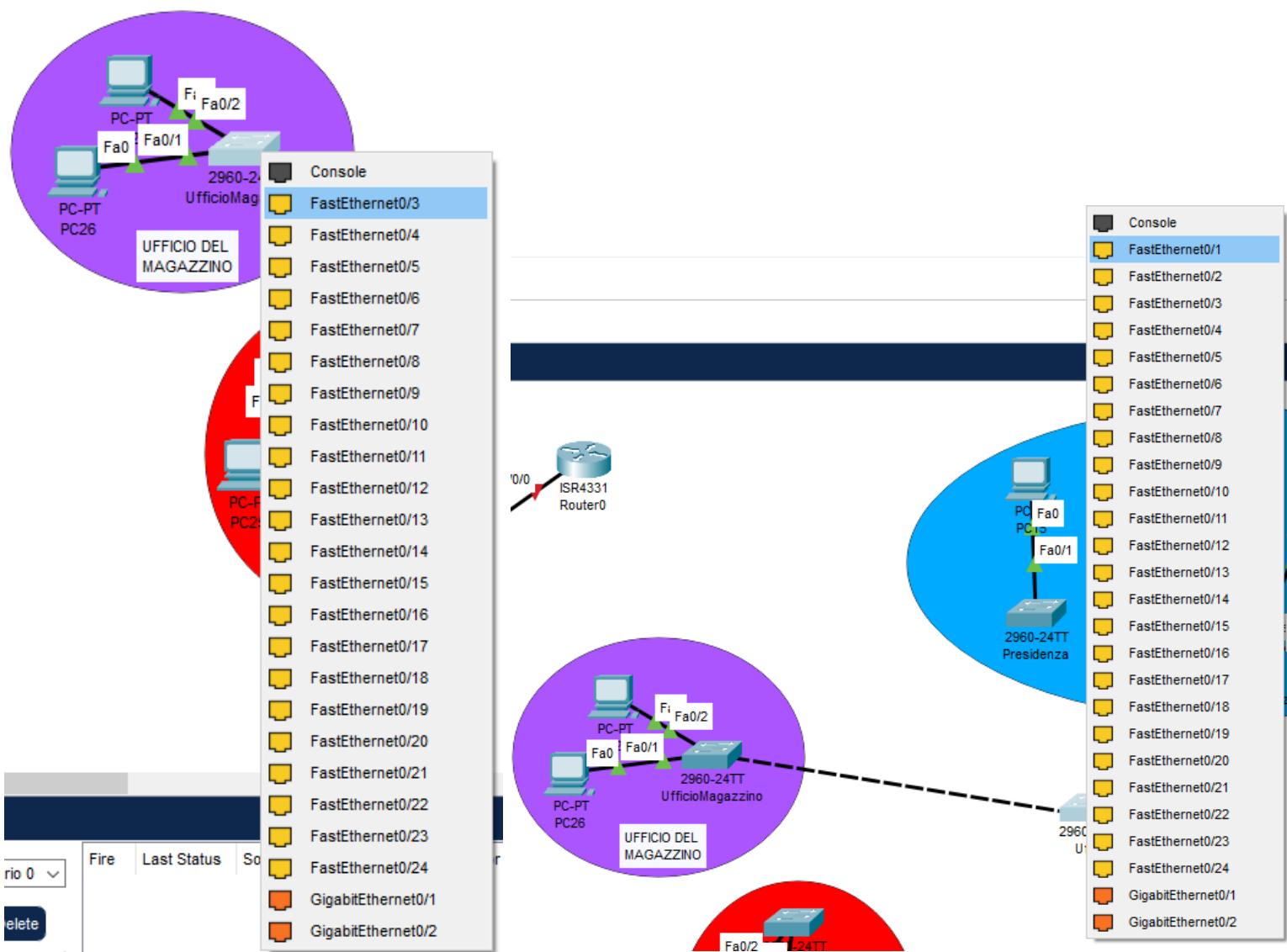
- Console
- FastEthernet0/2
- FastEthernet0/3
- FastEthernet0/4
- FastEthernet0/5
- FastEthernet0/6
- FastEthernet0/7
- FastEthernet0/8
- FastEthernet0/9
- FastEthernet0/10
- FastEthernet0/11
- FastEthernet0/12
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- FastEthernet0/17
- FastEthernet0/18
- FastEthernet0/19
- FastEthernet0/20
- FastEthernet0/21
- FastEthernet0/22
- FastEthernet0/23
- FastEthernet0/24
- GigabitEthernet0/1
- GigabitEthernet0/2

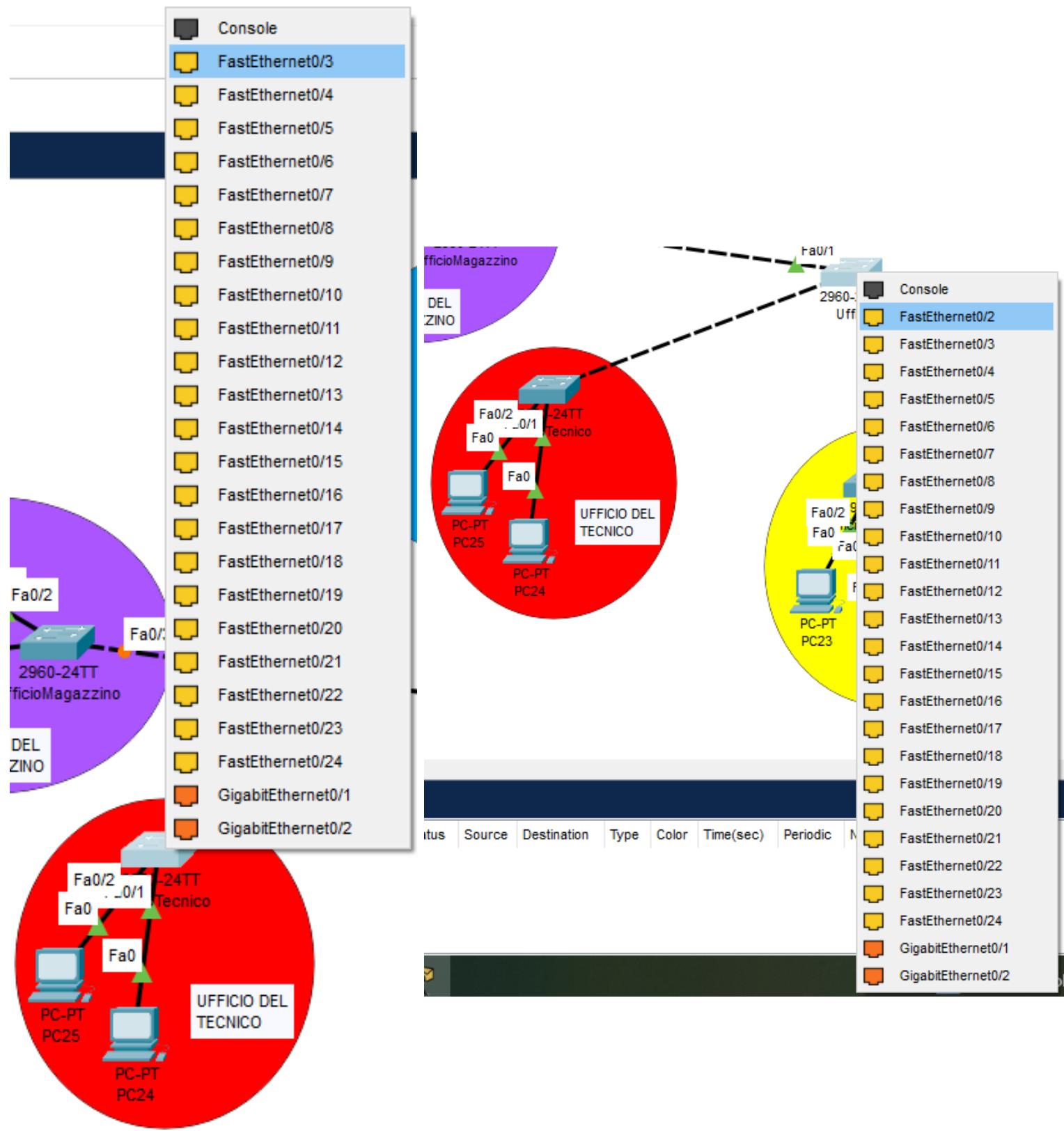


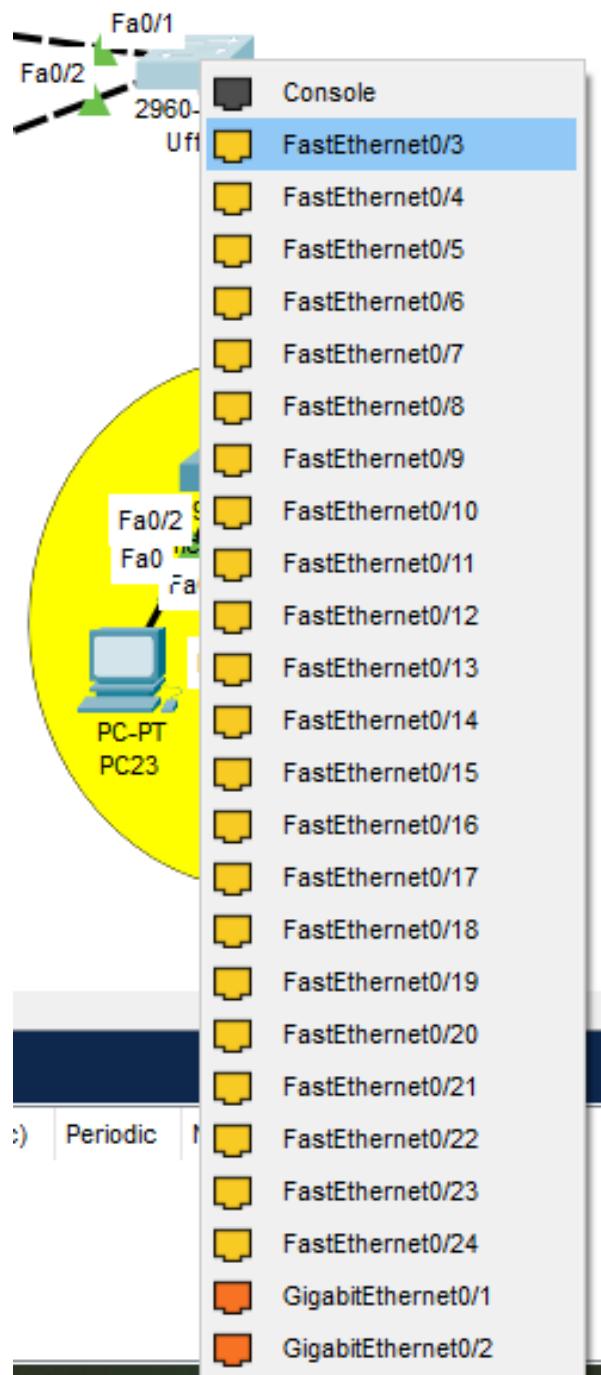
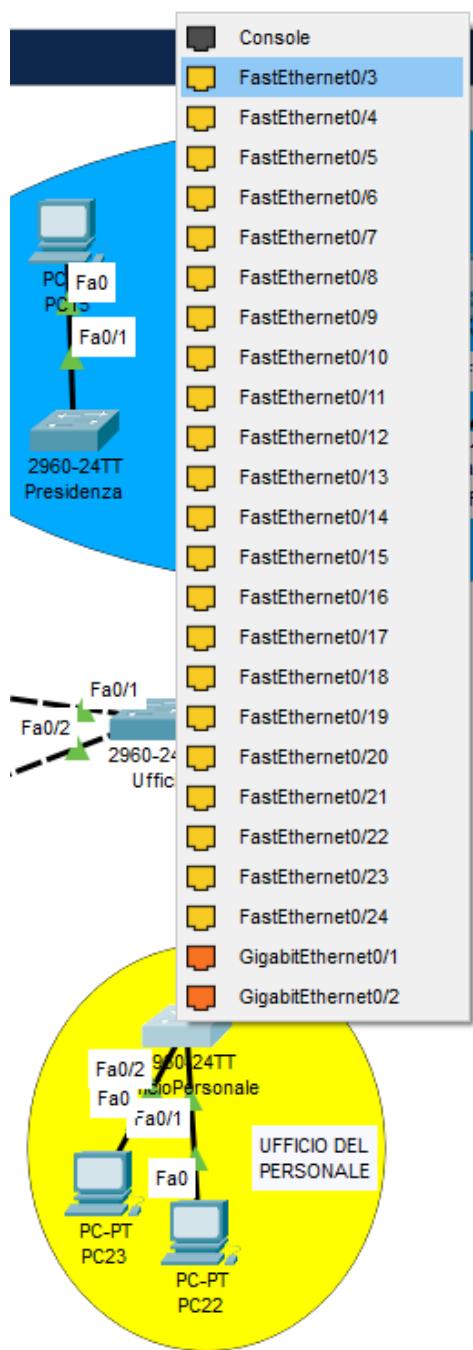


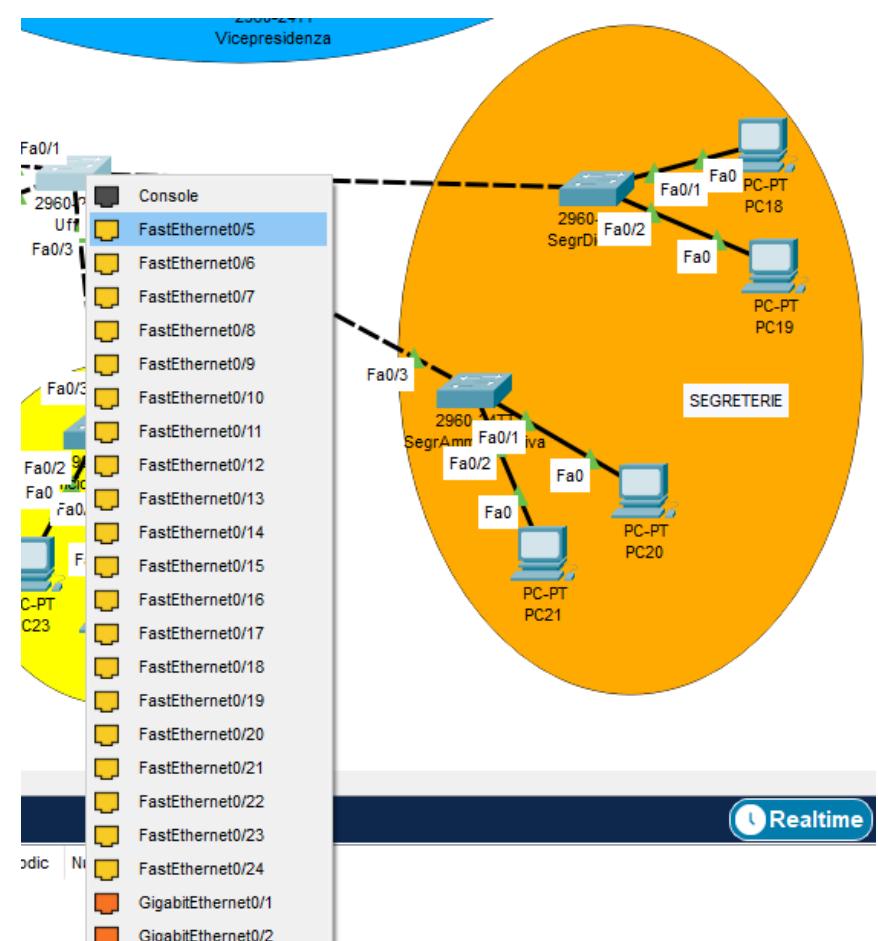
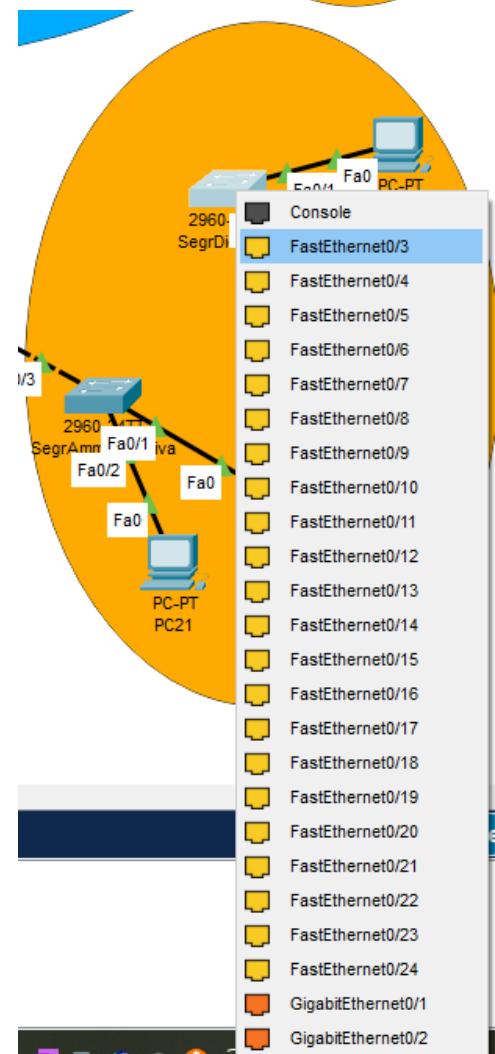
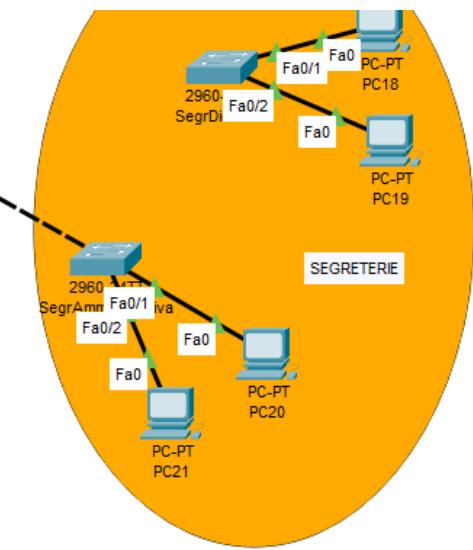
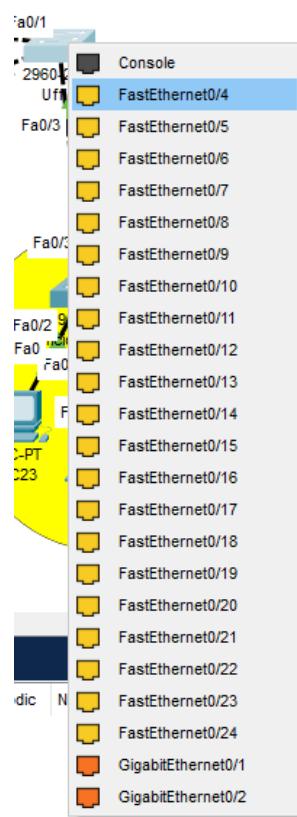
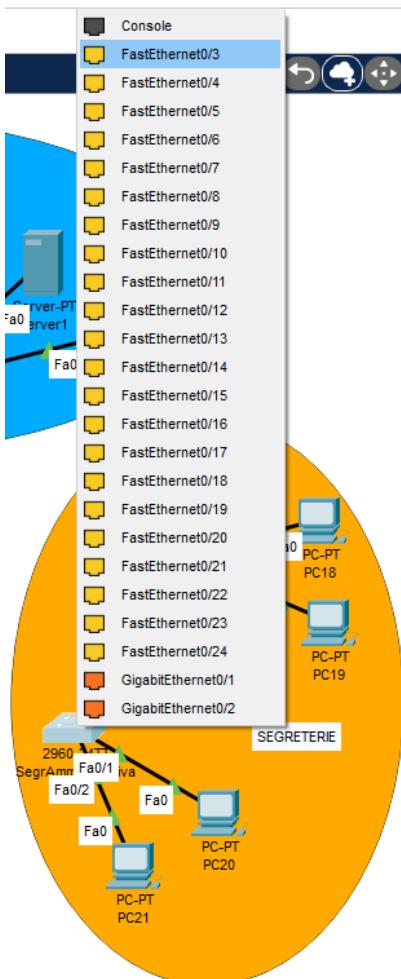
## UFFICI E UFFICI (DELLE VARIE CATEGORIE):

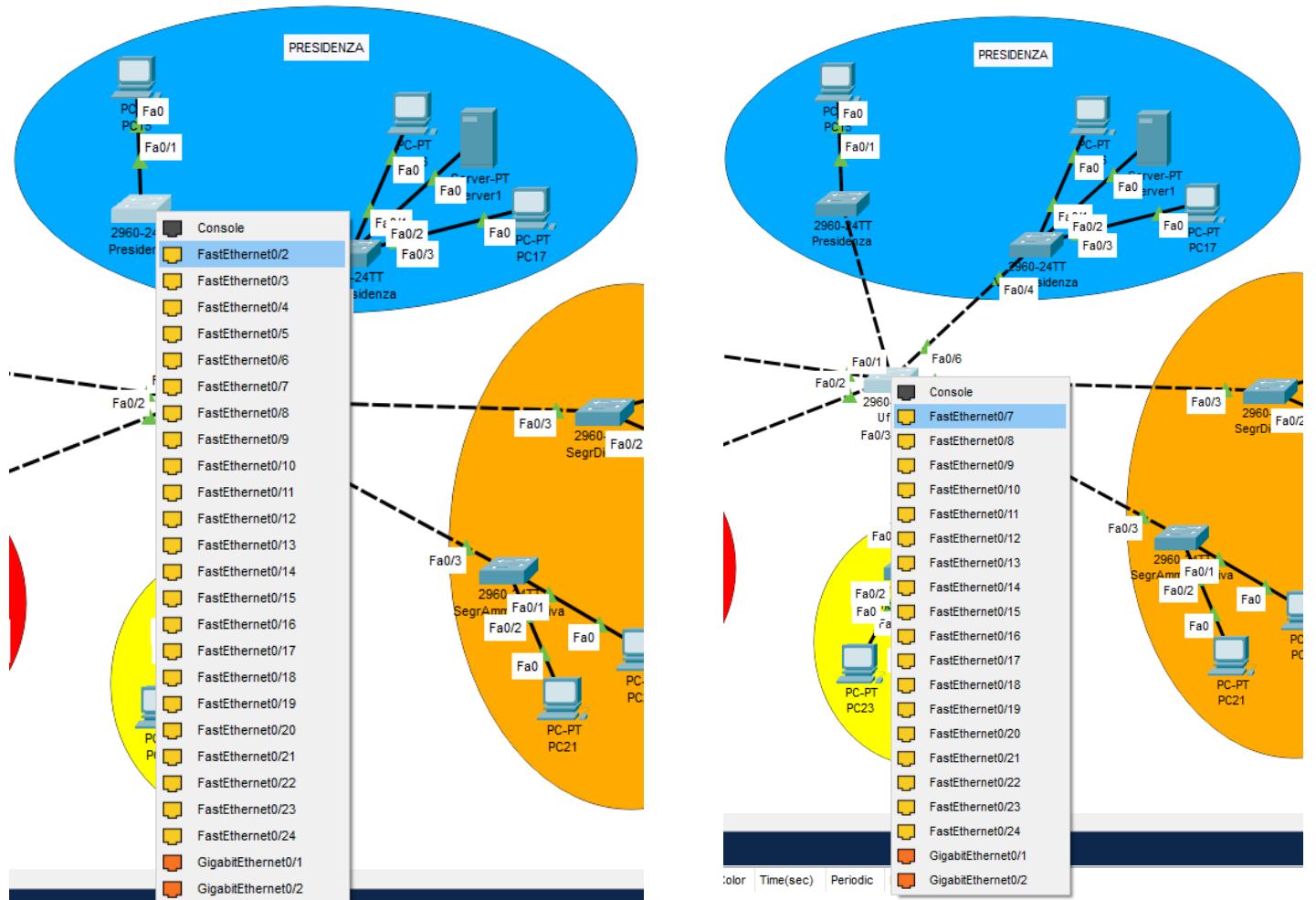
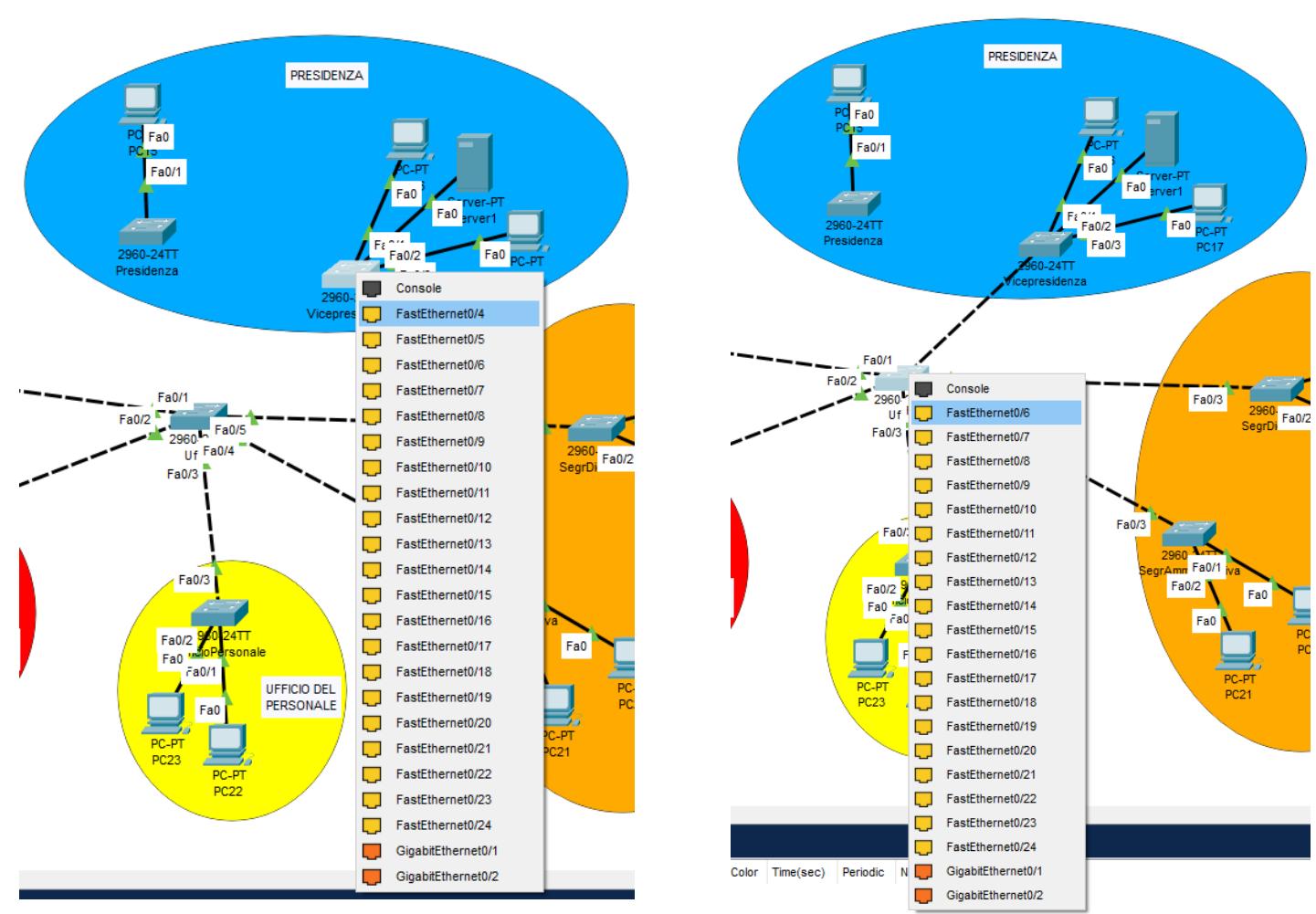
- Collegare gli switch 2960-24TT (UfficioMagazzino, UfficioTecnico, UfficioPersonale, SegrAmministrativa, SegrDidattica, Vicepresidenza e Presidenza) allo switch 2960-24TT centrale (Uffici) utilizzando le porte FastEthernet0/2 (per la Presidenza), FastEthernet0/3 (per UfficioMagazzino, UfficioTecnico, UfficioPersonale, SegrAmministrativa e per SegrDidattica) e FastEthernet0/4 (per la Vicepresidenza) e le porte FastEthernet0/1, FastEthernet0/2, FastEthernet0/3, FastEthernet0/4, FastEthernet0/5, FastEthernet0/6 e FastEthernet0/7.





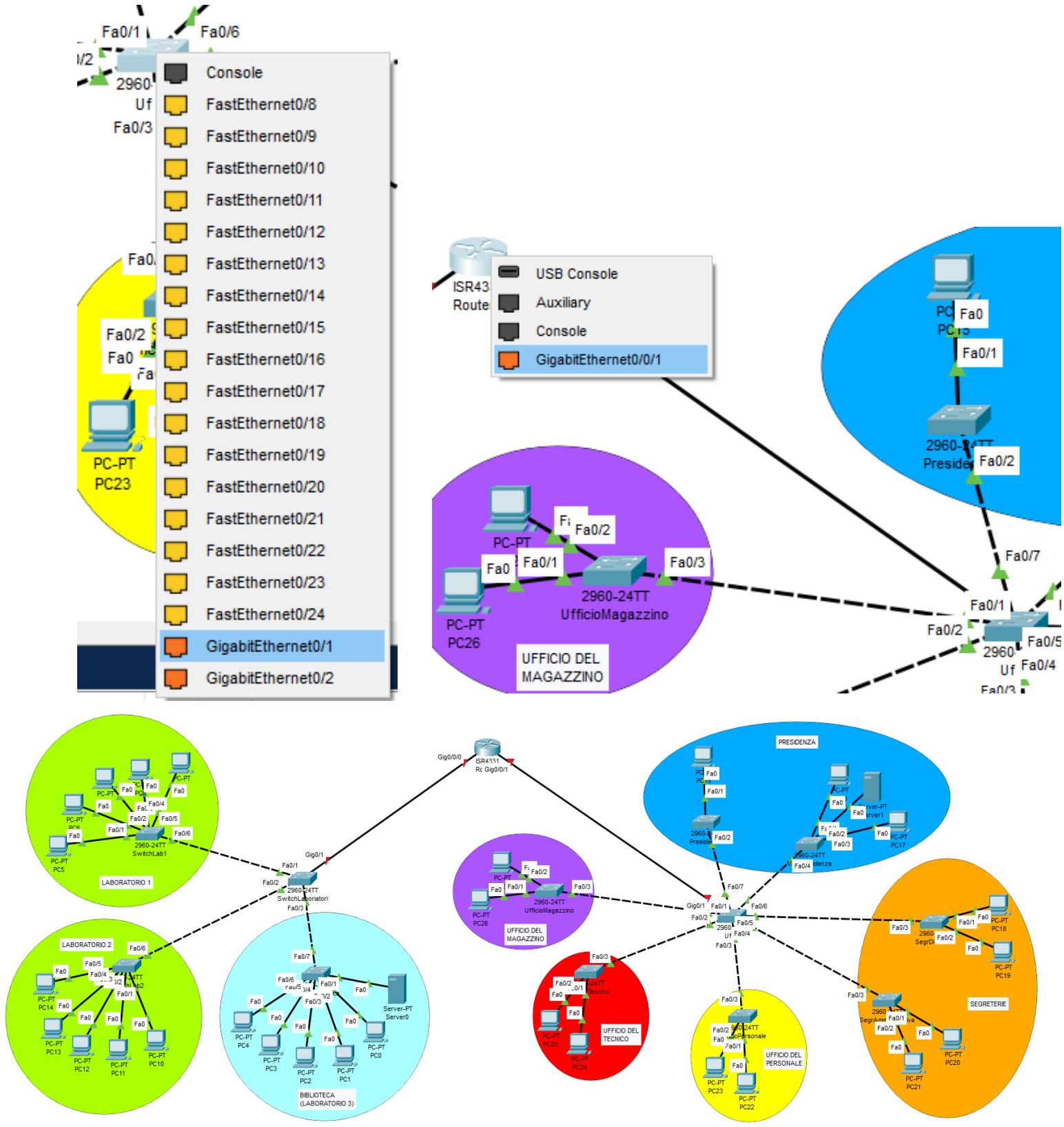






## UFFICI E ROUTER0:

- Collegare lo switch 2960-24TT (Uffici) al ISR4331 (Router0) utilizzando la porta GigabitEthernet0/1 dello switch e la porta GigabitEthernet0/0/1 del router con cavi copper straight-through.



(risultato finale)

## **Assegnazione degli indirizzi IP tramite la schermata “Config”:**

RETE DI CLASSE C SUDDIVISA IN DUE SOTTORETI:

-LABORATORI: 192.168.100.0

-UFFICI: 192.168.200.0

SUBNET MASK: 255.255.255.0

SUPPONIAMO DI AVERE UN SOLO ROUTER CON INDIRIZZI: 192.168.100.254  
192.168.200.254

PROSPICIENTI LE RISPETTIVE SOTTORETI.

HOST LABORATORI DA: 192.168.100.1 A 192.168.100.254

BROADCAST: 192.168.100.255

HOST UFFICI DA 192.168.200.1 A 192.168.200.254

BROADCAST: 192.168.200.255

ATTENZIONE! GLI INDIRIZZI HOST CON ULTIMO BYTE AD 1 LI RISERVIAVAMO PER I SERVERS  
(notare che la rete è suddivisa in questo modo)

## **Piano di indirizzamento:**

### **Laboratori:**

- Server: 192.168.100.1 (Laboratorio 3)
- Subnet Mask: 255.255.255.0
- Router Gateway: 192.168.100.254
- Host Range: 192.168.100.2 - 192.168.100.253
- Broadcast Address: 192.168.100.255

Assegnazioni per:

- 1. Laboratorio 1:** 192.168.100.2 - 192.168.100.6 (5 PC)
- 2. Laboratorio 2:** 192.168.100.7 - 192.168.100.11 (5 PC)
- 3. Laboratorio 3 (Biblioteca):** 192.168.100.12 - 192.168.100.16 (5 PC + 1 server: 192.168.100.1)

## **Uffici:**

- Server: 192.168.200.1 (Vicepresidenza)
- Subnet Mask: 255.255.255.0
- Router Gateway: 192.168.200.254
- Host Range: 192.168.200.2 - 192.168.200.253
- Broadcast Address: 192.168.200.255

Assegnazioni per:

- 1. Ufficio del Magazzino:** 192.168.200.2 - 192.168.200.3 (2 PC)
- 2. Ufficio del Tecnico:** 192.168.200.4 - 192.168.200.5 (2 PC)
- 3. Ufficio del Personale:** 192.168.200.6 - 192.168.200.7 (2 PC)
- 4. Ufficio della Segreteria Amministrativa:** 192.168.200.8 - 192.168.200.9 (2 PC)
- 5. Ufficio della Segreteria Didattica:** 192.168.200.10 - 192.168.200.11 (2 PC)
- 6. Ufficio della Vicepresidenza:** 192.168.200.12 - 192.168.200.13 (2 PC + 1 server: 192.168.200.1)
- 7. Ufficio della Presidenza:** 192.168.200.14 - 192.168.200.15 (1 PC)

## **LABORATORIO 1:**

1. Fare clic sul PC (PC-PT PC5 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.100.2
  - b. **Subnet Mask:** 255.255.255.0
4. **Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:**
  - a. **Default Gateway:** 192.168.100.254

PC5

Physical Config Desktop Programming Attributes

MODULES

- WMP300N
- PT-HOST-NM-1AM
- PT-HOST-NM-1CE
- PT-HOST-NM-1CFE
- PT-HOST-NM-1CGE
- PT-HOST-NM-1FFE
- PT-HOST-NM-1FGE
- PT-HOST-NM-1W
- PT-HOST-NM-1W-A
- PT-HOST-NM-1W-AC
- PT-HOST-NM-3G/4G
- PT-HOST-NM-COVER
- PT-HEADPHONE
- PT-MICROPHONE

Physical Device View

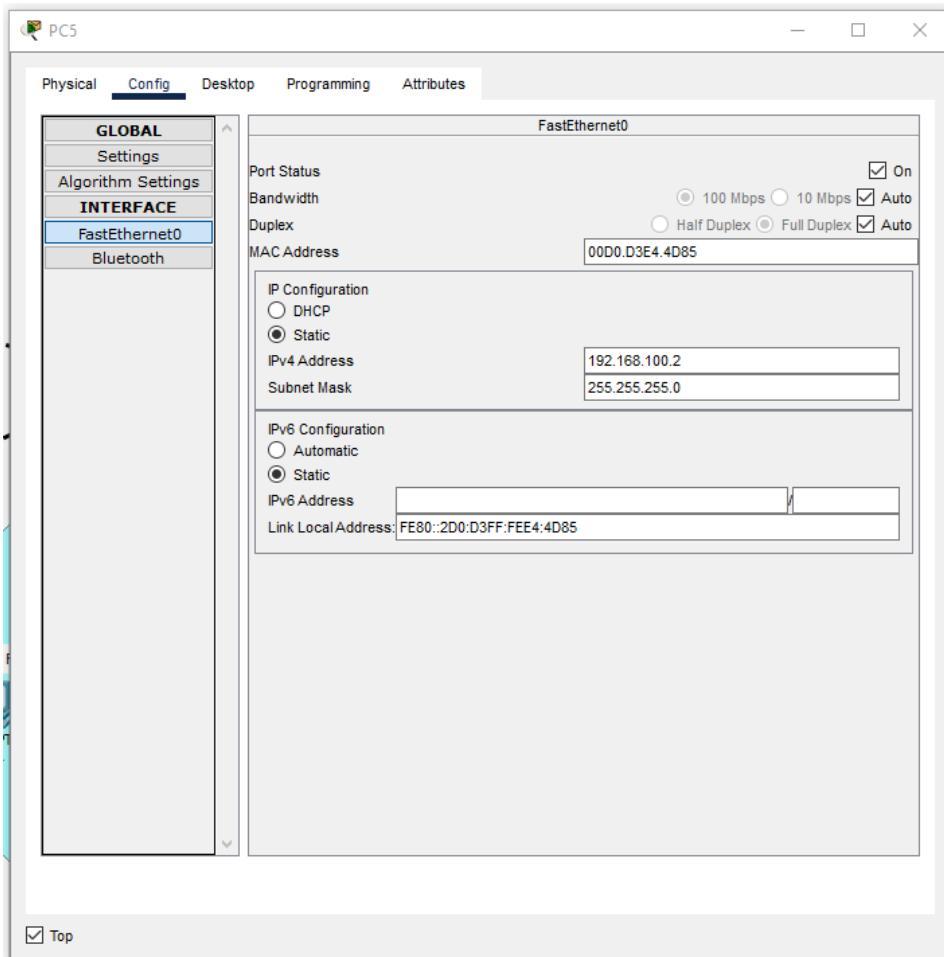
Zoom In Original Size Zoom Out

Customize Icon in Physical View

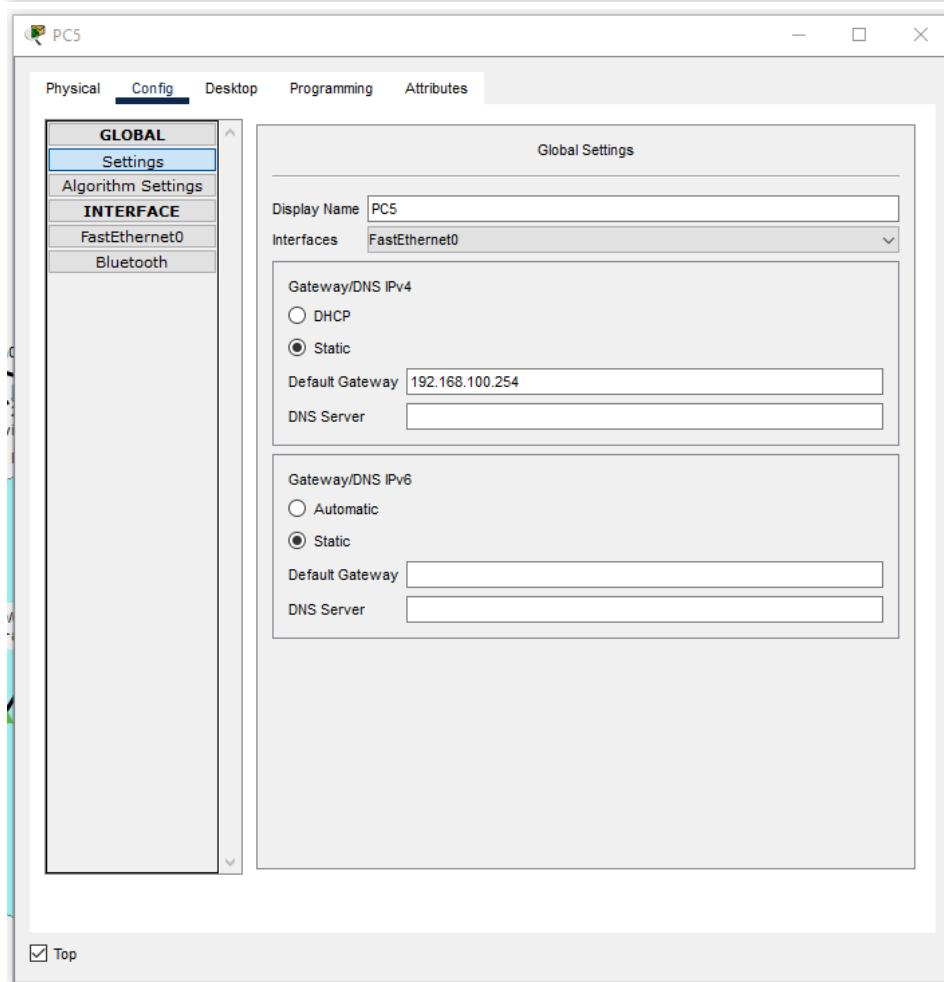
Customize Icon in Logical View

The WMP300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.

Top



Top



Top

(replicarlo per gli altri PC-PT del LAB1 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.100.254)

## **LABORATORIO 2:**

1. Fare clic sul PC (PC-PT PC10 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.100.7
  - b. **Subnet Mask:** 255.255.255.0
4. **Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:**
  - a. **Default Gateway:** 192.168.100.254

(stesso procedimento è valido per gli altri PC-PT del LAB2 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.100.254)

## **BIBLIOTECA (LABORATORIO 3):**

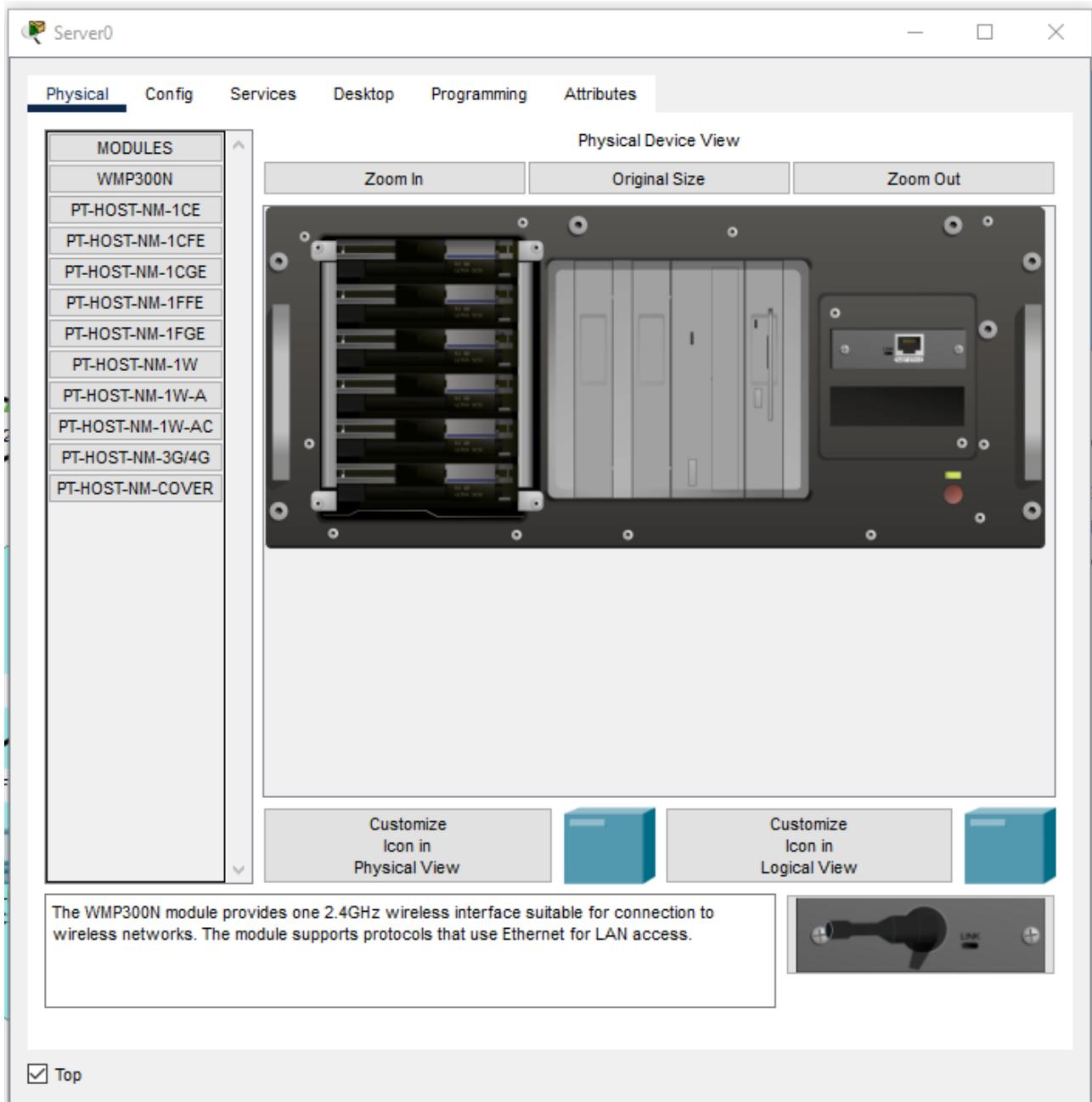
1. Fare clic sul PC (PC-PT PC0 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.100.12
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.100.254

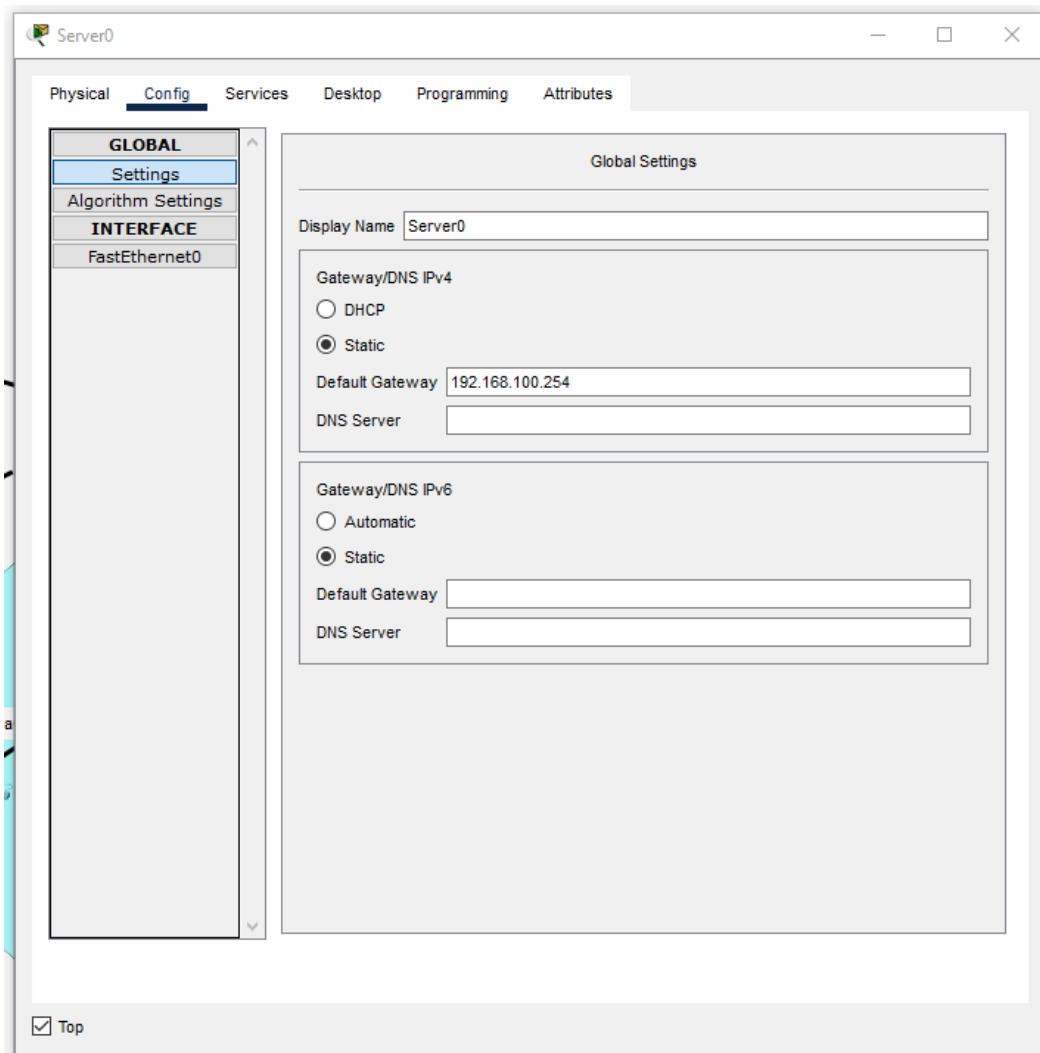
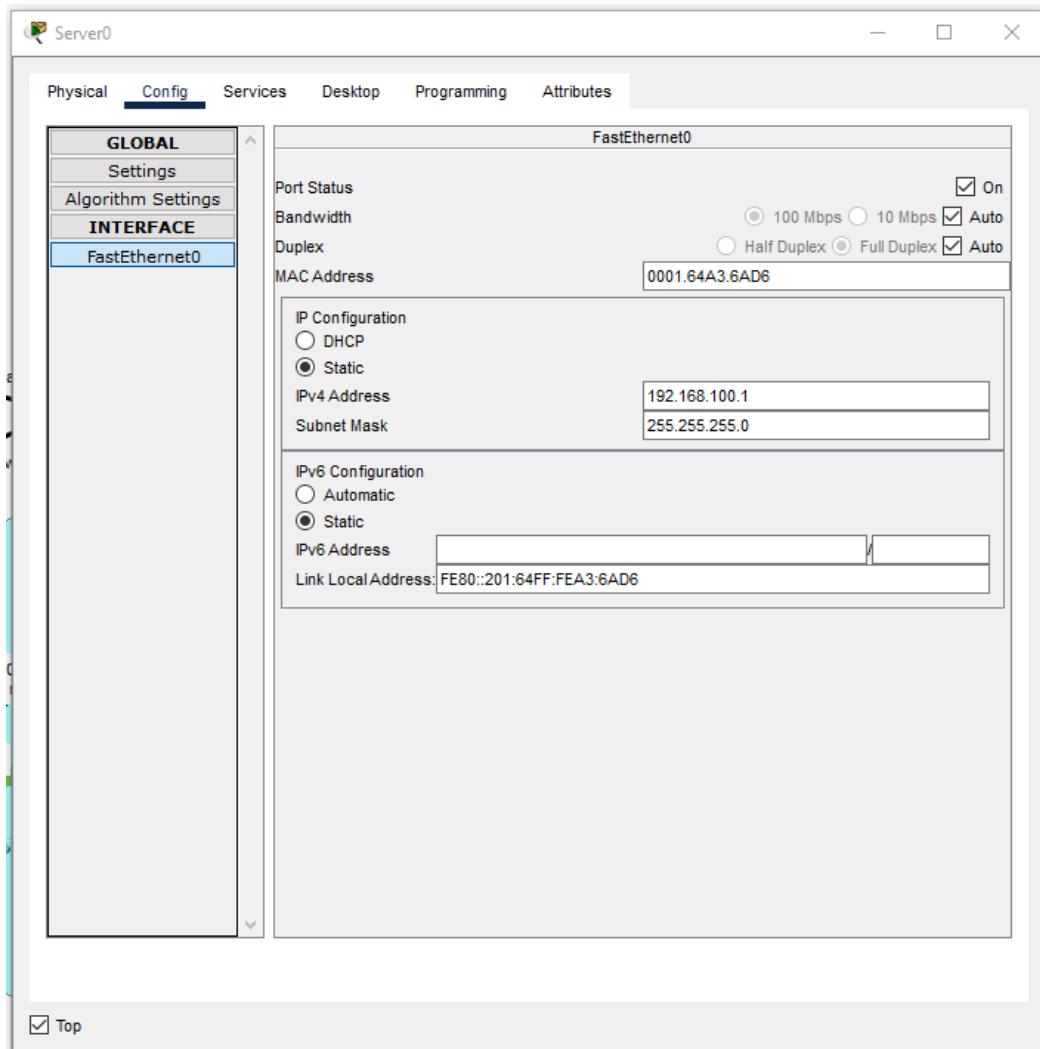
(stesso procedimento è valido per gli altri PC-PT del LAB2 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.100.254)

Per il Server del LAB3:

1. Fare clic sul server (Server-PT Server0).
2. Nella finestra che si apre, andare alla scheda "Config".
3. Fare clic su "FastEthernet0".
4. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.100.1
  - b. **Subnet Mask:** 255.255.255.0

5. Andare poi su "Settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.100.254





## **UFFICIO DEL MAGAZZINO:**

1. Fare clic sul PC (PC-PT PC26 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.2
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su "settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT27 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

## **UFFICIO DEL TECNICO:**

1. Fare clic sul PC (PC-PT PC24 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.4
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su "settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT25 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

## **UFFICIO DEL PERSONALE:**

1. Fare clic sul PC (PC-PT PC22 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.6
  - b. **Subnet Mask:** 255.255.255.0

4. Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:

- a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT23 cambiando l’IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

### **SEGRETERIA AMMINISTRATIVA:**

1. Fare clic sul PC (PC-PT PC20 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.8
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT21 cambiando l’IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

### **SEGRETERIA DIDATTICA:**

1. Fare clic sul PC (PC-PT PC18 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.10
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su “settings” e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT19 cambiando l’IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

## VICEPRESIDENZA:

1. Fare clic sul PC (PC-PT PC16 nel primo caso).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.12
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su "settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

(stesso procedimento è valido per il PC-PT17 cambiando l'IP e mantenendo la Subnet Mask 255.255.255.0 e il Gateway 192.168.200.254)

Per il Server della vicepresidenza:

1. Fare clic sul server (Server-PT Server1).
2. Nella finestra che si apre, andare alla scheda "Config".
3. Fare clic su "FastEthernet0".
4. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.1
  - b. **Subnet Mask:** 255.255.255.0
5. Andare poi su "Settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

## PRESIDENZA:

1. Fare clic sul PC (PC-PT PC15).
2. Nella finestra che si apre, andare alla scheda "Config".  
Fare clic su "FastEthernet0".
3. Inserire i seguenti dettagli:
  - a. **IPv4 Address:** 192.168.200.14
  - b. **Subnet Mask:** 255.255.255.0
4. Andare poi su "settings" e nel riquadro del Default Gateway inserire il seguente dettaglio:
  - a. **Default Gateway:** 192.168.200.254

## Configurazione degli Indirizzi IP sulle Interfacce del Router 4331:

### 1. Accedere al terminale del router:

- Selezionare il router.
- Andare alla scheda "CLI".

The screenshot shows a terminal window titled "Router0". At the top, there are tabs: "Physical", "Config", "CLI" (which is highlighted in blue), and "Attributes". Below the tabs, it says "IOS Command Line Interface" and "Press RETURN to get started!". The main text area contains the following output:

```
Router>
Router>exit

Router con0 is now available

Press RETURN to get started.

Router>
```

At the bottom right of the terminal window, there are "Copy" and "Paste" buttons. At the very bottom, there is a checkbox labeled "Top".

### 2. Accedere alla Modalità Privilegiata:

- Digitare il comando enable e premere Invio.
- Il prompt cambia da Router> a Router#.

Router>  
Router>exit  
  
Router con0 is now available  
  
Press RETURN to get started.  
  
Router>enable  
Router#

Copy      Paste

Top

### 3. Accedere alla Modalità di Configurazione Globale:

- a. Digitare il comando `configure terminal` e premere Invio.
- b. Il prompt cambia da `Router#` a `Router(config)#`.

Router>  
Router>exit  
  
Router con0 is now available  
  
Press RETURN to get started.  
  
Router>enable  
Router#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#

Copy      Paste

Top

#### 4. Configurare le Interfacce del Router:

Configurare l'interfaccia GigabitEthernet0/0/0 (RETE 1):

- a) interface GigabitEthernet0/0/0
- b) ip address 192.168.100.254 255.255.255.0
- c) no shutdown
- d) Exit

Router0

Physical Config CLI Attributes

IOS Command Line Interface

```
Router con0 is now available

Press RETURN to get started.

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#ip address 192.168.100.254 255.255.255.0
Router(config-if)#no shutdown

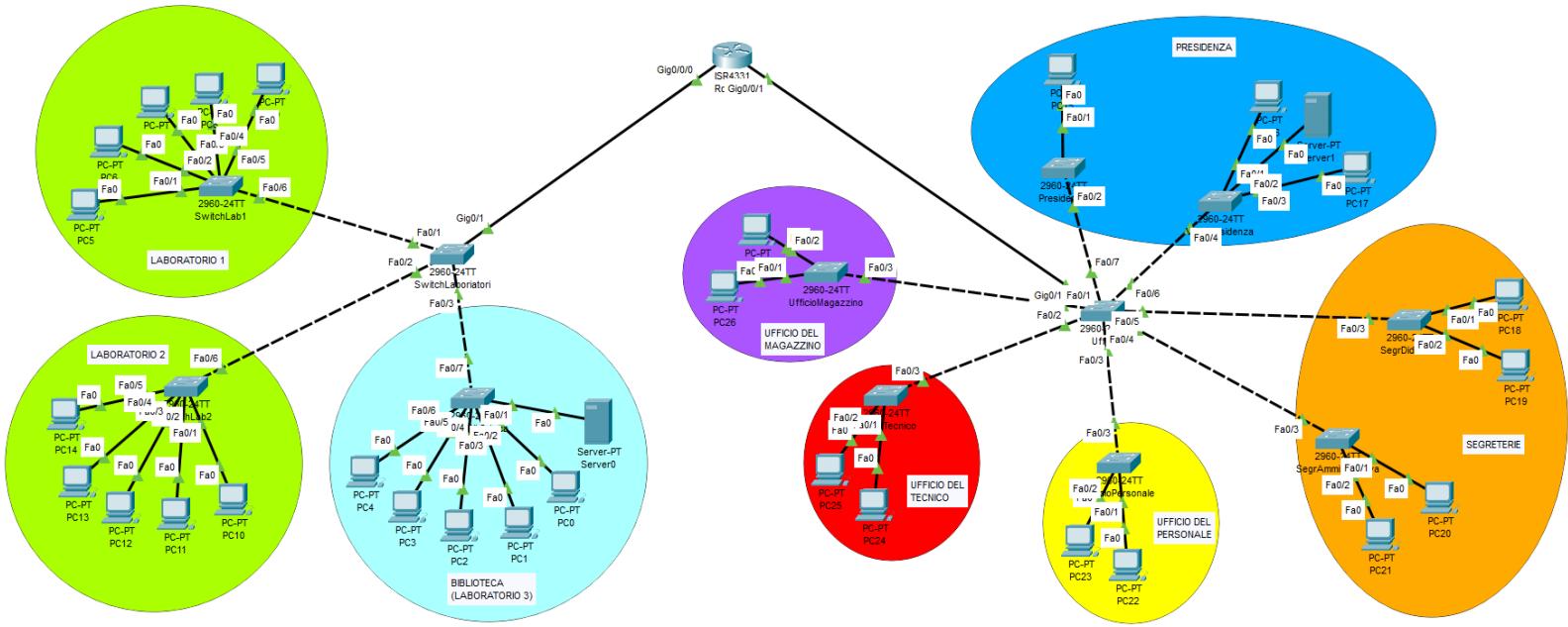
Router(config-if)#
*LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

*LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up
exit
Router(config)#[
```

Top

Copy Paste

(replicare il processo per la porta GigabitEthernet0/0/1 usando l'IP address 192.168.200.254)

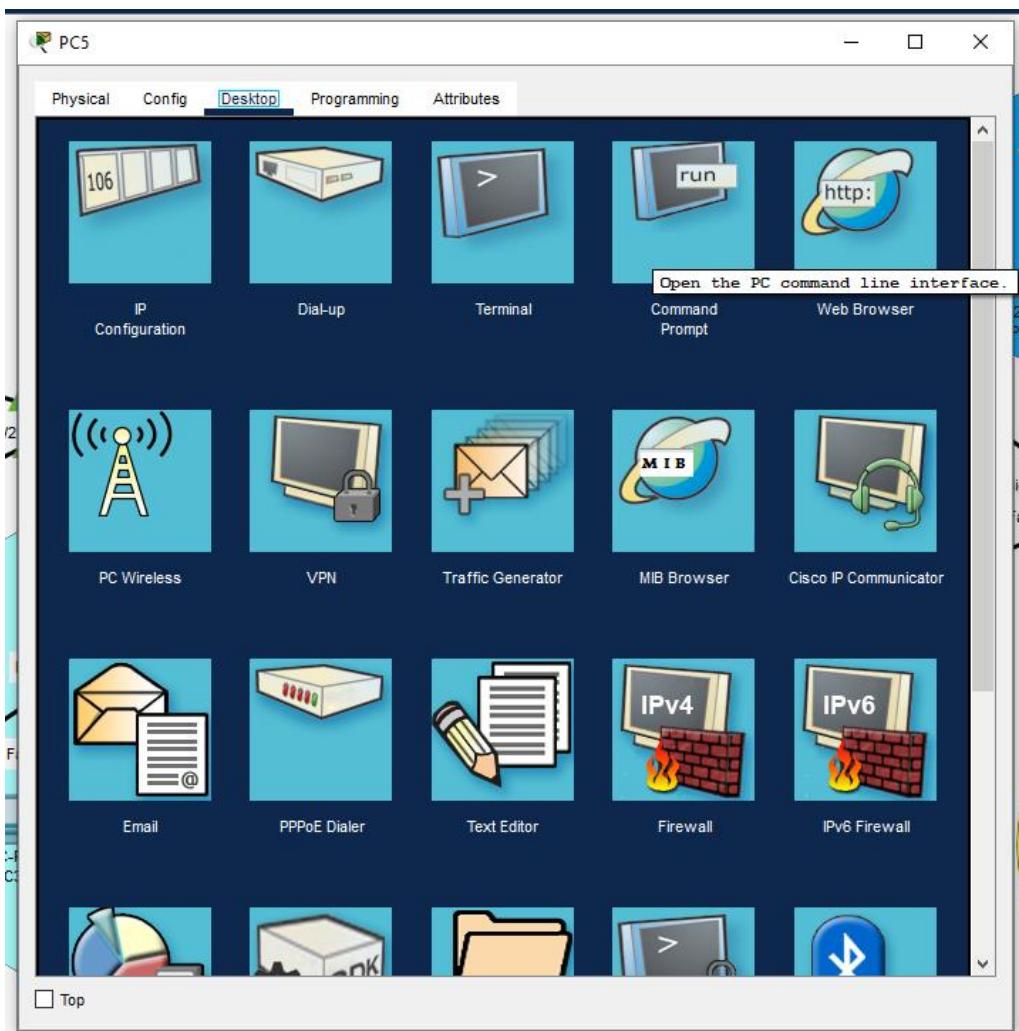


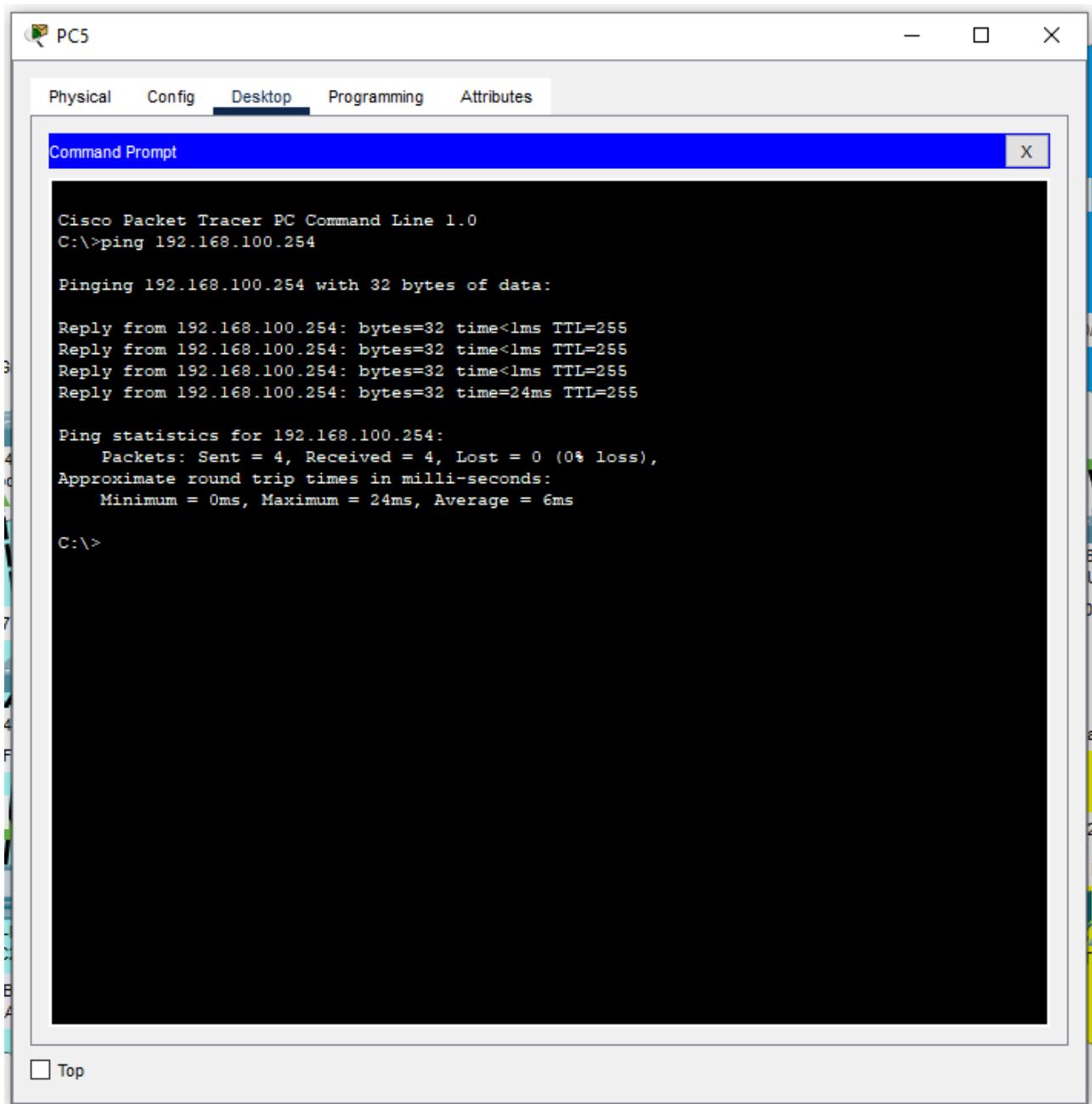
(risultato finale)

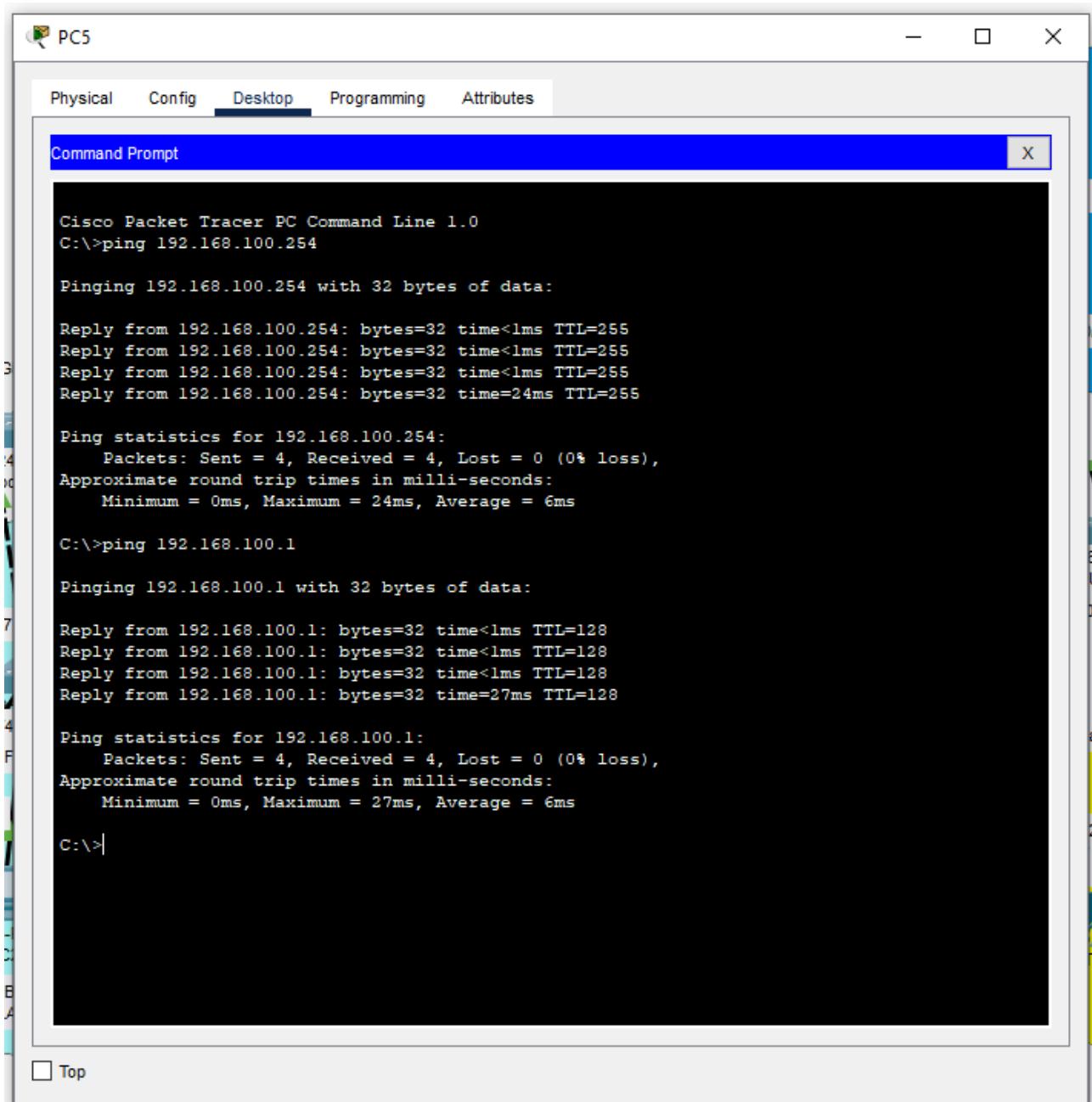
## Verificare la connettività con il comando ping:

### Laboratori:

1. Dal PC (Laboratorio 1 - IP: 192.168.100.2):
  - a. Aprire il prompt dei comandi sul PC-PT PC5.
  - b. Eseguire il comando ping verso il router: ping 192.168.100.254
  - c. Eseguire il comando ping verso il server: ping 192.168.100.1
  - d. Eseguire il comando ping verso se stesso: ping 192.168.100.2







The screenshot shows a software application window titled "PC5". The top menu bar includes "Physical", "Config", "Desktop" (which is selected), "Programming", and "Attributes". Below the menu is a "Command Prompt" window with a blue header bar containing "Command Prompt" and a close button "X". The main area of the window displays the following command-line session:

```
Reply from 192.168.100.254: bytes=32 time<1ms TTL=255
Reply from 192.168.100.254: bytes=32 time<1ms TTL=255
Reply from 192.168.100.254: bytes=32 time<1ms TTL=255
Reply from 192.168.100.254: bytes=32 time=24ms TTL=255

Ping statistics for 192.168.100.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 24ms, Average = 6ms

C:\>ping 192.168.100.1

Pinging 192.168.100.1 with 32 bytes of data:

Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time<1ms TTL=128
Reply from 192.168.100.1: bytes=32 time=27ms TTL=128

Ping statistics for 192.168.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 27ms, Average = 6ms

C:\>ping 192.168.100.2

Pinging 192.168.100.2 with 32 bytes of data:

Reply from 192.168.100.2: bytes=32 time=10ms TTL=128
Reply from 192.168.100.2: bytes=32 time=6ms TTL=128
Reply from 192.168.100.2: bytes=32 time=6ms TTL=128
Reply from 192.168.100.2: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.100.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 10ms, Average = 6ms

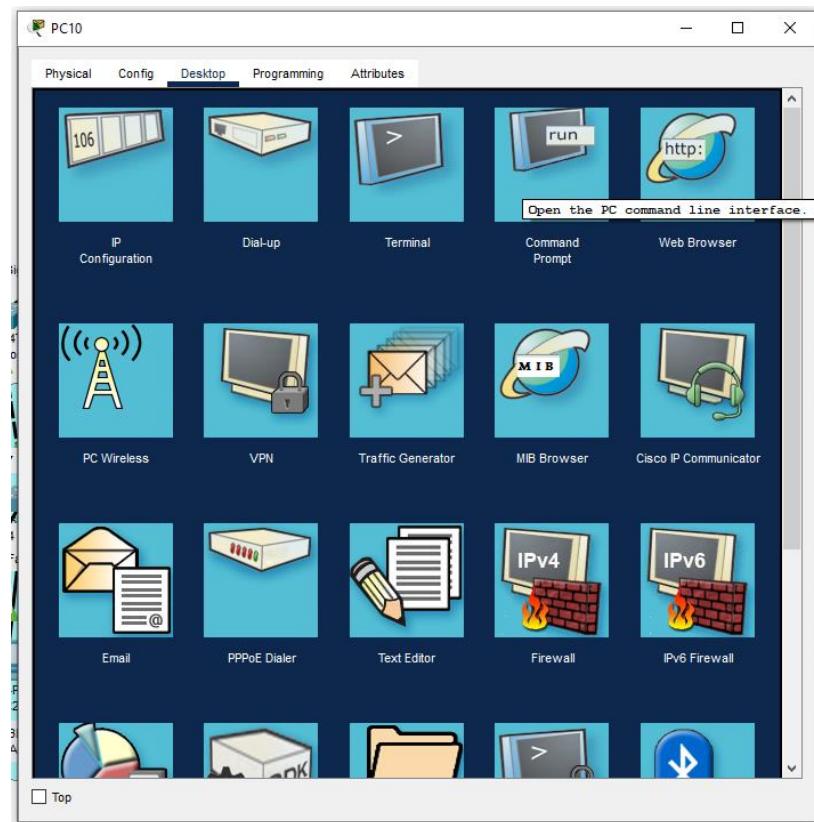
C:\>
```

At the bottom left of the window, there is a checkbox labeled "Top".

(da replicare per ogni PC del LABORATORIO 1)

## 2. Dal PC (Laboratorio 2 - IP: 192.168.100.7):

- Aprire il prompt dei comandi sul PC-PT PC10.
- Eseguire il comando ping verso il router: ping 192.168.100.254
- Eseguire il comando ping verso il server: ping 192.168.100.1
- Eseguire il comando ping verso se stesso: ping 192.168.100.7



PC10

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.254

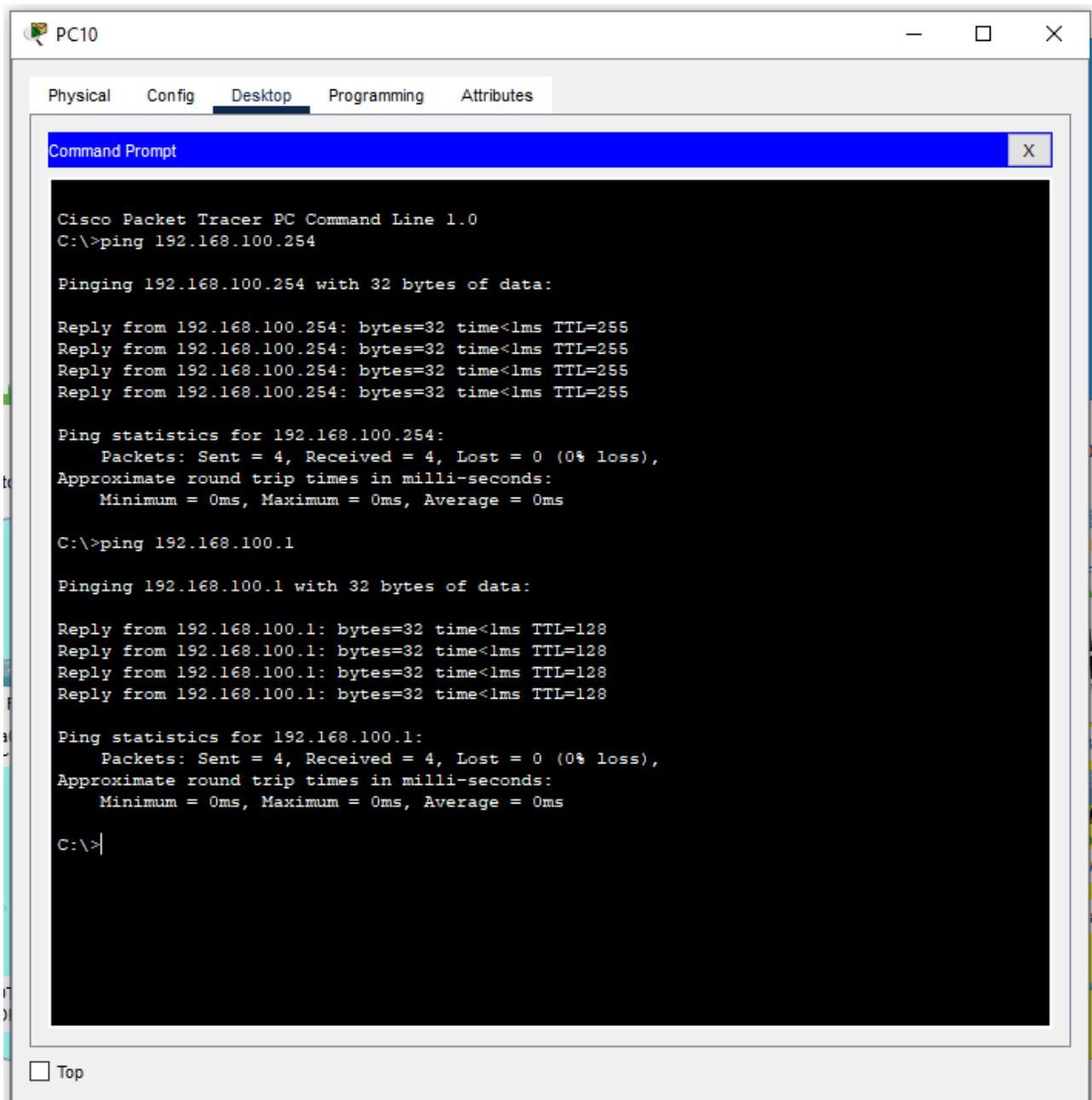
Pinging 192.168.100.254 with 32 bytes of data:

Reply from 192.168.100.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.100.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Top



The screenshot shows a software application window titled "PC10". The top menu bar includes "Physical", "Config", "Desktop" (which is selected), "Programming", and "Attributes". Below the menu is a "Command Prompt" window with a blue header bar containing "Command Prompt" and a close button "X". The main area of the window displays the following command-line session:

```
Reply from 192.168.100.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.100.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.100.1

Pinging 192.168.100.1 with 32 bytes of data:

Reply from 192.168.100.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.100.7

Pinging 192.168.100.7 with 32 bytes of data:

Reply from 192.168.100.7: bytes=32 time<1ms TTL=128
Reply from 192.168.100.7: bytes=32 time=6ms TTL=128
Reply from 192.168.100.7: bytes=32 time<1ms TTL=128
Reply from 192.168.100.7: bytes=32 time=11ms TTL=128

Ping statistics for 192.168.100.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 4ms

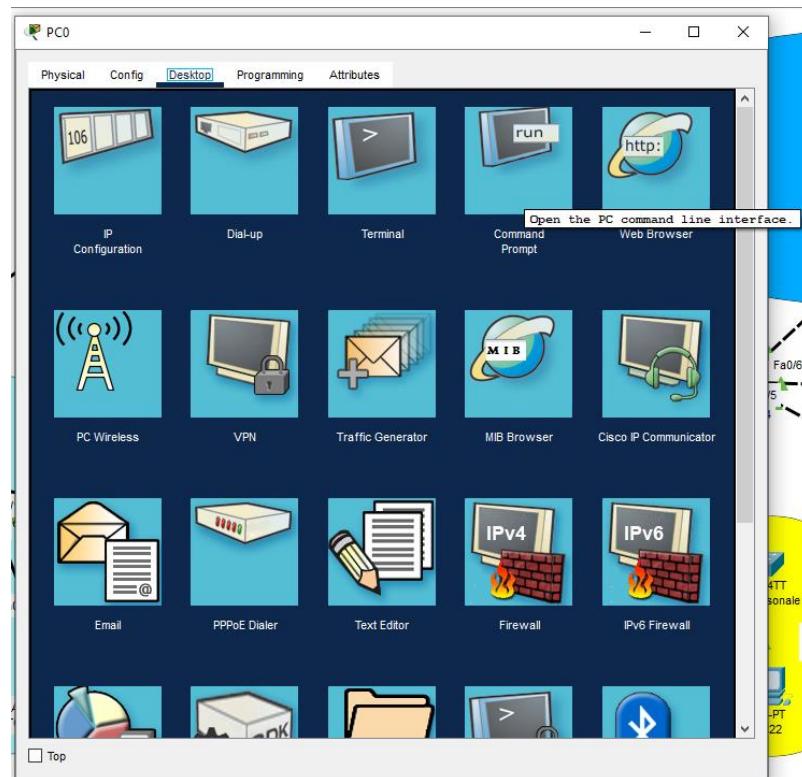
C:\>
```

At the bottom left of the main window, there is a checkbox labeled "Top".

(da replicare per ogni PC del LABORATORIO 2)

### 3. Dal PC (Laboratorio 3 - IP: 192.168.100.12):

- a. Aprire il prompt dei comandi sul PC-PT PC0.
- b. Eseguire il comando ping verso il router: ping 192.168.100.254
- c. Eseguire il comando ping verso il server: ping 192.168.100.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.100.12



The screenshot shows the Cisco Packet Tracer Command Prompt window with the 'Command Prompt' tab selected. The window title is 'PC0'. The command entered was 'ping 192.168.100.254', and the output shows the results of the ping:

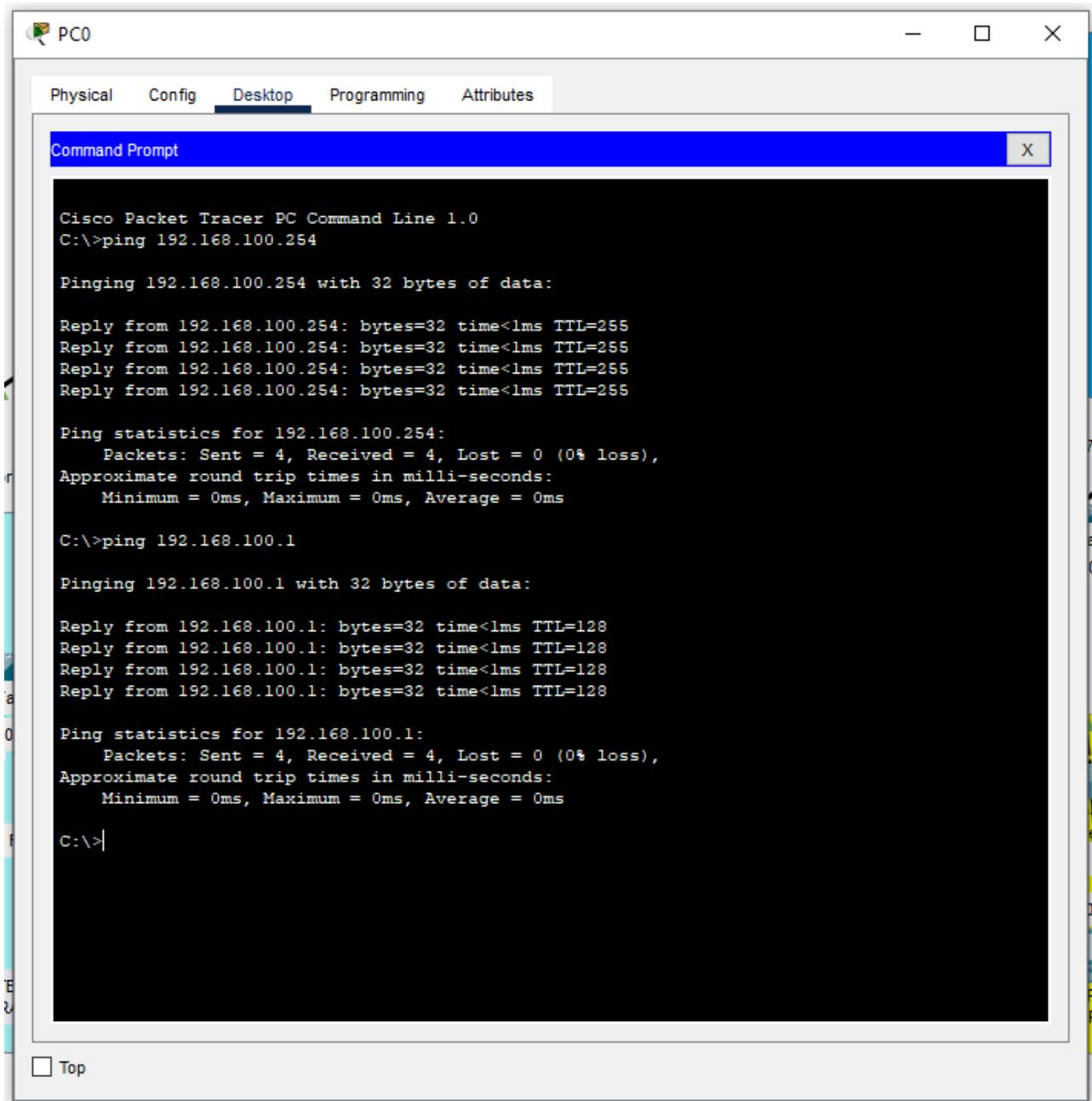
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.254

Pinging 192.168.100.254 with 32 bytes of data:

Reply from 192.168.100.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.100.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```



```
Reply from 192.168.100.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.100.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.100.1

Pinging 192.168.100.1 with 32 bytes of data:

Reply from 192.168.100.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.100.12

Pinging 192.168.100.12 with 32 bytes of data:

Reply from 192.168.100.12: bytes=32 time=3ms TTL=128
Reply from 192.168.100.12: bytes=32 time<1ms TTL=128
Reply from 192.168.100.12: bytes=32 time=9ms TTL=128
Reply from 192.168.100.12: bytes=32 time=10ms TTL=128

Ping statistics for 192.168.100.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 5ms

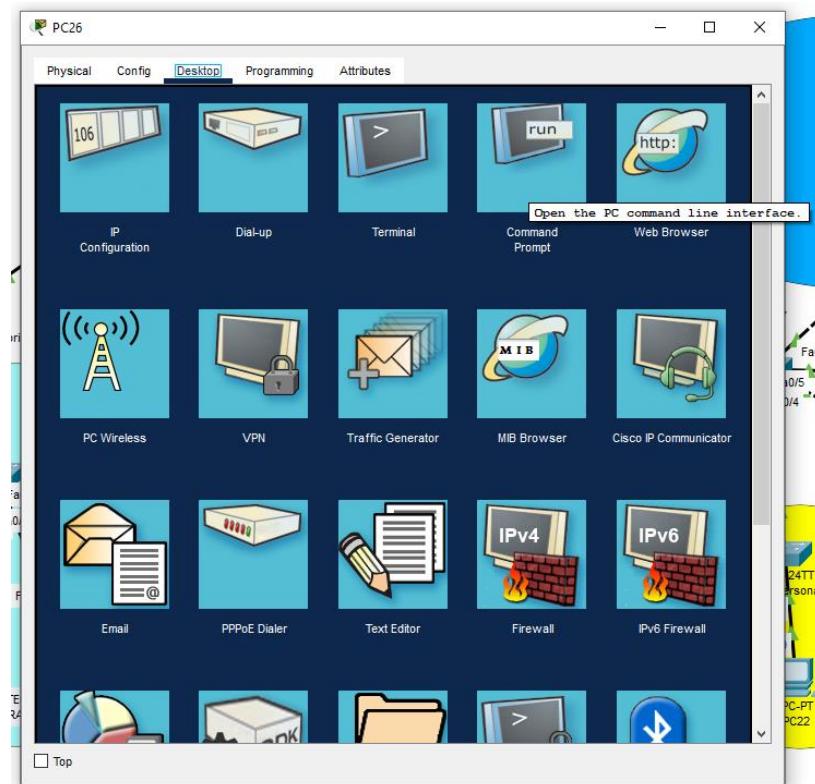
C:\>
```

Top

(da replicare per ogni PC del LABORATORIO 3)

## Uffici:

1. **Dal PC (Ufficio del Magazzino - IP: 192.168.200.2):**
  - a. Aprire il prompt dei comandi sul PC-PT PC26.
  - b. Eseguire il comando ping verso il router: ping 192.168.200.254
  - c. Eseguire il comando ping verso il server: ping 192.168.200.1
  - d. Eseguire il comando ping verso se stesso: ping 192.168.200.2



The screenshot shows the Cisco Packet Tracer Command Prompt window. The title bar says "PC26". The window has tabs: Physical, Config, Desktop (selected), Programming, and Attributes. The main area is titled "Command Prompt".

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

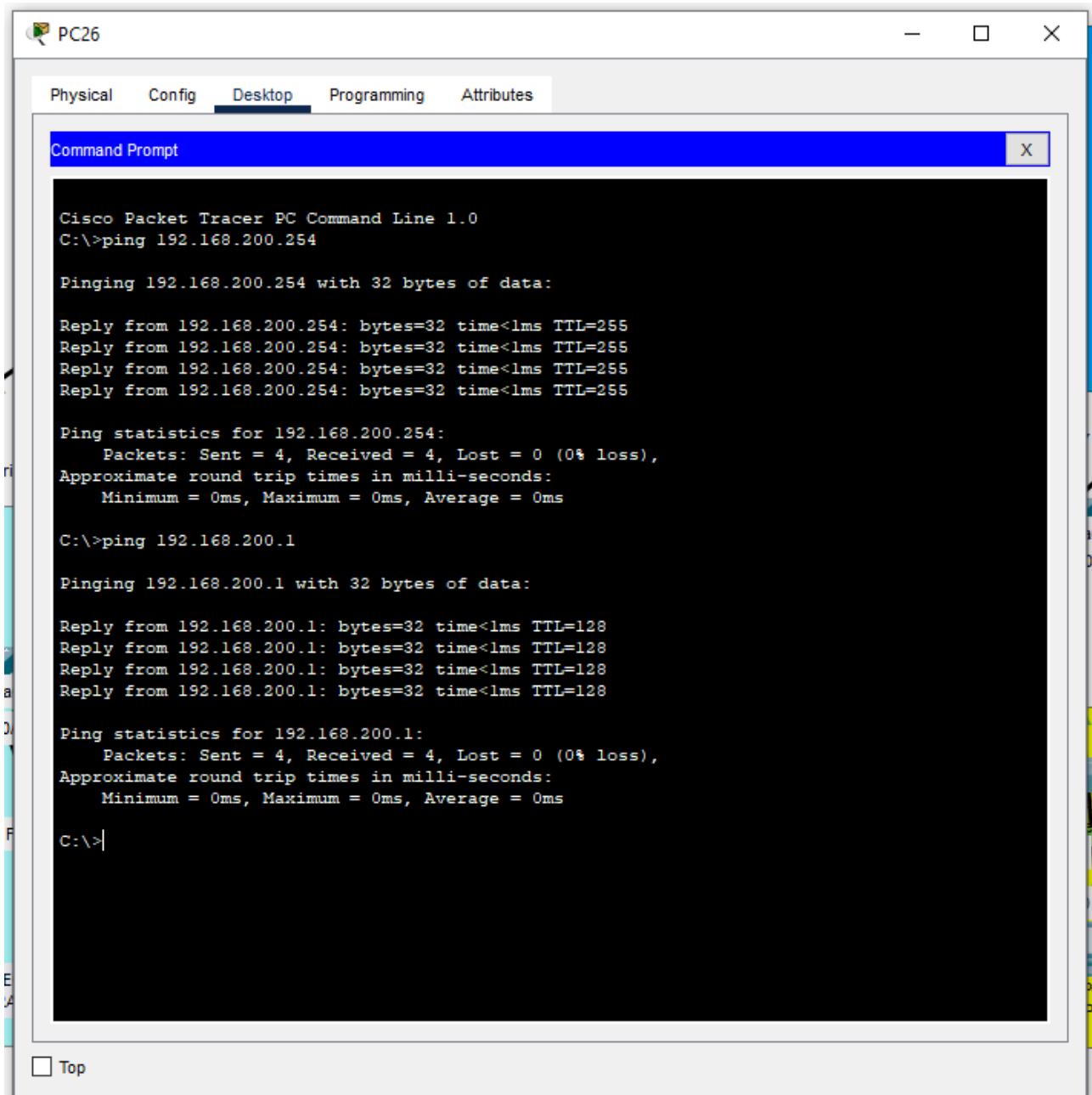
Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

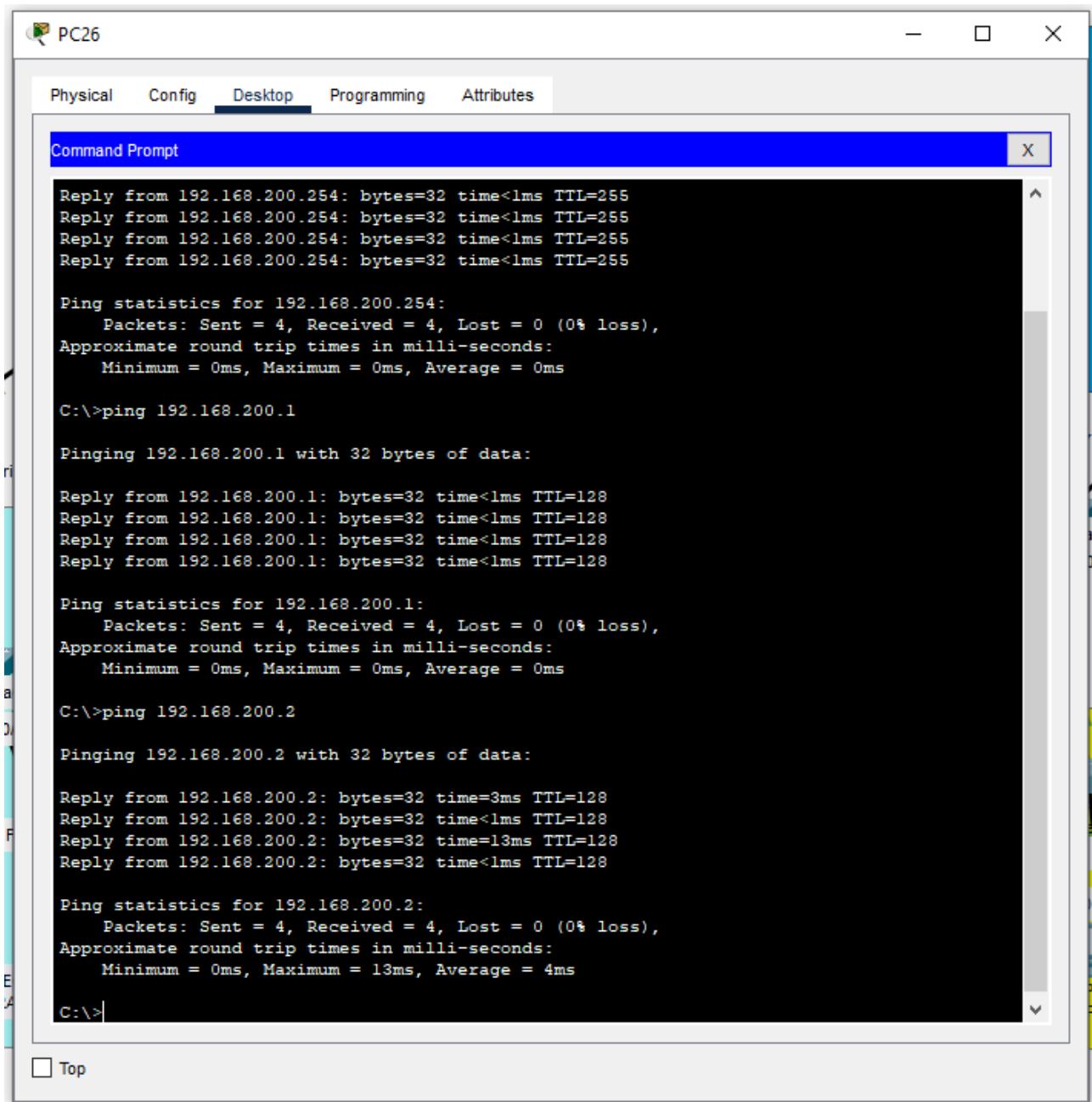
Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

At the bottom left of the Command Prompt window, there is a checkbox labeled "Top".



Top



The screenshot shows a software interface titled "PC26" with a tab bar at the top: Physical, Config, Desktop, Programming, Attributes. The "Desktop" tab is selected. Below it is a "Command Prompt" window with the following output:

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.2

Pinging 192.168.200.2 with 32 bytes of data:

Reply from 192.168.200.2: bytes=32 time=3ms TTL=128
Reply from 192.168.200.2: bytes=32 time<1ms TTL=128
Reply from 192.168.200.2: bytes=32 time=13ms TTL=128
Reply from 192.168.200.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.2:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 4ms

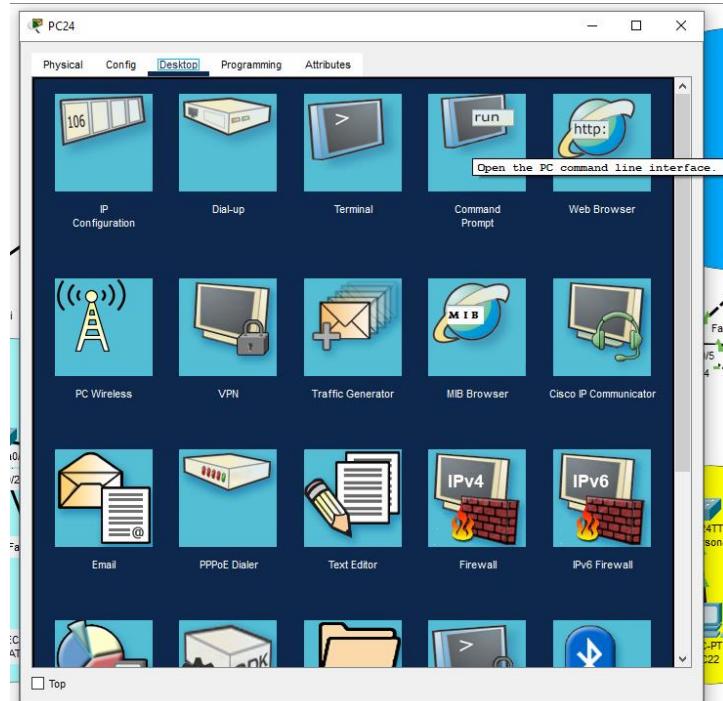
C:\>
```

Top

(da replicare per ogni PC dell'UFFICIO DEL MAGAZZINO)

## 2. Dal PC (Ufficio del Tecnico - IP: 192.168.200.4):

- a. Aprire il prompt dei comandi sul PC-PT PC24.
- b. Eseguire il comando ping verso il router: ping 192.168.200.254 c)
- c. Eseguire il comando ping verso il server: ping 192.168.200.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.200.4

A screenshot of the Cisco Packet Tracer Command Prompt window. The title bar says "PC24" and the tab bar shows "Physical", "Config", "Desktop" (selected), "Programming", and "Attributes". The main window has a blue header bar with the text "Command Prompt" and a close button. The terminal window displays the following output:

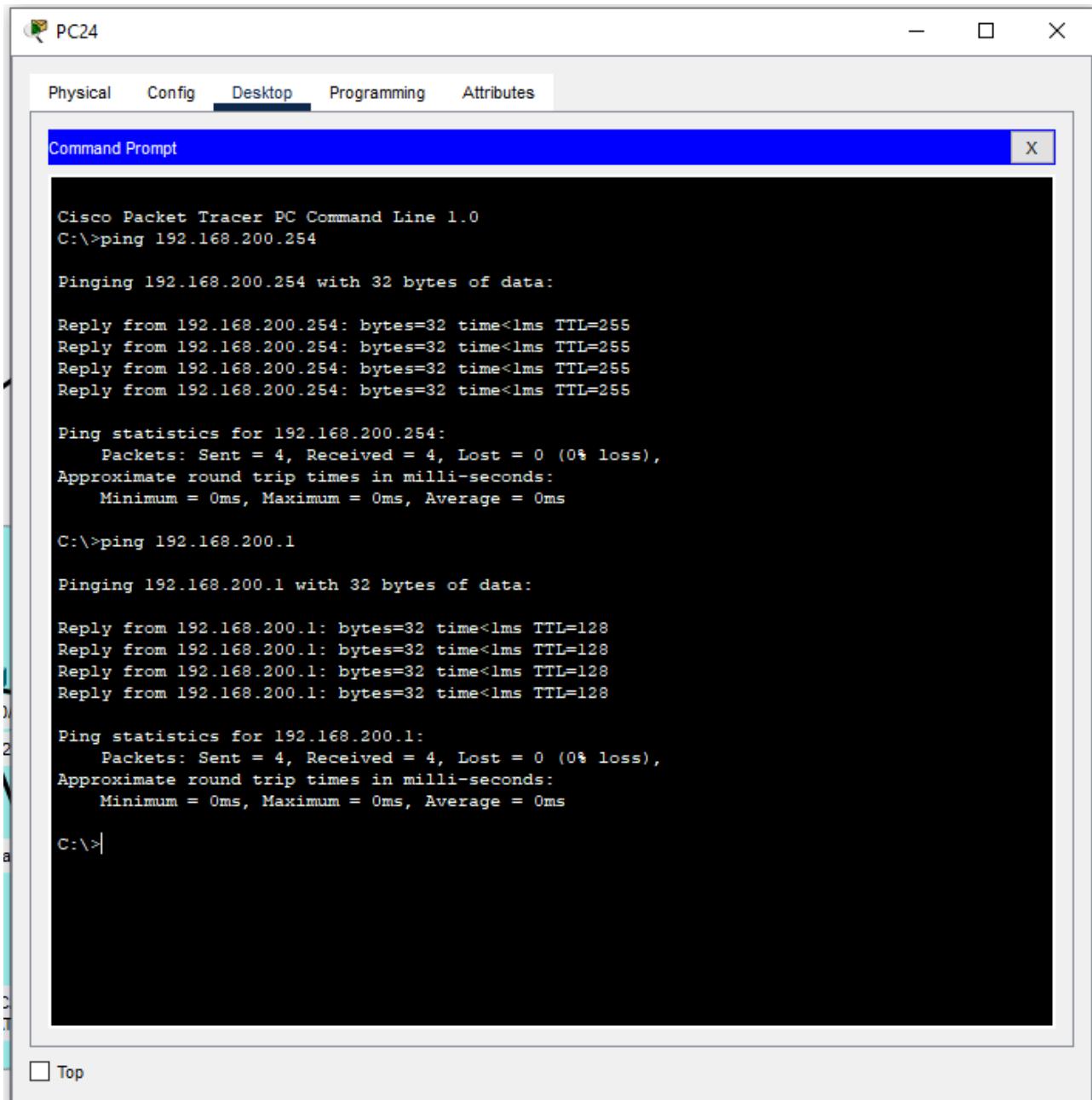
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```



Top

The screenshot shows a software application window titled "PC24". At the top, there is a menu bar with tabs: Physical, Config, Desktop, Programming, and Attributes. The "Desktop" tab is currently selected. Below the menu is a toolbar with icons for Print, Copy, Paste, and others. A main window area contains a "Command Prompt" title bar with an "X" button. The command prompt window displays the following output:

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.4

Pinging 192.168.200.4 with 32 bytes of data:

Reply from 192.168.200.4: bytes=32 time=3ms TTL=128
Reply from 192.168.200.4: bytes=32 time=13ms TTL=128
Reply from 192.168.200.4: bytes=32 time=7ms TTL=128
Reply from 192.168.200.4: bytes=32 time=10ms TTL=128

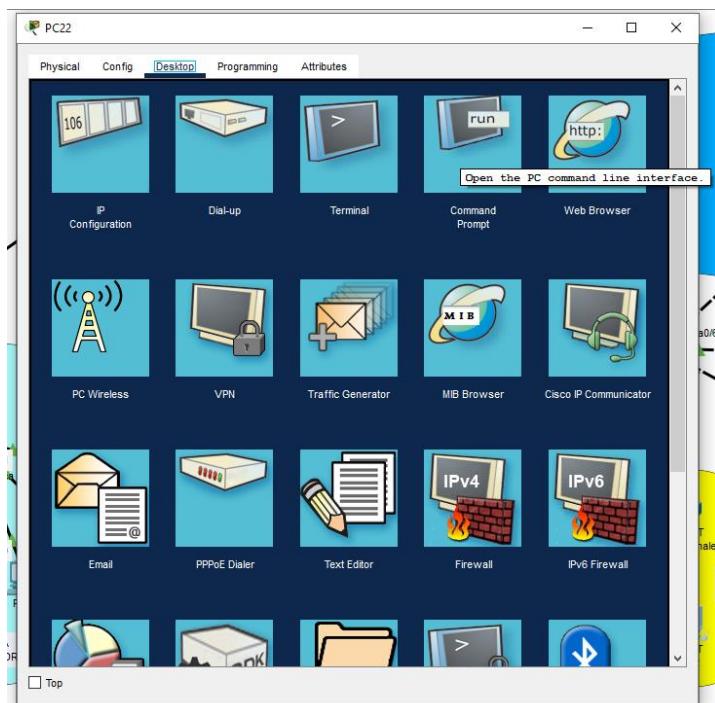
Ping statistics for 192.168.200.4:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 13ms, Average = 8ms

C:\>
```

(da replicare per ogni PC dell'UFFICIO DEL TECNICO)

### 3. Dal PC (Ufficio del Personale - IP: 192.168.200.6):

- a. Aprire il prompt dei comandi sul PC-PT PC22.
- b. Eseguire il comando ping verso il router: ping 192.168.200.254
- c. Eseguire il comando ping verso il server: ping 192.168.200.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.200.6

A screenshot of the Cisco Packet Tracer software interface, specifically the "Command Prompt" window. The title bar says "PC22". Below it is a menu bar with "Physical", "Config", "Desktop" (which is highlighted in blue), "Programming", and "Attributes". The main area is a black terminal window with white text, showing the output of a ping command.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

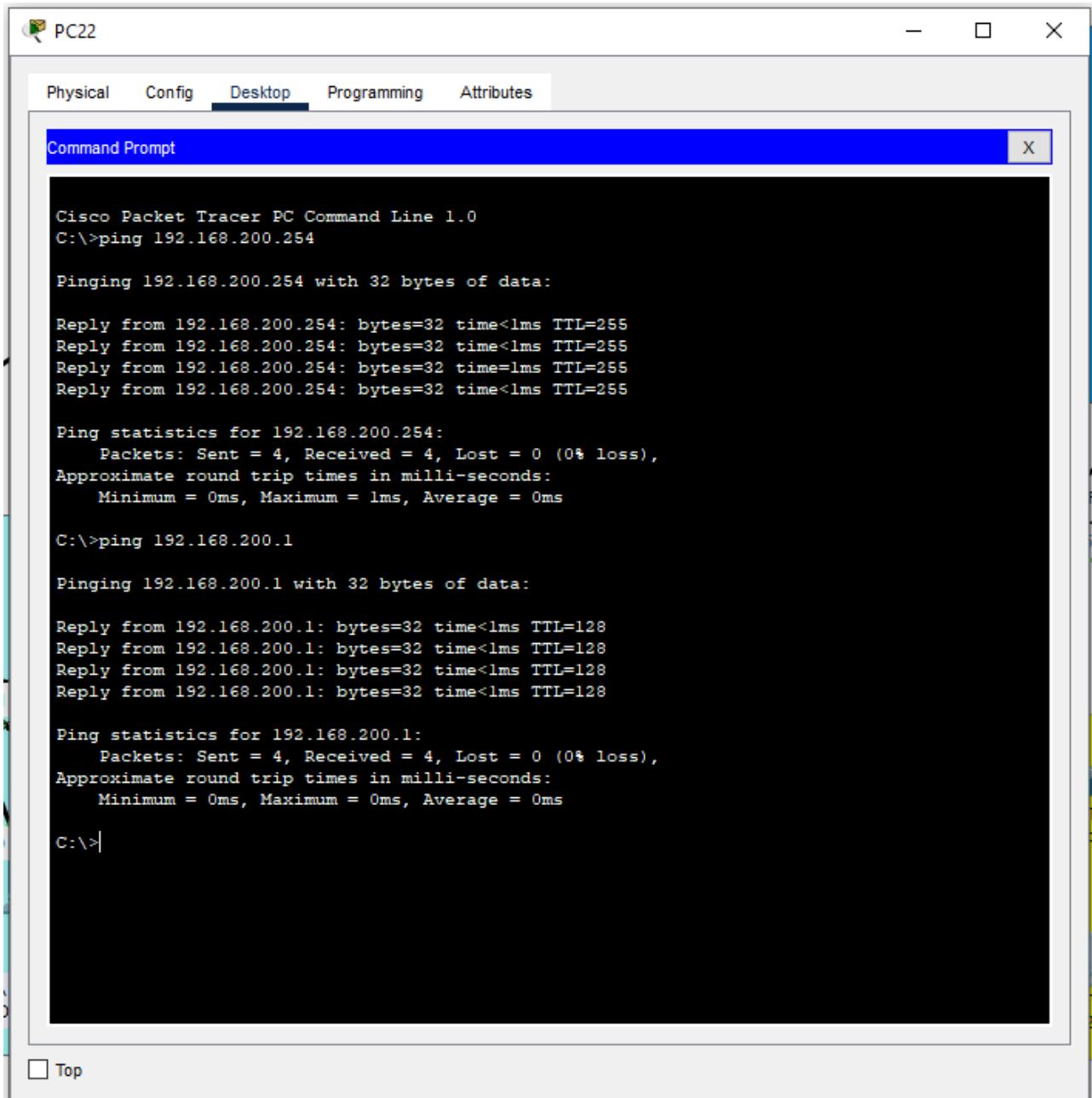
Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

At the bottom left of the terminal window is a checkbox labeled "Top".



Top

The screenshot shows a software application window titled "PC22". The top menu bar includes "Physical", "Config", "Desktop" (which is selected), "Programming", and "Attributes". Below the menu is a "Command Prompt" window with a blue header bar containing "Command Prompt" and a close button "X". The main area of the window displays the following command-line session:

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.6

Pinging 192.168.200.6 with 32 bytes of data:

Reply from 192.168.200.6: bytes=32 time=3ms TTL=128
Reply from 192.168.200.6: bytes=32 time<1ms TTL=128
Reply from 192.168.200.6: bytes=32 time=6ms TTL=128
Reply from 192.168.200.6: bytes=32 time=13ms TTL=128

Ping statistics for 192.168.200.6:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 5ms

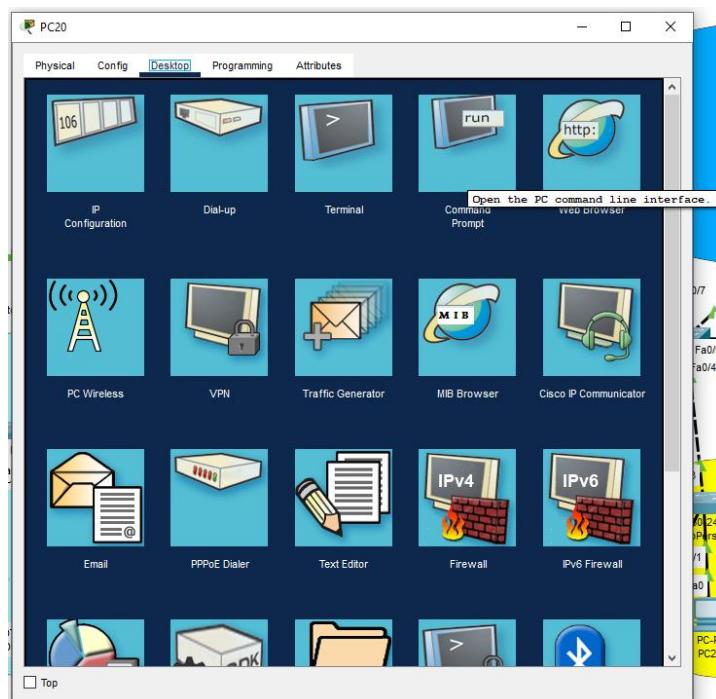
C:\>
```

At the bottom left of the window, there is a checkbox labeled "Top".

(da replicare per ogni PC dell'UFFICIO DEL PERSONALE)

#### 4. Dal PC (Ufficio della Segreteria Amministrativa - IP: 192.168.200.8):

- Aprire il prompt dei comandi sul PC-PT PC20.
- Eseguire il comando ping verso il router: ping 192.168.200.254
- Eseguire il comando ping verso il server: ping 192.168.200.1
- Eseguire il comando ping verso se stesso: ping 192.168.200.8

A screenshot of the Cisco Packet Tracer Command Prompt window. The title bar says "PC20". The menu bar shows "Physical", "Config", "Desktop" (selected), "Programming", and "Attributes". The command prompt window has a blue header bar with "Command Prompt" and a close button. The main text area displays the following output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

PC20

Physical Config Desktop Programming Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

Top

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.8

Pinging 192.168.200.8 with 32 bytes of data:

Reply from 192.168.200.8: bytes=32 time=3ms TTL=128
Reply from 192.168.200.8: bytes=32 time=7ms TTL=128
Reply from 192.168.200.8: bytes=32 time=14ms TTL=128
Reply from 192.168.200.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 14ms, Average = 6ms

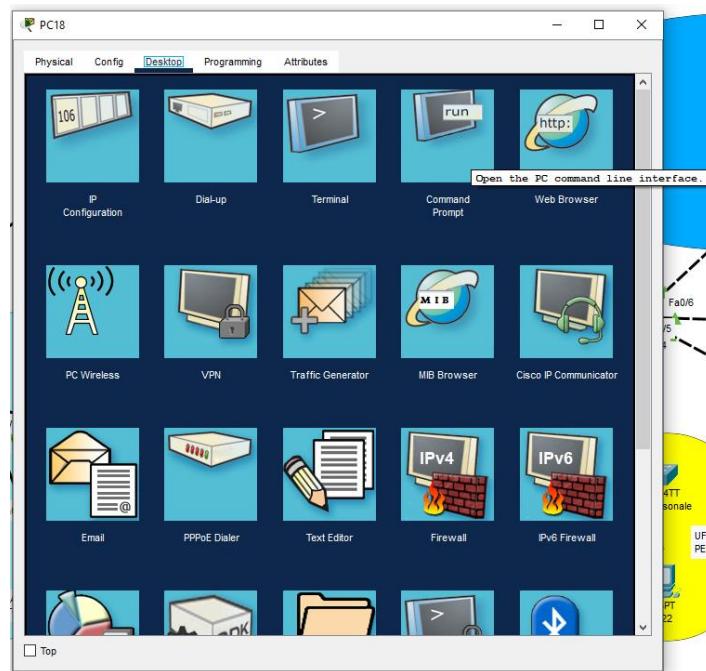
C:\>
```

Top

(da replicare per ogni PC dell'UFFICIO DELLA SEGRETERIA AMMINISTRATIVA)

## 5. Dal PC (Ufficio della Segreteria Didattica - IP: 192.168.200.10):

- a. Aprire il prompt dei comandi sul PC-PT PC18.
- b. Eseguire il comando ping verso il router: ping 192.168.200.254
- c. Eseguire il comando ping verso il server: ping 192.168.200.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.200.10



The screenshot shows the Cisco Packet Tracer Command Prompt window. The title bar says "PC18". The tabs at the top are: Physical, Config, Desktop (selected), Programming, and Attributes. The main area is titled "Command Prompt" and contains the following text output from a ping command:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

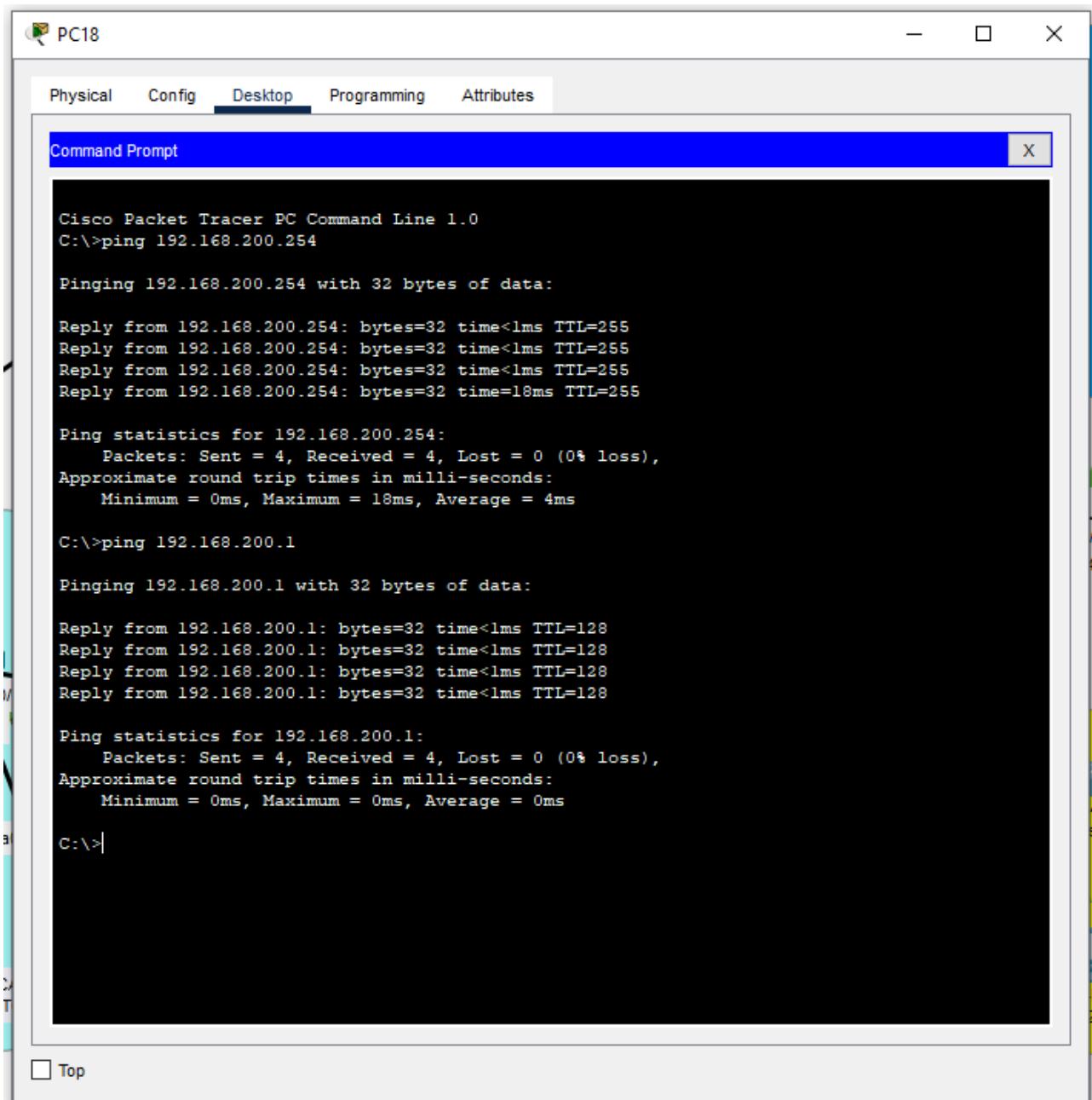
Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=18ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 18ms, Average = 4ms

C:\>|
```

At the bottom left, there is a "Top" button.



The screenshot shows a software application window titled "PC18". The top menu bar includes "Physical", "Config", "Desktop" (which is selected), "Programming", and "Attributes". Below the menu is a "Command Prompt" window with a blue header bar containing the title and a close button ("X"). The command prompt window displays the following ping results:

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=18ms TTL=255

Ping statistics for 192.168.200.254:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 18ms, Average = 4ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.10

Pinging 192.168.200.10 with 32 bytes of data:

Reply from 192.168.200.10: bytes=32 time=1ms TTL=128
Reply from 192.168.200.10: bytes=32 time=4ms TTL=128
Reply from 192.168.200.10: bytes=32 time=4ms TTL=128
Reply from 192.168.200.10: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.200.10:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 4ms, Average = 2ms

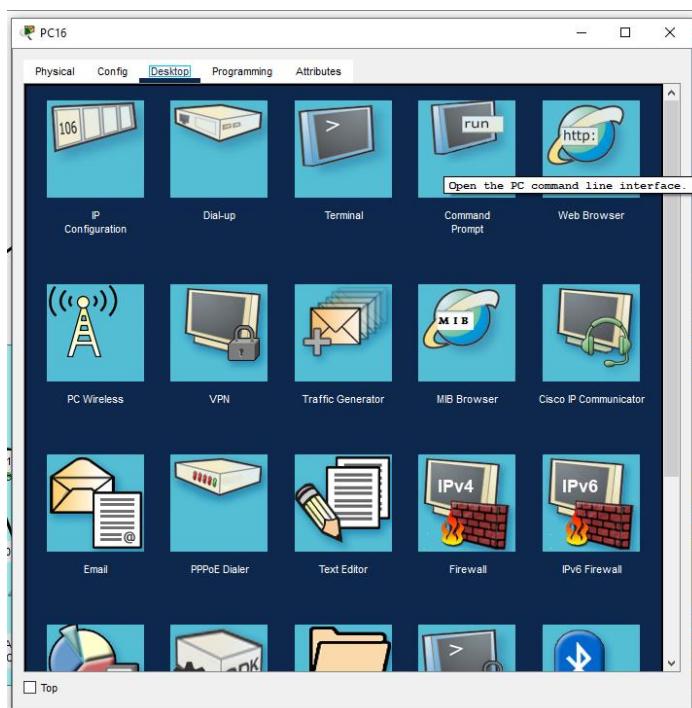
C:\>
```

Top

(da replicare per ogni PC dell'UFFICIO DELLA SEGRETERIA DIDATTICA)

## 6. Dal PC (Ufficio della Vicepresidenza - IP: 192.168.200.12):

- a. Aprire il prompt dei comandi sul PC-PT PC16.
- b. Eseguire il comando ping verso il router: ping 192.168.200.254
- c. Eseguire il comando ping verso il server: ping 192.168.200.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.200.12



The screenshot shows the Cisco Packet Tracer command prompt window. The title bar says "PC16" and the tab bar has "Physical", "Config", "Desktop" (selected), "Programming", and "Attributes". The main area is titled "Command Prompt" and contains the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=19ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 19ms, Average = 4ms

C:\>|
```

At the bottom left of the command prompt window, there is a checkbox labeled "Top".

PC16

Physical Config Desktop Programming Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=19ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 19ms, Average = 4ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Top

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.12

Pinging 192.168.200.12 with 32 bytes of data:

Reply from 192.168.200.12: bytes=32 time=12ms TTL=128
Reply from 192.168.200.12: bytes=32 time=3ms TTL=128
Reply from 192.168.200.12: bytes=32 time=3ms TTL=128
Reply from 192.168.200.12: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.200.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 12ms, Average = 4ms

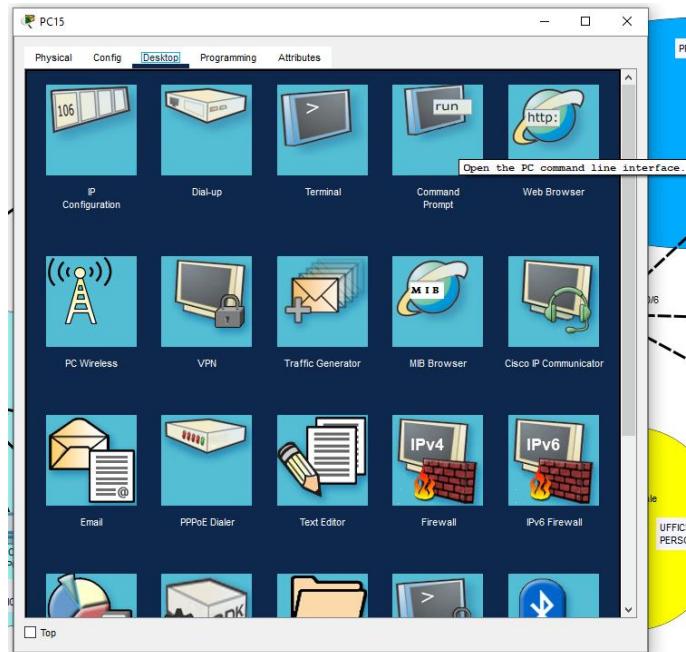
C:\>
```

Top

(da replicare per ogni PC dell'UFFICIO DELLA VOCEPRESIDENZA)

## 7. Dal PC (Ufficio della Presidenza - IP: 192.168.200.14):

- a. Aprire il prompt dei comandi sul PC.
- b. Eseguire il comando ping verso il router: ping 192.168.200.254
- c. Eseguire il comando ping verso il server: ping 192.168.200.1
- d. Eseguire il comando ping verso se stesso: ping 192.168.200.14



The screenshot shows the Cisco Packet Tracer Command Prompt window. The title bar says "PC15". The tabs at the top are Physical, Config, Desktop (selected), Programming, and Attributes. The main window displays the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=21ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 21ms, Average = 5ms

C:\>
```

A small checkbox labeled "Top" is located at the bottom left of the window.

PC15

Physical Config Desktop Programming Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.254

Pinging 192.168.200.254 with 32 bytes of data:

Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=21ms TTL=255

Ping statistics for 192.168.200.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 21ms, Average = 5ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Top

PC15

Physical Config Desktop Programming Attributes

Command Prompt X

```
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time<1ms TTL=255
Reply from 192.168.200.254: bytes=32 time=21ms TTL=255

Ping statistics for 192.168.200.254:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 21ms, Average = 5ms

C:\>ping 192.168.200.1

Pinging 192.168.200.1 with 32 bytes of data:

Reply from 192.168.200.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.200.14

Pinging 192.168.200.14 with 32 bytes of data:

Reply from 192.168.200.14: bytes=32 time=12ms TTL=128
Reply from 192.168.200.14: bytes=32 time=6ms TTL=128
Reply from 192.168.200.14: bytes=32 time<1ms TTL=128
Reply from 192.168.200.14: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.200.14:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 12ms, Average = 4ms

C:\>
```

Top