

Cheatsheet

Expert IT Systems and Devices (Crebo 25606)

Kerntaak B1-K2 – Infrastructuur

Basisconfiguratie

Deze instellingen voorkomen fouten, vertragingen en puntenverlies.

```
Router> enable
Router# configure terminal
Router(config)# hostname R1
Router(config)# no ip domain-lookup
Router(config)# service password-encryption
Router(config)# banner motd #VERBODEN TOEGANG#
```

Interface activeren

```
Router(config)# interface gigabitEthernet 0/0
Router(config-if)# ip address 192.168.1.1 255.255.255.0
Router(config-if)# description Link naar Switch
Router(config-if)# no shutdown
```

2? Switching & VLANs (Laag 2)

VLANs aanmaken

```
Switch(config)# vlan 10
Switch(config-vlan)# name PERSONEEL
```

```
Switch(config-vlan)# exit
Switch(config)# vlan 20
Switch(config-vlan)# name GASTEN
```

Access poorten

```
Switch(config)# interface fastEthernet 0/1
Switch(config-if)# switchport mode access
Switch(config-if)# switchport access vlan 10
Switch(config-if)# no shutdown
```

Trunk poorten

```
Switch(config)# interface gigabitEthernet 0/1
Switch(config-if)# switchport trunk encapsulation dot1q
Switch(config-if)# switchport mode trunk
Switch(config-if)# switchport trunk allowed vlan 10,20,99
Switch(config-if)# no shutdown
```

3? EtherChannel / LACP

```
Switch(config)# interface range g0/1 - 2
Switch(config-if-range)# channel-group 1 mode active
Switch(config-if-range)# no shutdown
```

```
Switch(config)# interface port-channel 1
Switch(config-if)# switchport mode trunk
Switch(config-if)# switchport trunk allowed vlan 10,20
```

4? Routing (Laag 3)

Router-on-a-Stick

```
Router(config)# interface g0/0
Router(config-if)# no shutdown
```

```
Router(config)# interface g0/0.10
Router(config-subif)# encapsulation dot1q 10
```

```
Router(config-subif)# ip address 192.168.10.1 255.255.255.0
```

```
Router(config)# interface g0/0.20
```

```
Router(config-subif)# encapsulation dot1q 20
```

```
Router(config-subif)# ip address 192.168.20.1 255.255.255.0
```

Default route

```
Router(config)# ip route 0.0.0.0 0.0.0.0 203.0.113.1
```

5? Services – DHCP & NAT

DHCP

```
Router(config)# ip dhcp pool LAN-10
```

```
Router(dhcp-config)# network 192.168.10.0 255.255.255.0
```

```
Router(dhcp-config)# default-router 192.168.10.1
```

```
Router(dhcp-config)# dns-server 8.8.8.8
```

NAT

```
Router(config)# interface g0/0
```

```
Router(config-if)# ip nat inside
```

```
Router(config)# interface g0/1
```

```
Router(config-if)# ip nat outside
```

```
Router(config)# access-list 1 permit 192.168.10.0 0.0.0.255
```

```
Router(config)# ip nat inside source list 1 interface g0/1 overload
```

6? Beveiliging – SSH & ACL

SSH

```
Router(config)# hostname R1
```

```
Router(config)# ip domain-name examen.local
```

```
Router(config)# crypto key generate rsa
```

```
Router(config)# username beheerder secret Cisco123
```

```
Router(config)# line vty 0 4
```

```
Router(config-line)# transport input ssh
```

```
Router(config-line)# login local
```

ACL

```
Router(config)# access-list 100 deny icmp 192.168.10.0 0.0.0.255 host 192.168.20.50
```

```
Router(config)# access-list 100 permit ip any any
```

```
Router(config)# interface g0/0.10
```

```
Router(config-subif)# ip access-group 100 in
```

7? Troubleshooting

```
show ip interface brief
```

```
show vlan brief
```

```
show ip route
```

```
show run
```

```
show ip nat translations
```

```
show etherchannel summary
```

Testen

```
ping 192.168.20.1
```

```
tracert 8.8.8.8
```

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