**实验二 交换机的基本配置与管理**

**一、实验目标**

 掌握交换机基本信息的配置与管理

**二、技术原理**

 交换机的管理方式基本分为两种：带内管理和带外管理。

 通过交换机的Console端口管理交换机属于带外管理：这种管理方式不占用交换机的网络端口，第一次配置交换机必须利用Console端口进行配置。

 通过远程Telnet、拨号等方式属于带内管理。

**三、交换机的命令行操作模式**

 主要包括：

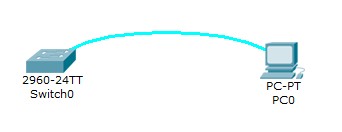
 用户模式           Switch>

 特权模式           Switch#

 全局配置模式      Switch(config)#

 端口模式           Switch(config-if)#

**四、实验步骤**

 1、实验拓扑

 2、交换机基本配置命令

  a. 进入特权模式

      Switch>enable                                                  //en=enable

      Switch#

  b. 进入全局配置模式

      Switch#configure terminal                                  //conf t=configure terminal

      Enter configuration commands, one per line. End with CNTL/Z.

  c. 进入交换机端口视图模式

      Switch(config)#interface fastEthernet 0/1            //int f0/1=interface fastEthernet 0/1

      Switch(config-if)#

  d. 配置交换机端口速度

      Switch(config-if)#speed ?

10 Force 10 Mbps operation

100 Force 100 Mbps operation

auto Enable AUTO speed configuration

      Switch(config-if)#speed 100

  e. 配置交换机端口双工模式

      Switch(config-if)#duplex ?

      Switch(config-if)#duplex full

  f. 退回到上一级模式

      Switch(config-if)#exit

      Switch(config)#

  g. 直接退回到特权模式

      Switch(config-if)#end

      Switch#

      %SYS-5-CONFIG\_I: Configured from console by console

      Switch#

  h. 查看交换机版本信息

      Switch#show version

Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fc1)

Copyright (c) 1986-2005 by Cisco Systems, Inc.

Compiled Wed 12-Oct-05 22:05 by pt\_team

ROM: C2960 Boot Loader (C2960-HBOOT-M) Version 12.2(25r)FX, RELEASE SOFTWARE (fc4)

System returned to ROM by power-on

Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.

24 FastEthernet/IEEE 802.3 interface(s)

2 Gigabit Ethernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 0040.0B69.8831

Motherboard assembly number : 73-9832-06

Power supply part number : 341-0097-02

Motherboard serial number : FOC103248MJ

Power supply serial number : DCA102133JA

Model revision number : B0

Motherboard revision number : C0

Model number : WS-C2960-24TT

System serial number : FOC1033Z1EY

--More--

...

Configuration register is 0xF

  i. 查看当前生效的配置信息

 Switch#show running-config

Building configuration...

Current configuration : 1033 bytes

!

version 12.2

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname Switch

!

!

!

interface FastEthernet0/1

duplex full

speed 100

!

interface FastEthernet0/2

!

interface FastEthernet0/3

!

interface FastEthernet0/4

!

interface FastEthernet0/5

--More--

...

!

!

end

  j. 帮助信息

     ① Switch#?

Exec commands:

<1-99> Session number to resume

clear Reset functions

clock Manage the system clock

configure Enter configuration mode

connect Open a terminal connection

copy Copy from one file to another

debug Debugging functions (see also 'undebug')

delete Delete a file

dir List files on a filesystem

disable Turn off privileged commands

disconnect Disconnect an existing network connection

enable Turn on privileged commands

erase Erase a filesystem

exit Exit from the EXEC

logout Exit from the EXEC

more Display the contents of a file

no Disable debugging informations

ping Send echo messages

reload Halt and perform a cold restart

resume Resume an active network connection

setup Run the SETUP command facility

--More--

     ② Switch#co?

configure connect copy

     ③ Switch#copy ?

flash: Copy from flash: file system

ftp: Copy from ftp: file system

running-config Copy from current system configuration

startup-config Copy from startup configuration

tftp: Copy from tftp: file system