Отчет по практической работе 16

Землянский В. ИС223

Цель работы: настроить удаленное управление коммутаторами через telnet, используя цепочку устройств.

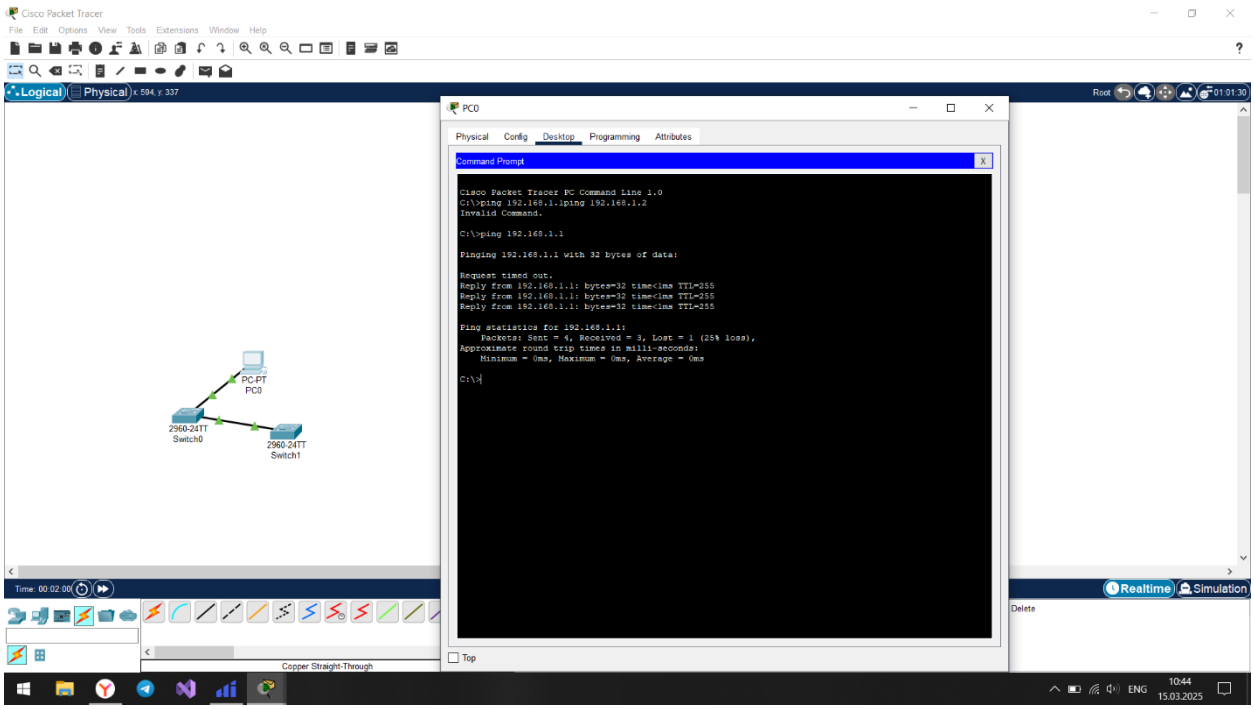
1. Ход выполнения работы

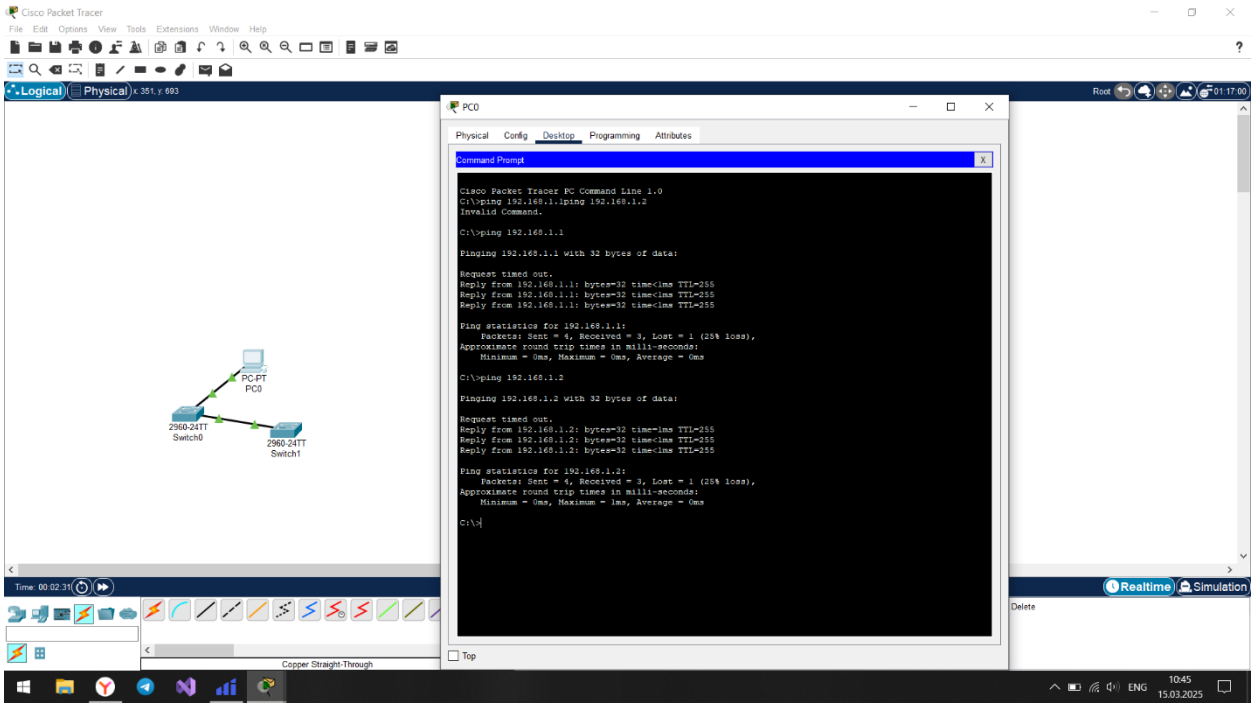
• Создал сеть из двух коммутаторов и одного пк.
• Назначил IP-адреса:

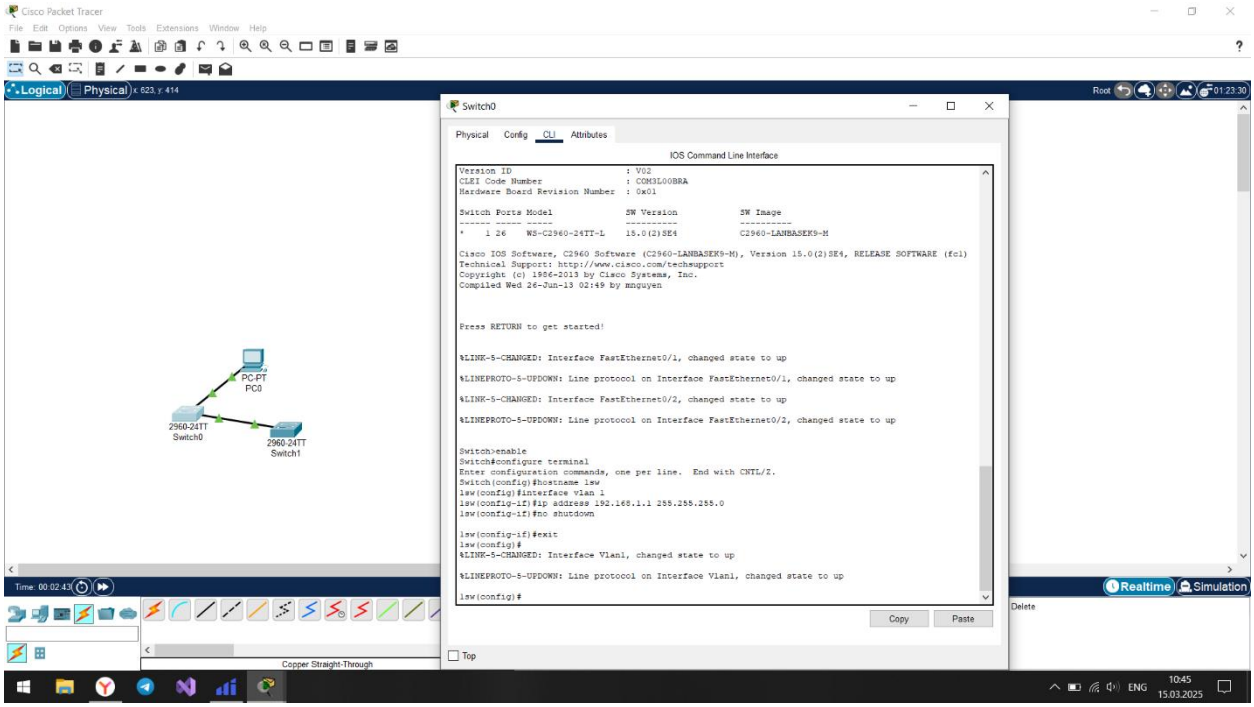
- pc0 – 192.168.1.10, шлюз 192.168.1.1.
- 1sw (switch0) – 192.168.1.1.
- 2sw (switch1) – 192.168.1.2.
  • Проверил доступность коммутаторов с пк с помощью ping.
  • Настроил telnet на обоих коммутаторах, задал пароли.
  • Подключился к 1sw с pc0 через команду telnet 192.168.1.1.
  • Из 1sw подключился к 2sw, выполнив команду telnet 192.168.1.2.
  • Проверил удаленное управление 2sw, используя команды show ip interface brief и show running-config.
  • Вернулся обратно через команду exit.

Результат: удаленный доступ через Telnet успешно настроен, удалось управлять 2sw через 1sw.

Скрины:




Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 351, y: 693
Root 01:17:00
PC0
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.1ping 192.168.1.2
Invalid Command.
C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.2: bytes=32 time=1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
PC-PT PC0
2960-24TT Switch0
2960-24TT Switch1
Time: 00:02:31
Realtime Simulation
Delete
Copper Straight-Through
Top
ENG 10:45 15.03.2025


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 623, y: 414
Root 01:23:30
Switch0
Physical Config CLI Attributes
IOS Command Line Interface
Version ID : V02
CLEI Code Number : COM3L00BRA
Hardware Board Revision Number : 0x01
Switch Ports Model SW Version SW Image
------ ----- ----- ---------- ----------
* 1 26 WS-C2960-24TT-L 15.0(2)SE4 C2960-LANBASEK9-M
Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
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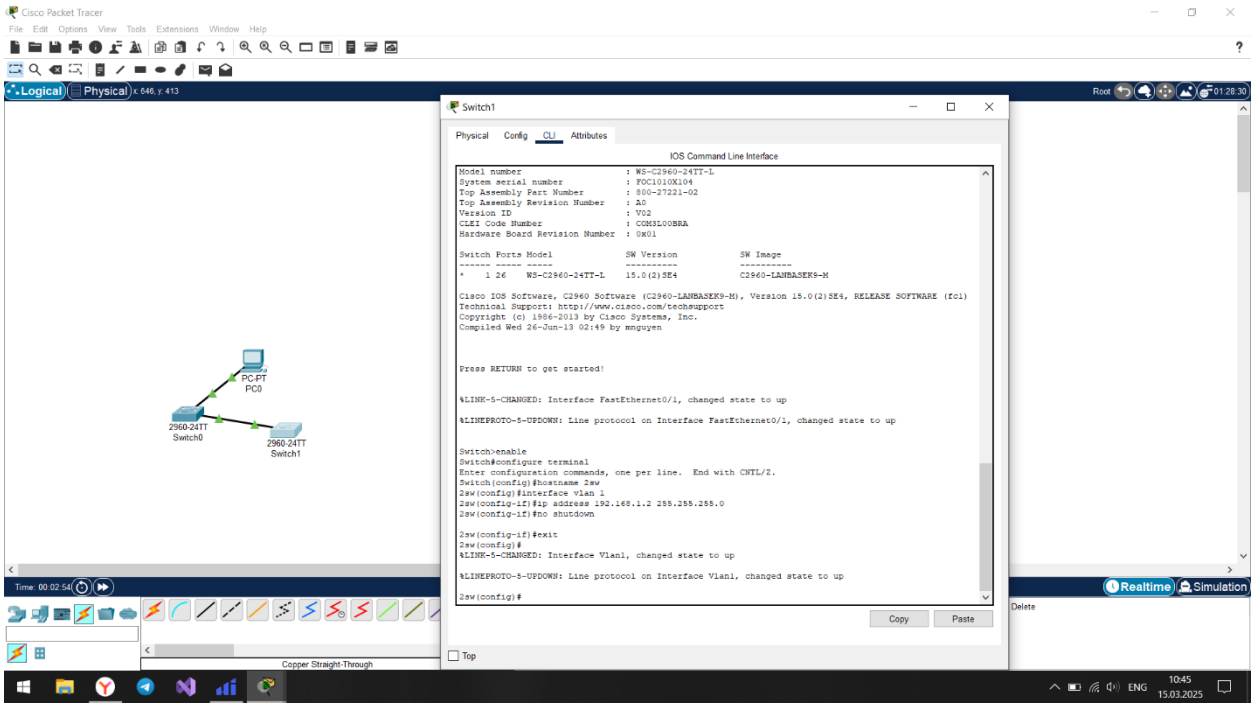
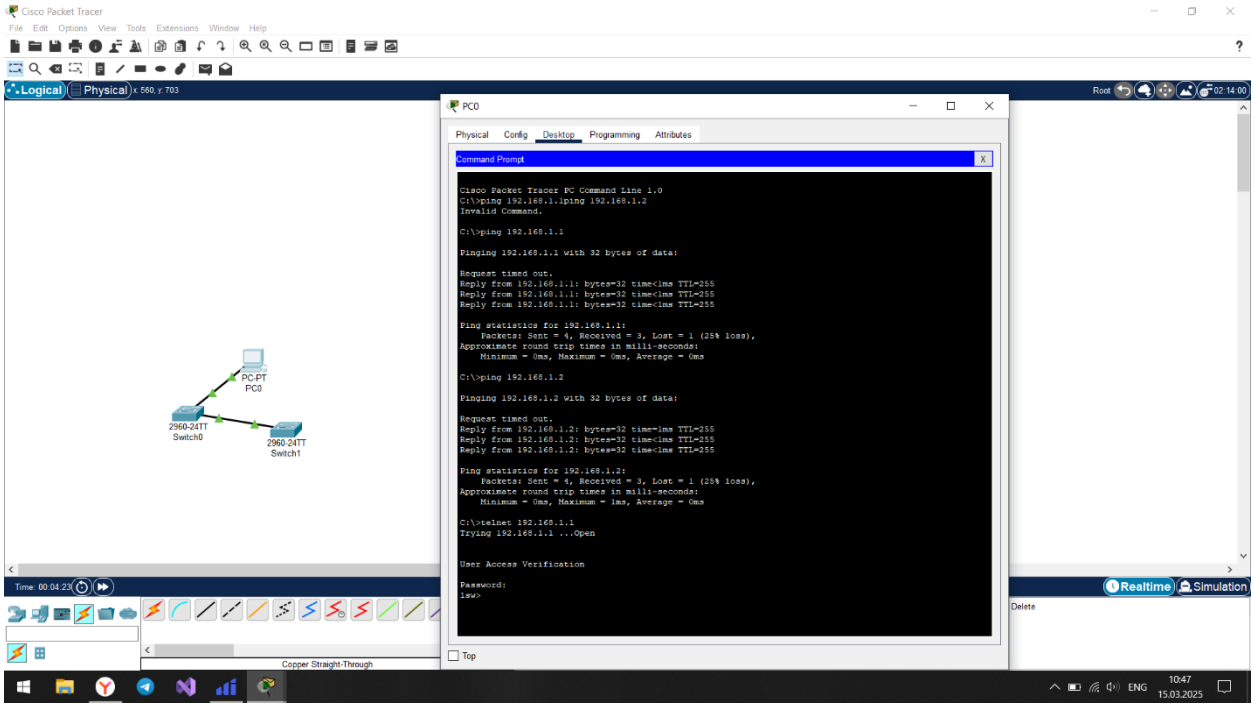
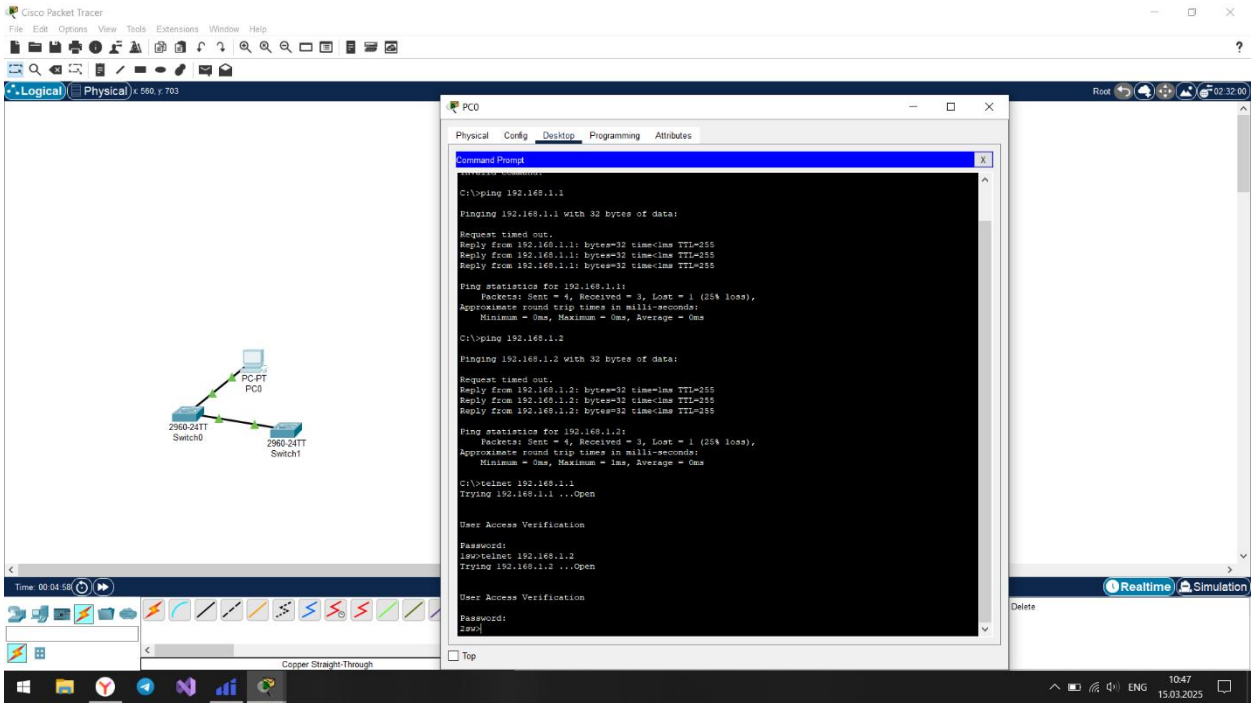
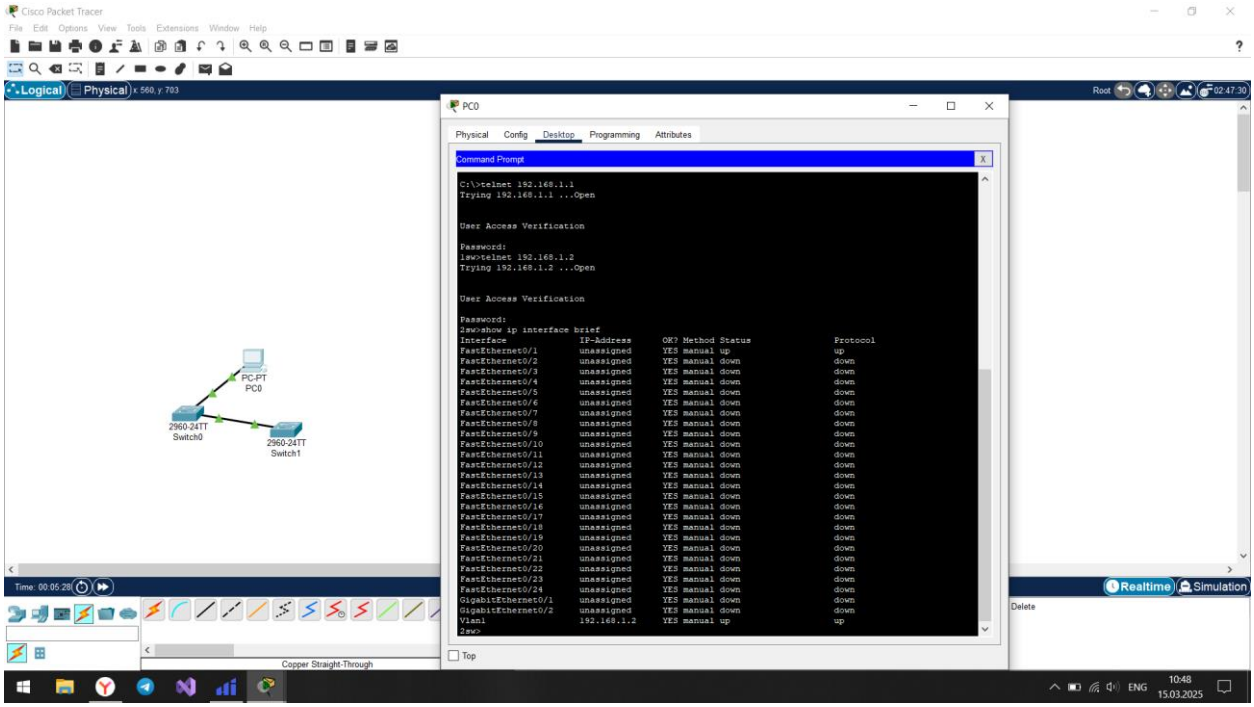
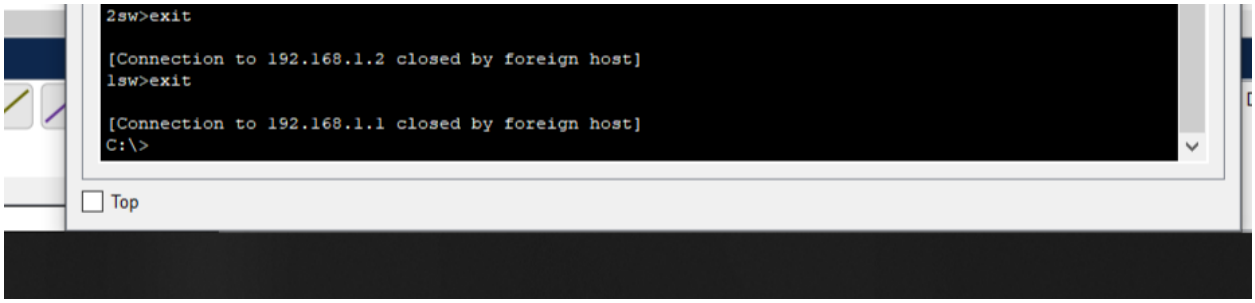
Compiled Wed 26-Jun-13 02:49 by mnguyen
Press RETURN to get started!
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname lsw
lsw(config)#interface vlan 1
lsw(config-if)#ip address 192.168.1.1 255.255.255.0
lsw(config-if)#no shutdown
lsw(config-if)#exit
lsw(config)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
lsw(config)#
Copy Paste
PC-PT PC0
2960-24TT Switch0
2960-24TT Switch1
Time: 00:02:43
Realtime Simulation
Delete
Copper Straight-Through
Top
ENG 10:45 15.03.2025


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 646, y: 413
Root 01:28:30
Switch1
Physical Config CLI Attributes
IOS Command Line Interface
Model number : WS-C2960-24TT-L
System serial number : FOC1010X104
Top Assembly Part Number : 800-27221-02
Top Assembly Revision Number : A0
Version ID : V02
CLEI Code Number : COM3L00BRA
Hardware Board Revision Number : 0x01
Switch Ports Model SW Version SW Image
* 1 26 WS-C2960-24TT-L 15.0(2)SE4 C2960-LANBASEK9-M
Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 26-Jun-13 02:49 by mnguyen
Press RETURN to get started!
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname 2sw
2sw(config)#interface vlan 1
2sw(config-if)#ip address 192.168.1.2 255.255.255.0
2sw(config-if)#no shutdown
2sw(config-if)#exit
2sw(config)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
2sw(config)#
Copy Paste
Top
PC-PT PC0
2960-24TT Switch0
2960-24TT Switch1
Time: 00:02:54
Realtime Simulation
Delete
Copper Straight-Through
ENG 10:45 15.03.2025


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 560, y: 703
Root 02:14:00
PC0
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.1ping 192.168.1.2
Invalid Command.
C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.2: bytes=32 time=1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>telnet 192.168.1.1
Trying 192.168.1.1 ...Open
User Access Verification
Password:
1sw>
Top
PC-PT PC0
2960-24TT Switch0
2960-24TT Switch1
Time: 00:04:23
Realtime Simulation
Delete
Copper Straight-Through
ENG 10:47 15.03.2025


Cisco Packet Tracer
PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.2: bytes=32 time=1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>telnet 192.168.1.1
Trying 192.168.1.1 ...Open
User Access Verification
Password:
lsw>telnet 192.168.1.2
Trying 192.168.1.2 ...Open
User Access Verification
Password:
2sw>
PC-PT
PC0
2960-24TT
Switch0
2960-24TT
Switch1
Logical
Physical
Realtime
Simulation
Copper Straight-Through
Top


Cisco Packet Tracer
PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>telnet 192.168.1.1
Trying 192.168.1.1 ...Open
User Access Verification
Password:
lsw>telnet 192.168.1.2
Trying 192.168.1.2 ...Open
User Access Verification
Password:
2sw>show ip interface brief
Interface IP-Address OK? Method Status Protocol
FastEthernet0/1 unassigned YES manual up up
FastEthernet0/2 unassigned YES manual down down
FastEthernet0/3 unassigned YES manual down down
FastEthernet0/4 unassigned YES manual down down
FastEthernet0/5 unassigned YES manual down down
FastEthernet0/6 unassigned YES manual down down
FastEthernet0/7 unassigned YES manual down down
FastEthernet0/8 unassigned YES manual down down
FastEthernet0/9 unassigned YES manual down down
FastEthernet0/10 unassigned YES manual down down
FastEthernet0/11 unassigned YES manual down down
FastEthernet0/12 unassigned YES manual down down
FastEthernet0/13 unassigned YES manual down down
FastEthernet0/14 unassigned YES manual down down
FastEthernet0/15 unassigned YES manual down down
FastEthernet0/16 unassigned YES manual down down
FastEthernet0/17 unassigned YES manual down down
FastEthernet0/18 unassigned YES manual down down
FastEthernet0/19 unassigned YES manual down down
FastEthernet0/20 unassigned YES manual down down
FastEthernet0/21 unassigned YES manual down down
FastEthernet0/22 unassigned YES manual down down
FastEthernet0/23 unassigned YES manual down down
FastEthernet0/24 unassigned YES manual down down
GigabitEthernet0/1 unassigned YES manual down down
GigabitEthernet0/2 unassigned YES manual down down
Vlan1 192.168.1.2 YES manual up up
2sw>
PC-PT
PC0
2960-24TT
Switch0
2960-24TT
Switch1
Logical
Physical
Realtime
Simulation
Copper Straight-Through
Top


2sw>exit
[Connection to 192.168.1.2 closed by foreign host]
lsw>exit
[Connection to 192.168.1.1 closed by foreign host]
C:\>
Top