

Практическая работа 4 – Работа с терминалом (CLI)

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1.Открываем консоль

2.Пишем в консоль “?” и смотрим что выведется

```
Switch>?  
Exec commands:  
  connect      Open a terminal connection  
  disable      Turn off privileged commands  
  disconnect    Disconnect an existing network connection  
  enable        Turn on privileged commands  
  exit          Exit from the EXEC  
  logout        Exit from the EXEC  
  ping          Send echo messages  
  resume        Resume an active network connection  
  show          Show running system information  
  telnet        Open a telnet connection  
  terminal      Set terminal line parameters  
  traceroute    Trace route to destination
```

Команда “?” показывает список доступных команд, которые можно использовать.

3. Пишем в консоль “show ?” и смотрим

```
Switch>show ?  
  arp           Arp table  
  cdp           CDP information  
  clock         Display the system clock  
  crypto        Encryption module  
  dtp           DTP information  
  etherchannel  EtherChannel information  
  flash:        display information about flash: file system  
  history       Display the session command history  
  interfaces    Interface status and configuration  
  ip            IP information  
  lldp          LLDP information  
  mac           MAC configuration  
  mac-address-table MAC forwarding table  
  mls           Show MultiLayer Switching information  
  privilege     Show current privilege level  
  sessions      Information about Telnet connections  
  ssh           Status of SSH server connections  
  tcp           Status of TCP connections  
  terminal      Display terminal configuration parameters  
  users         Display information about terminal lines  
  version       System hardware and software status  
  vlan          VTP VLAN status  
  vtp           VTP information
```

Данная команда выведет список доступных команд, которые можно использовать после ключевого слова “show”. Сама команда show показывает текущую информацию о запущенной системе.

4. Пишем “enable”

```
Switch>enable  
Switch#
```

Она предоставляет доступ к некоторым командам.

5. Вводим “conf t”

```
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#?
Configure commands:
  access-list      Add an access list entry
  banner           Define a login banner
  boot             Boot Commands
  cdp              Global CDP configuration subcommands
  clock            Configure time-of-day clock
  crypto           Encryption module
  default          Set a command to its defaults
  do               To run exec commands in config mode
  enable           Modify enable password parameters
  end             Exit from configure mode
  exit            Exit from configure mode
  hostname         Set system's network name
  interface        Select an interface to configure
  ip              Global IP configuration subcommands
  line            Configure a terminal line
  lldp            Global LLDP configuration subcommands
  logging          Modify message logging facilities
  mac             MAC configuration
  mac-address-table Configure the MAC address table
  monitor          SPAN information and configuration
  no              Negate a command or set its defaults
--More--
```

Данная команда позволяет использовать команды конфигурации, с помощью которых можно менять конфигурацию коммутатора. (мы ввели ?, чтобы увидеть их список)

6. Введем пароль через команду “enable password *”

```
Switch(config)#enable password *
```

Теперь выйдем и проверим работает ли пароль

```
Switch#exit

Switch con0 is now available

Press RETURN to get started.

Switch>enable
Password:
Switch#
```

Как видим теперь чтобы провести команду enable нужно ввести пароль.

7. Вводим “enable secret *”

```
Switch(config)#enable secret 52
Switch(config)#exir
      ^
% Invalid input detected at '^' marker.

Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
exit
```

Switch con0 is now available

Press RETURN to get started.

```
Switch>enable
Password:
Switch#
```

Secret это типа код от домофона, который есть но его не должны знать.

8. Вводим “write memory”

```
Switch#write memory
Building configuration...
[OK]
```

Данная команда сохраняет текущие настройки конфигурации.

9. Введем “reload”

```

Switch#reload
Proceed with reload? [confirm]
C2950 Boot Loader (C2950-HBOOT-M) Version 12.1(11r)EA1, RELEASE SOFTWARE (fc1)
Compiled Mon 22-Jul-02 18:57 by miwang
Cisco WS-C2950-24 (RC32300) processor (revision C0) with 21039K bytes of memory.
2950-24 starting...
Base ethernet MAC Address: 00D0.BA61.99BE
Xmodem file system is available.
Initializing Flash...
flashfs[0]: 2 files, 0 directories
flashfs[0]: 0 orphaned files, 0 orphaned directories
flashfs[0]: Total bytes: 64016384
flashfs[0]: Bytes used: 3059133
flashfs[0]: Bytes available: 60957251
flashfs[0]: flashfs fsck took 1 seconds.
...done Initializing Flash.

Boot Sector Filesystem (bs:) installed, fsid: 3
Parameter Block Filesystem (pb:) installed, fsid: 4

Loading "flash:/c2950-i6q4l2-mz.121-22.EA4.bin"...
##### [OK]
                Restricted Rights Legend

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(c) of the Commercial Computer Software - Restricted
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(c) (1) (ii) of the Rights in Technical Data and Computer
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                cisco Systems, Inc.
                170 West Tasman Drive
                San Jose, California 95134-1706

Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 18-May-05 22:31 by jharirba

Cisco WS-C2950-24 (RC32300) processor (revision C0) with 21039K bytes of memory.
Processor board ID FHK0610Z0WC
Running Standard Image
24 FastEthernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.
Base ethernet MAC Address: 00D0.BA61.99BE
Motherboard assembly number: 73-5781-09
Power supply part number: 34-0965-01
Motherboard serial number: FOC061004SZ
Power supply serial number: DAB0609127D
Model revision number: C0
Motherboard revision number: A0
Model number: WS-C2950-24
System serial number: FHK0610Z0WC

Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4, RELEASE SOFTWARE (fc1)

```

Данная команда приводит к перезагрузке коммутатора.

Доп задание:

Введем “show flash”

```
Switch>show flash
Directory of flash:/

   1  -rw-     3058048      <no date>  c2950-i6q4l2-mz.121-22.EA4.bin
   2  -rw-       1085      <no date>  config.text

64016384 bytes total (60957251 bytes free)
Switch>
```

Она выдает информацию о флеш. памяти

И напишем “show version”

```
Switch>show version
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4, RELEASE SOFTWARE(fcl)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 18-May-05 22:31 by jharirba
Image text-base: 0x80010000, data-base: 0x80562000

ROM: Bootstrap program is is C2950 boot loader
Switch uptime is 12 minutes, 44 seconds
System returned to ROM by power-on

Cisco WS-C2950-24 (RC32300) processor (revision C0) with 21039K bytes of memory.
Processor board ID FHK0610Z0WC
Last reset from system-reset
Running Standard Image
24 FastEthernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.
Base ethernet MAC Address: 00D0.BA61.99BE
Motherboard assembly number: 73-5781-09
Power supply part number: 34-0965-01
Motherboard serial number: FOC061004SZ
Power supply serial number: DAB0609127D
Model revision number: C0
Motherboard revision number: A0
Model number: WS-C2950-24
--More-- |
```

Она показывает подробную информацию о версии программного обеспечения и аппаратном обеспечении коммутатора.