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Curso Técnico em Redes de Computadores

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Cássio de Albuquerque

Comutação de Redes

São Paulo - SP

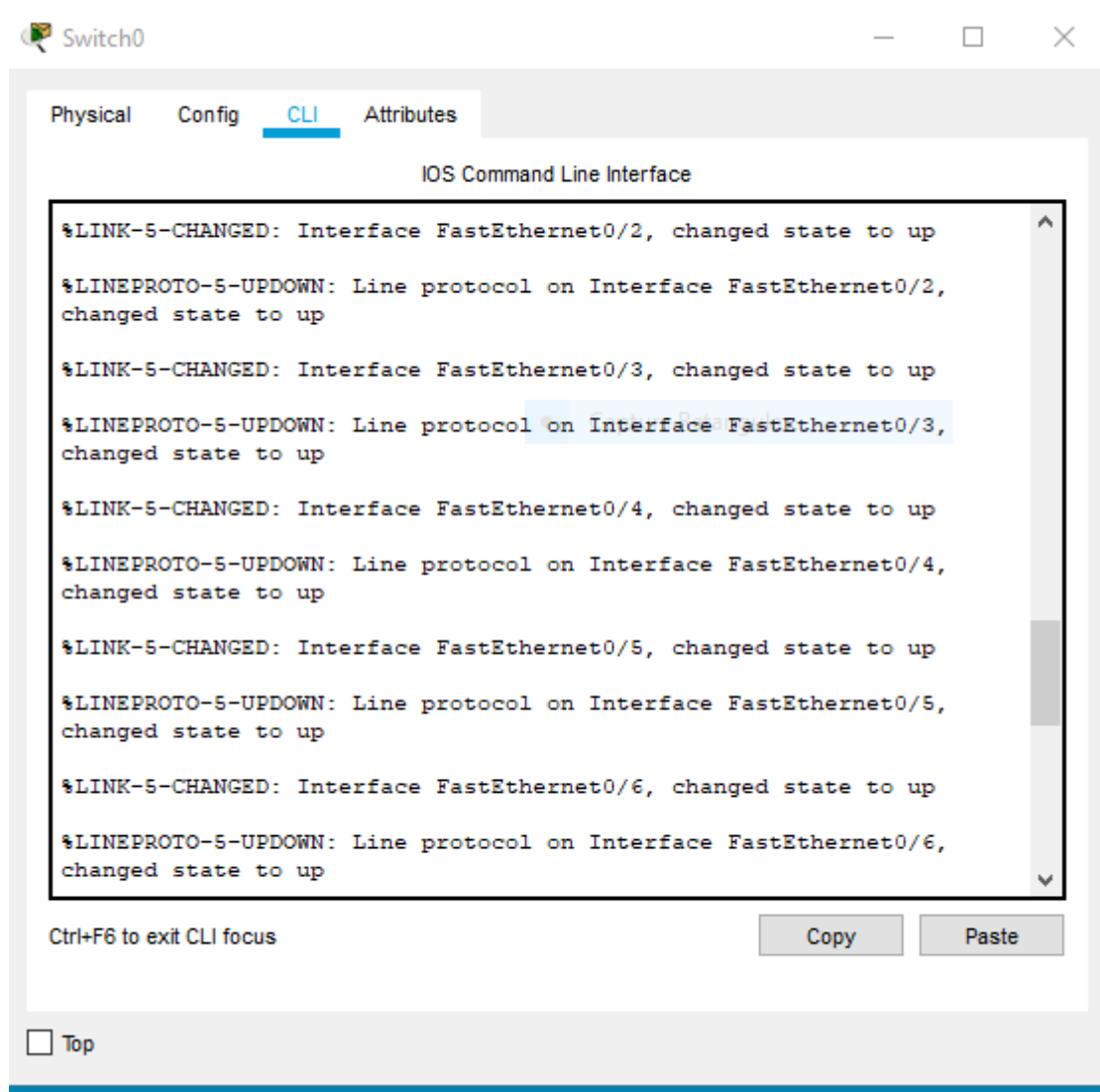
2022

Cássio de Albuquerque

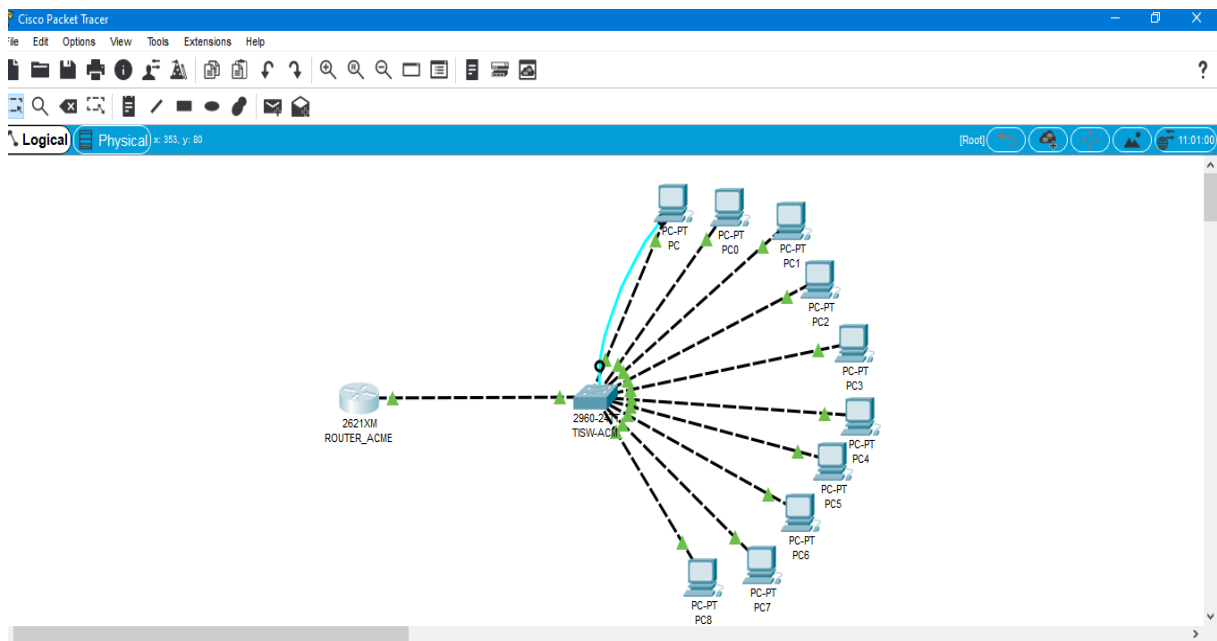
Configuração do SWITCH

Atividade Proposta

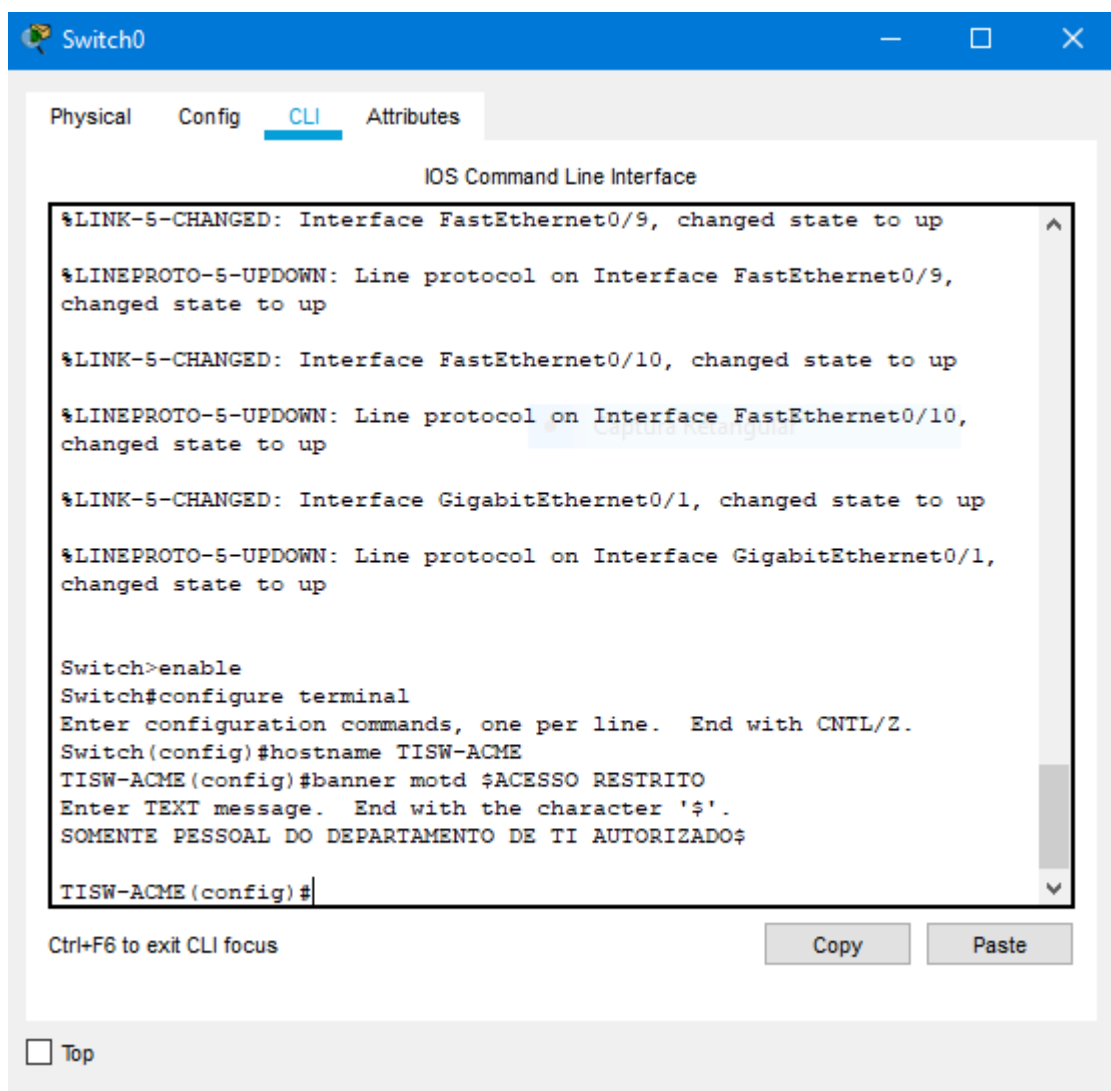
O dispositivo deverá ter o hostname alterado para a "TISW-ACME" auxiliando assim, a identificação do dispositivo na rede.



Topologia



O switch deverá ter uma mensagem de restrição (banner) informando que o acesso do dispositivo só poderá ser efetuado pelo deptº. TI.



The screenshot shows a web-based interface for a network switch named 'Switch0'. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The interface shows a series of status messages indicating that interfaces FastEthernet0/9, FastEthernet0/10, and GigabitEthernet0/1 have changed state to up. Below these messages, the user enters the command 'enable' to enter privileged EXEC mode. Then, the user enters 'configure terminal' to enter global configuration mode. The user sets the hostname to 'TISW-ACME' and then configures a MOTD banner with the text 'ACESSO RESTRITO' and 'SOMENTE PESSOAL DO DEPARTAMENTO DE TI AUTORIZADO\$'. The prompt changes to 'TISW-ACME(config)#'.

```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

%LINK-5-CHANGED: Interface FastEthernet0/9, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/9,
changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/10, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/10,
changed state to up
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1,
changed state to up

Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname TISW-ACME
TISW-ACME(config)#banner motd $ACESSO RESTRITO
Enter TEXT message. End with the character '$'.
SOMENTE PESSOAL DO DEPARTAMENTO DE TI AUTORIZADO$

TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

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Restringir o acesso via console e via acesso remoto do switch, utilizando senha criptografada.

```
TISW-ACME(config)#line console 0
TISW-ACME(config-line)#password senha
TISW-ACME(config-line)#login
TISW-ACME(config-line)#exit
TISW-ACME(config)#vty 0 1
^
% Invalid input detected at '^' marker.

TISW-ACME(config)#line vty 0 1
TISW-ACME(config-line)#password senha
TISW-ACME(config-line)#login
TISW-ACME(config-line)#exit
TISW-ACME(config)#service password-encryption
TISW-ACME(config)#exit
TISW-ACME#
%SYS-5-CONFIG_I: Configured from console by console

TISW-ACME#
```

Ctrl+F6 to exit CLI focus

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```
TISW-ACME(config)#interface vlan 1
TISW-ACME(config-if)#description interface de Gerenciamento ACME
TISW-ACME(config-if)#ip address 10.0.0.2 255.255.255.0
TISW-ACME(config-if)#no shutdown

TISW-ACME(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state
to up

TISW-ACME(config-if)#
```

Ctrl+F6 to exit CLI focus

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Habilitar o acesso remoto via SSH.

```
ACESSO RESTRITO
SOMENTE PESSOAL DO DEPARTAMENTO DE TI AUTORIZADO

User Access Verification

Password:

TISW-ACME>enable
TISW-ACME#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
TISW-ACME(config)#ip default-gateway 192.168.0.1
                                     ^
% Invalid input detected at '^' marker.

TISW-ACME(config)#ip default-gateway 192.168.0.1
TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

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Teste de Conectividade

```
TISW-ACME#ping 10.0.0.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/5 ms

TISW-ACME#
```

Ctrl+F6 to exit CLI focus

☐ Top

Configuração do Gateway

```
TISW-ACME#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
TISW-ACME(config)#ip default-gateway 192.168.0.1
TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

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Habilitando a Telnet

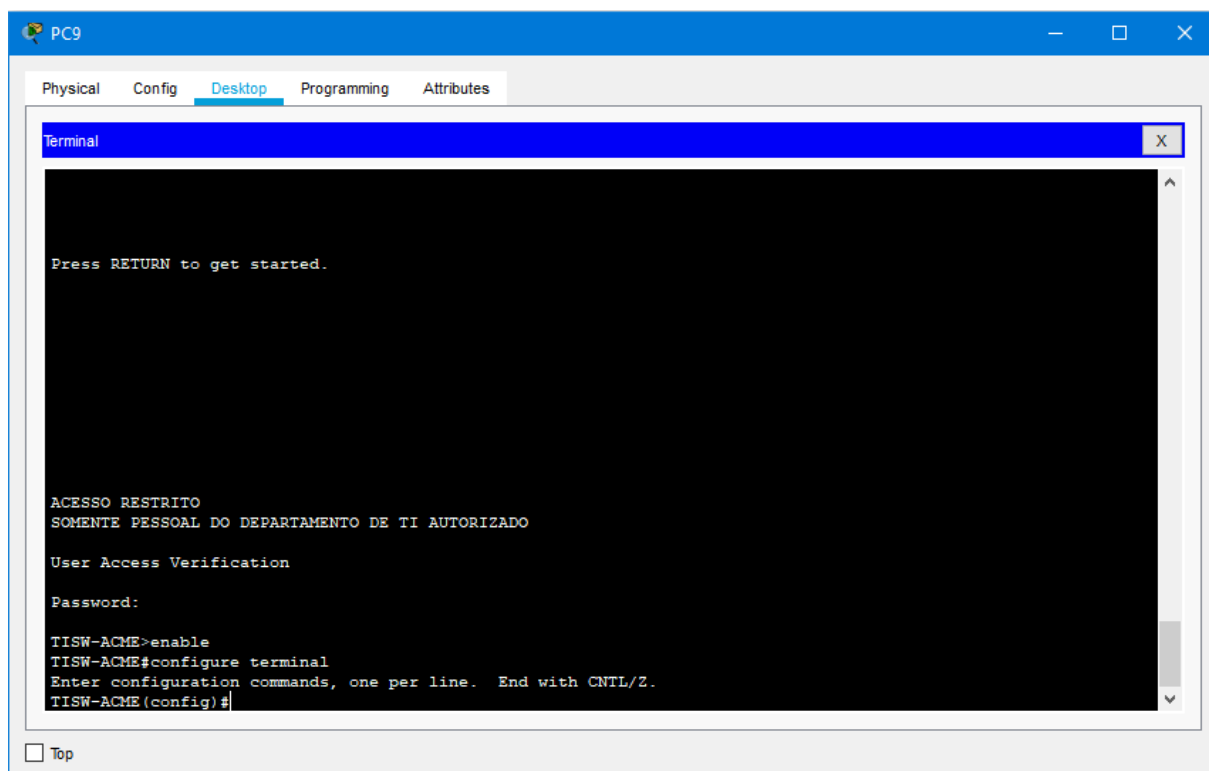
```
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/2/4 ms

TISW-ACME#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
TISW-ACME(config)#line vty 0 1
TISW-ACME(config-line)#transport input telnet
TISW-ACME(config-line)#
```

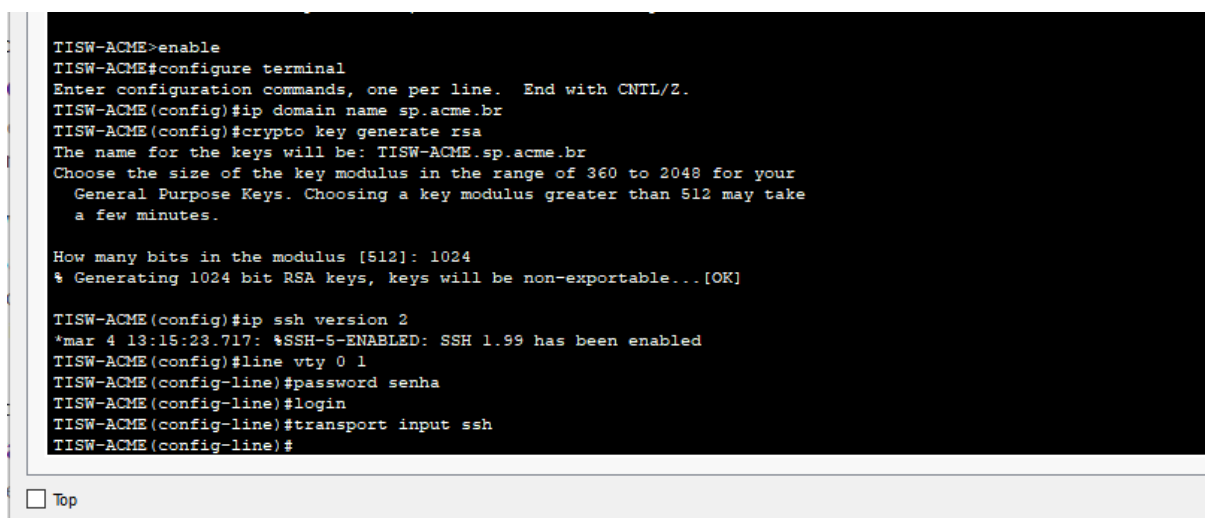
Ctrl+F6 to exit CLI focus

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Acessando o Switch pela telnet pelo PC

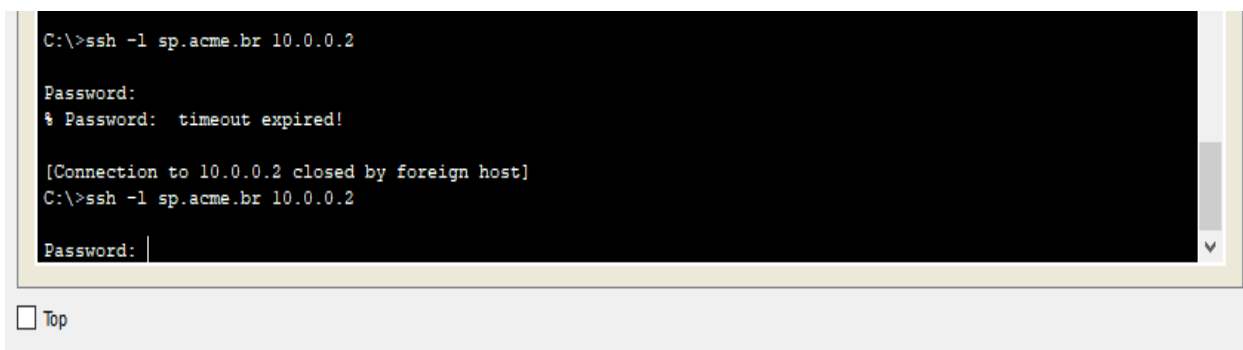


Habilitando acesso via SSH



Testar o acesso remoto via SSH.

Testando conexão via SSH

A screenshot of a Windows command prompt window with a black background and white text. The text shows a failed SSH connection attempt. The prompt is 'C:\>ssh -l sp.acme.br 10.0.0.2'. The user is prompted for a password, but the connection times out. The message '[Connection to 10.0.0.2 closed by foreign host]' is displayed. The user then re-enters the command, and the password prompt appears again. A 'Top' link is visible at the bottom left of the terminal window.

```
C:\>ssh -l sp.acme.br 10.0.0.2

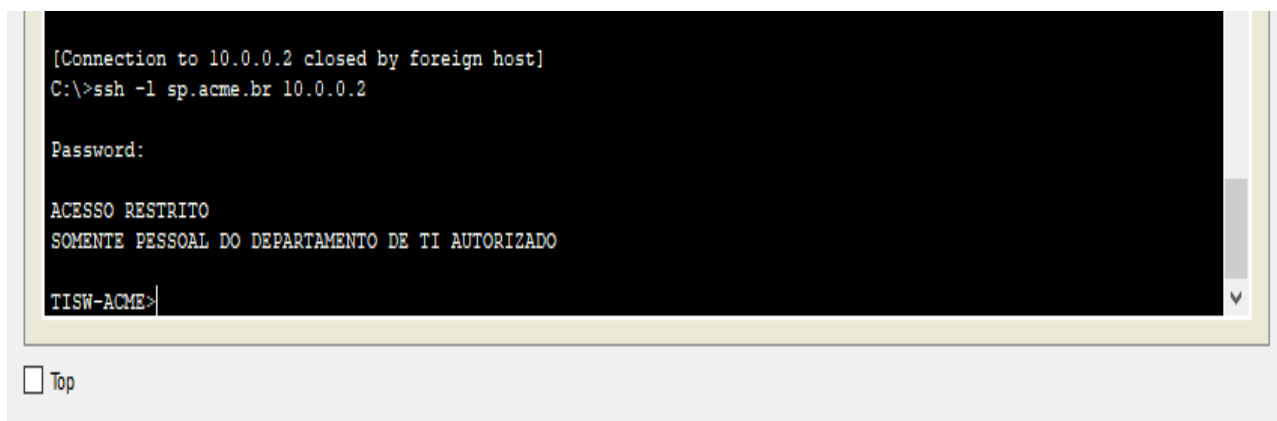
Password:
% Password: timeout expired!

[Connection to 10.0.0.2 closed by foreign host]
C:\>ssh -l sp.acme.br 10.0.0.2

Password:
```

☐ Top

Conexão via SSH efetuada com sucesso:

A screenshot of a Windows command prompt window with a black background and white text, showing a successful SSH connection. The text shows the connection attempt, the password prompt, and the successful login. The user is prompted for a password, and the connection is successful. The message '[Connection to 10.0.0.2 closed by foreign host]' is displayed. The user then re-enters the command, and the password prompt appears again. The user enters the password 'TISW-ACME' and the prompt changes to 'TISW-ACME>'. A 'Top' link is visible at the bottom left of the terminal window.

```
[Connection to 10.0.0.2 closed by foreign host]
C:\>ssh -l sp.acme.br 10.0.0.2

Password:

ACESSO RESTRITO
SOMENTE PESSOAL DO DEPARTAMENTO DE TI AUTORIZADO

TISW-ACME>
```

☐ Top

Telnet desabilitada

```
C:\>ssh -l sp.acme.br 10.0.0.2

Password:

ACESSO RESTRITO
SOMENTE PESSOAL DO DEPARTAMENTO DE TI AUTORIZADO

TISW-ACME>telnet 10.0.0.2
Trying 10.0.0.2 ...Open

[Connection to 10.0.0.2 closed by foreign host]
TISW-ACME>
```

☐ Top

Executar o comando para exibição das configurações.

```
TISW-ACME>enable
TISW-ACME#show running-config
Building configuration...

Current configuration : 1386 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname TISW-ACME
!
!
!
ip ssh version 2
ip domain-name sp.acme.br
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
--More--
```

Ctrl+F6 to exit CLI focus

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Configuração do Roteador

O dispositivo deverá ter o hostname alterado para a TISW-ACME auxiliando assim, a identificação do dispositivo na rede.

```
TISW-ACME#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
TISW-ACME(config)#hostname router_acme
router_acme(config)#hostname TISW-ACME
TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

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O router deverá ter uma mensagem de restrição (banner) informando que o acesso do dispositivo só poderá ser efetuado pelo deptº. TI.

```
TISW-ACME(config)#banner motd $ACesso RESTRITO
Enter TEXT message.  End with the character '$'.
SOMENTE PESSOAL DE TI AUTORIZADO$
TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

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Restringir o acesso via console e via acesso remoto do switch, utilizando senha criptografada.

```
TISW-ACME(config)#line console 0
TISW-ACME(config-line)#password senha
TISW-ACME(config-line)#login
TISW-ACME(config-line)#exit
TISW-ACME(config)#line vty 0 1
TISW-ACME(config-line)#password senha
TISW-ACME(config-line)#login
TISW-ACME(config-line)#exit
TISW-ACME(config)#enable secret senha
TISW-ACME(config)#service password-encryption
TISW-ACME(config)#exit
TISW-ACME#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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Porta Fast Ethernet 0/1 IP address 10.0.0.1 mask 255.255.255.0

```
TISW-ACME(config)#interface ethernet 0/1
%Invalid interface type and number
TISW-ACME(config)#interface fastEthernet 0/1
TISW-ACME(config-if)#ip address 10.0.0.1 255.255.255.0
TISW-ACME(config-if)#no shutdown

TISW-ACME(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

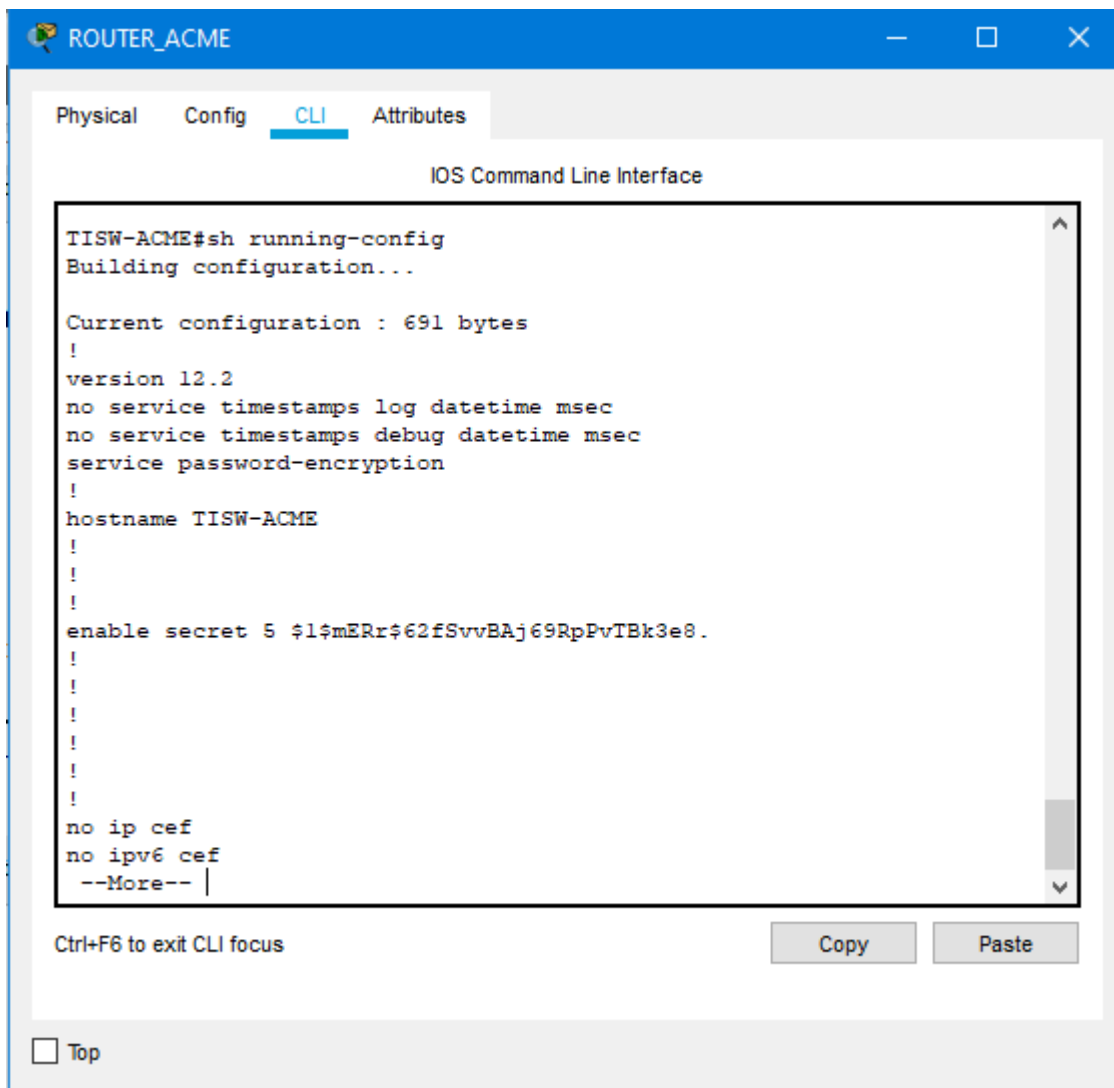
TISW-ACME(config-if)#
```

Ctrl+F6 to exit CLI focus

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Executar o comando para exibição das configurações



The screenshot shows a web-based CLI interface for a device named ROUTER_ACME. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The command 'show running-config' has been executed, showing the current configuration in a scrollable text area. The configuration includes version 12.2, service timestamps, password encryption, hostname TISW-ACME, and a secret. The interface also features a 'Copy' button, a 'Paste' button, and a 'Top' link.

```
TISW-ACME#sh running-config
Building configuration...

Current configuration : 691 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname TISW-ACME
!
!
!
enable secret 5 $1$mERr$62fSvvBAj69RpPvTBk3e8.
!
!
!
!
!
no ip cef
no ipv6 cef
--More-- |
```

Ctrl+F6 to exit CLI focus

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Habilitar o serviço DHCP.

```
TISW-ACME(config)#ip dhcp pool iplocal
TISW-ACME(dhcp-config)#network 192.168.0.1 192.168.0.12
192.168.0.0 / 192.168.0.12 is an invalid network.
TISW-ACME(dhcp-config)#networ 10.0.0.1 10.0.0.12
10.0.0.0 / 10.0.0.12 is an invalid network.
TISW-ACME(dhcp-config)#network 10.0.0.1 10.0.0.12
10.0.0.0 / 10.0.0.12 is an invalid network.
TISW-ACME(dhcp-config)#network 192.168.0.1 255.255.255.0
TISW-ACME(dhcp-config)#dns-server 8.8.8.8
TISW-ACME(dhcp-config)#default-router 10.0.0.1
TISW-ACME(dhcp-config)#exit
TISW-ACME(config)#
```

Ctrl+F6 to exit CLI focus

Copy

Paste

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