```
int=interfaces \ / \ sho=show \ / \ hos=hostname \ / \ sw=switch \ / \ sho=shoutdown \ / \ vl=vlan \ / \ sub=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ port-sec=subnet \ maszk \ / \ add=address \ / \ r=range \ / \ swp=switchport \ / \ swp=s
port\text{-}security \ / \ \_. \ \_. \ \_= ip \ cim \ / \ wsub=wildcard \ maszk \ / \ st = sartupconfig \ / \ r= runing\text{-}config \ / \ conf \ t = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = eigrp
= password / sec = secret
Alapok:
no ip domamin-lookup
do terminal-history size (szám)
line console 0
         exece timeout (szám) (szám)
         logging synchronous
Banner motd "szöveg"
hos "név"
Mec címek lekérdezése:
         sw: show int vlan (szám)
         router: show int (szám/tulajdonság)
description "leírás"
sh sdm prefer ### swich data maneger statistic
service password-encryption
service password min-lenght
sho ipv6/ip interfaces brief
login block-for (block idő) attempts (próbálkozás mennyisége) within (gépelés sebessége sec)
erase startup-config ### reset
int (id)
bandwidth (szám kb/s)
copy (forrás) (cél)
SW:
Ip cím adás:
         int (szám/tulajdonság)
         no swhitchport
         ip add _._.. _ sub
         no sho
 Vlan beállitás:
vl (id)
         name "név"
int vl (id)
         ip add _._._ (sub)
int r (int id - id)
         swp mod access/trunk
         swp access vl (id)
         swp trunk allowe vl (id)
         swp t native vl (id) ###alapértelmezet / default út
         swp nonegotiate
         swp port-sec mac-address sticky
         swp port-sec maximum (szám 1-132)
         swp port-sec violation protect/restrict/shutdown ### eldobja a többleteket/növeli a max-ot/lekapcsolja a portot
sh port-sec add ###forrás mac-címeket jelenít meg
sh int trunk ###a trunk vonalak információk
ip default-gateway _._._._
sh mac-address-table
Spanning-tree:
int (id)
         spanning-tree cost (szám) ### port path cost
         no spanning-tree cost ### vissza állítás
         spanning-tree vlan (id) root/priority primary/secopndory
int (id)
         spanning-tree prortfast
         spanning-tree bpduguard enable/disable
Ether channel:
int r (id)
channel-group (id) mode active/passive ### lacp
channel-group (id) mode desirable/auto ### pagp
int port-channel (id)
sw mode trunk
sw trunk allowed vl (id-k)
sh etherchannel summary
SSH:
ip domain-name "név"
```

crypto key generate rsa

```
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        port\text{-}security \ / \ \_. \ \_. \ \_= ip \ cim \ / \ wsub=wildcard \ maszk \ / \ st = sartupconfig \ / \ r= runing\text{-}config \ / \ conf \ t = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = eigrp
        = password / sec = secret
        (szám)
        username "név" secret/password "jelszó"
        username "név" privilege (szám 0-15) secret/password "jelszó"
        ip ssh version 2
        line vty 0 15
                  login local
                  transport input ssh
        sh ip ssh ### ssh beállítás iformációk
Router:
        Routing:
        ip route _._.. _ sub (reouter _._. _ vagy int (id))
        ipv6 unicast-routing
        ipv6 route _._._ /prefix
        Default route:
        ip route 0.0.0.0 0.0.0.0 int (id)
        ipv6 route ::/0 int (id)
        OSPF:
        ipv4:
        router ospf (id)
                  router-id _._.. _
                  passive-int (int id)
                  network _._._ (net id) _._. (wild sub) area (id)
                  default-information orignal ### csak a határ reouter-nél, az def-route-ot hírdeti tovább
                  auto-cost referent-bandwith (szám) ### ospf protokol sáv szélesége
                  redistribute static subnets ### osztály nélkülien hirdet
                  area (id) authentication messege-digest
        ipv6:
        int (id)
                  ipv6 ospf (id) area (szám)
                  ipv6 eigrp (id)
        int (id)
                  ip/ipv6 ospf priority (szám 0-255)
                  ip/ipv6 ospf hello-inteval (szám sec)
                  ip/ipv6 ospf death-interval (szám sec hello*4)
                  ip ospf message-digest-key (id) md5 "password"
        clear ospf process
        sh ip ospf int (id) |include timer
        sh ip protocols
        DHCP:
        ipv4:
        ip dhcp excluded-address _._._ (alsó) _._. (felső)
        ip dhcp pool "név"
        default-router _._. _ (az adot hálozat nak a router-ének)
        dns-server _._. _ (ha van)
        domain-name "név"
        network _._. _ sub
        ipv6:
         állapot mentes:
             ipv6 dhcp pool "név"
                  dns-server _._._.
                  domain-name "név"
             int (id)
                  ipv6 dhcp server "dhcp pool név"
                  ipv6 nd other-config-flag
         állapot taró:
             ipv6 dhcp pool "név"
                  dns-server _._._.
                  domain-name "név"
             int (id)
                  ipv6 dhcp server "dhcp pool név"
                  ipv6 nd managed-config-flag
```

debug ip/ipv6 paccket sh ip/ipv6 dhcp pool "név"

```
int=interfaces / sho=show / hos=hostname / sw=switch / sho=shoutdown / vl=vlan / sub=subnet maszk / add=address / r=range / swp=switchport / port-sec=
port\text{-}security \ / \_.\_.\_ = ip \ cim \ / \ wsub = wildcard \ maszk \ / \ st = sartupconfig \ / \ rer \ runing\text{-}config \ / \ conf \ t = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ enable \ 
= password / sec = secret
sh ip/ipv6 dhcp bindling
sh ip/ipv6 dhcp conflict
NAT:
dinamikus:
   ip nat pool "név" _ . . _ . _ (start) _ . _ . _ (end) netmask _ . _ . _ . _ (sub/prefix)
   access-list (szám) permit/deny _._. (ip) wsub
   ip nat inside source list (szám) pool "név" overload
   int (id)
   ip nat inside/outside
<u>static:</u>
   ip nat inside source static _._._ (inside local) _._. (inside global)
   int int (id)
   ip add _._.. _ sub
   ip nat inside/outside
   ip nat inside source static tcp/utp _ . _ . _ (port szám) _ . _ . _ (port szám gloál)
   clear ip nat translation
   debug ip nat
   sh ip nat translations/statistics
ACL:
namál:
      access-list (szám: 1-99) permit/deny _._._ wsub
      access-list (szám: 100-199) permit/deny (porotocol) _ . _ . _ wsub (source) _ . _ . _ wsub(destination) eq (szám)
int (id)
ip access-group (szám) in/out
sh access-lists (szám)
"PRIVÁT CSAK KI":
ip access-list standart "név" /(szám)
      permit host _._. _ (public)
int (id)
      ip access-group "név" /(szám) out
"PUBLIKUS CSAK BE":
ip access-list extened "név" /(szám)
      permit ip any host _._. _ (public)
int (id)
      ip access-group "név" /(szám) in
Eigrp:
router eigrp (AS)
      eigrp router-id _._._ _
      passive-int (int id)
      no autosummary
      redistribute static
      network _._. _ wsub
int (id)
      ipv6/ip summary-address eigrp (AS) _._._ sub
      ip hello-interval eigrp (AS) (sec)
      ip hold-time eigrp (AS) (sec)
int (id)
ip authentication mode eigrp (AS) md5
ip authentication key-chain eigrp (AS) "key név"
sh ip ospf neightbor
ip bandwidth-percent eigrp (AS) ### eigrp settings reset
int lookback (id)
      ip add _._.. sub
Jelszó visszaállítás Router-en:
      Rom-monitor
           ctrl+break
            confireg 0x2142 ### boot regiszter átállítása
           reset
      ena
      copy st r ### régi elmentett config betöltése
      conf t
      ena secrete "jelszó"
```

```
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port\text{-}security \ / \ \_. \ \_. \ \_= ip \ cim \ / \ wsub=wildcard \ maszk \ / \ st = sartupconfig \ / \ r= runing\text{-}config \ / \ conf \ t = configure \ terminal \ / \ ena = enable \ / \ AS = eigrp \ id \ / \ pass = eigrp
= password / sec = secret
         config-register 0x2102
         copy r st ### elmentjük a változásokat, hogy a jelszó meg változzon
         reload
sh ip eigrp int
sh version
sh flesh
sh ip eigrp topology all-links/netwok/AS
sh ip eigrp nightbors
debag eigrp fsm
sh cdp neghbors ### cdp a cisco által fejlesztett felderidő protocol (Cisco Discovery Protocol)
sh life system
sh spanning-tree vlan
sh int trunk
sh spanning-tree
PPP-conf
user name "név" pass "jelszó"
int (id)
         encapsulation ppp
         ppp authentication ppp
Pvst+
sapnning-tree mode rapid-pvst
int (id)
spanning-tree link-type point-to-point
clear spanning-tree detected-protokols
sh int port-channel(id)
sh etherchannel port-channel
sh int etherchanel
sh ip route static | begin gateway
sh ip protocols
Standby:
int (id)
         standby (id) ip _._.. _
         standby priority (szám)
         standby preempt
boot system flash:// (név)
sh license feature
sh license udi
license install flash "fájl név"
license accept end user agrelment
license module "modul név" technology-ackage "név"
license save flash "license név"
license boot module "név" technology-package "név" /disable
license clear "név"
security authenticationfailure rate (szám) log
privilage exec level (0-15) "kulcs szó"
ena sec level (1-15) "jelszó"
Chap
username "másik router neve" sec/pass "jelszó"
int (id)
         encapsulation ppp
         ppp authentication chap
PAP
username "másik router neve" sec/pass "jelszó"
int (id)
         encapsulation ppp
         ppp pap sent-username "saját router neve" sec/pass "jelszó"
 Frame-relay
```

int (id)
bandwidth (szám kb)
ipv4/ipv6 _._._.
encapsulation frame-relay
frame-relay map ip/ipv6 _._._ (dlci) broatcast/cisco/ietf
sh frame-relay map

```
int=interfaces / sho=show / hos=hostname / sw=switch / sho=shoutdown / vl=vlan / sub=subnet \ maszk / add=address / r=range / swp=switchport / port-sec=port-security / \_._._. = ip cím / wsub=wildcard \ maszk / st = sartupconfig / r= runing-config / conf t = configure terminal / ena = enable / AS = eigrp id / pass = password / sec = secret
```

```
Gre
int tunnel (id)
   ip add _._._ _
   tunnel source (global) (int id)
   tunnel destionation _._._ (global)
router ospf/eigrp (id/AS)
   network _._.. _
<u>Isak</u>
access-list (id) permit udp _._._ (source) wsub _._. (destionation) wsub eq isakmp
sh crypto isakmp default policy
crypto isakmp key "jelszó" add _._.. _
sh crypto isakmp sa
crypto map "név" (szám) ipsec-isaskmp/ipsec-manual
sh crypto map
int (id)
   crypto map "név"
clear ip nat translation *
service timestamps log uptime
sh logging
logging _._._.
logging trap (dibug id)
logging source-int (id)
sh logging |include changed state up
SNMP
snmp-server community ,,karakter lánc" ro/rw ### read only / read and write
snmp-server location "szöveg"
snmp-server host ____ version (id) "közzöségi karakter lánc"
snmp-server enable traps ### acces-list készítése
snmp-server group "név" v1/2/3/4
snmp-server user "név" "group név"
NETFLOW
int (id)
   ip flow ingress/egress/monitor ### outbound/inbound enable/flowmonitor apply
ex
ip flow-export destionation _._. _ (port id)
ip flow-export version (id) ### 1/5/7/8/9
sh ip cache flow
Ipsec
license boot module "név" technology-package securityk9
do copy r st
do reload
crypto isakmp policy (level id)
   encryption 3des/des/aes (bit key) ### triple des/Advanced Encryption Standard/Data Encrition Standard
   authentication pre-share
   group (DH szam) ### Diffie-hellman
   lifetime (second)
crypto isakmp key "key" add _._._ _
crypto map "név" (map entry) ipsec-isakmp
   description "leírás"
   set peer (source) _._._._
   match add (acl id)
crypto ipsec transform-set "név" esp-aes 256 esp-md5-hmac
int (id)
   crypto map "név"
FRAME-RELAY
int (id) ### serial vonalakon csak
   encapculation frame-relay
int (id). (id) pont-to-pont
```

 $int=interfaces / sho=show / hos=hostname / sw=switch / sho=shoutdown / vl=vlan / sub=subnet \ maszk / add=address / r=range / swp=switchport / port-sec=port-security / _._. _=ip cím / wsub=wildcard maszk / st = sartupconfig / r= runing-config / conf t = configure terminal / ena = enable / AS = eigrp id / pass = password / sec = secret$

ip add _._._ sub frame-relay int-dlci (dlci szam)

frame-relay map ip/ipv6 _._._ (dlci szam) broadcast

Diffie-Hellman Group	Name	Reference
Group 1	768 bit MODP group	RFC 2409
Group 2	1024 bits MODP group	RFC 2409
Group 3	EC2N group on GP(2^155)	RFC 2409
Group 4	EC2N group on GP(2^185)	RFC 2409
Group 5	1536 bits MODP group	RFC 3526
Group 14	2048 bits MODP group	RFC 3526
Group 15	3072 bits MODP group	RFC 3526
Group 16	4096 bits MODP group	RFC 3526
Group 17	6144 bits MODP group	RFC 3526
Group 18	8192 bits MODP group	RFC 3526
Group 19	256 bits random ECP group	RFC 5903
Group 20	384 bits random ECP group	RFC 5903
Group 21	521 bits random ECP group	RFC 5903