

SPENGERGASSE



ausbildung mit zukunft

Betriebssystem IOS

DI (FH) Levent Öztürk

IOS Modes



- Internetworking Operating System
- 4 verschiedene Modus
 - User Exec Mode >
 - Enable , PW → PEM
 - Disable → UEM
 - Privileged Exec Mode #
 - Global Configuration Mode (config)#
 - Other Configuration Mode (config-mode)#



- Command
 - Show ip protocols
 - Show running-config
 - Traceroute <ip address>
 - Cl? -> clear c lock
 - Clock? Set set the...
 - Clock set ? Hh:mm:ss dd mm jj (current time)
 - TAB completes the command

Command examples



- Short Cut
 - Ctrl R redisplay a line
 - Ctrl Z Exit config-mode
 - Ctrl shift 6 interrupt process
 - Ctrl C abort the Command, exit Config Mode
 - Ctrl D Back Space

Command examples



- Short Cut
 - Ctrl K erase cursor to EOL
 - ESC D erase cursor to EOW
 - Ctrl U erase BOL to cursor
 - Ctrl W erase word left from Cursor
 - ESC B move curser one word left
 - Ctrl E move curser to EOL
 - Ctrl P recalls CL in the history buffer

Command examples



- Show Commands
 - Show mac
 - Show interface
 - Show version RAM
 - Sh process CPU
 - Sh protocols
 - Sh running-config
 - Sh start

Command examples



- Show Commands
 - Sh memory
 - Sh stacs
 - Sh buffers
 - Sh flash
 - Sh interface serial 0/1 (Sh int s0/1)
 - Sh mac-address-table
 - Sh ip intinterface brief (Sh ip int brief)

Command examples



- Router interfaces
 - Interface type port
 - Port slot/port, slot/subslot/port
 - Shutdown
 - No shutdown
- Connection
 - Line mode
 - Virtual or physical console
 - Con, vty, aux

Command examples



- Example
 - > Enable
 - # configure terminal
 - (config)# interface serial 0/0/0
 - (config-if)# clock rate 2000000
 - (config-if)# Ip address <IP-Address> <Netmask>
 - (config-if)# no shutdown
 - (config-if)# exit
 - (config)#



- Security
 - HQ>enable
 - HQ#conf terminal
 - Enter configuration commands, one per line. End with CNTL/Z.
 - HQ(config)#hostname R2
 - R2(config)#enable password cisco
 - R2(config)#line console 0
 - R2(config-line)#password class
 - R2(config-line)#login
 - R2(config-line)#exit



- Security
 - R2(config)#line vty 0 4
 - R2(config-line)#password cisco
 - R2(config-line)#login
 - R2(config-line)#exit
 - R2(config)#service password-encryption
 - R2# show run (passwords encrypted)



- Password recovery
 - If you cannot read the Password in the configuration register then
 - > sh version
 - Configuration register is 0x2102
 - Router turn off and on
 - Type break in the first 60 Sec. ^C
 - rommon > confreg 0x2142
 - rommon > reset



- Password recovery
 - Type n to the question “...configuration dialog...”
 - Router> enable
 - Router (config)#copy start run
 - Router (config)# sh run
 - Set the secret password
 - (config)# enable secret <password>
 - Router(config)#config-register 0x2102
 - Router(config)#exit
 - Router# copy run start



- Router
 - `ip ospf message-digest-key 1 md5 cisco`
 - to specify a key that is used to authenticate routing updates
 -