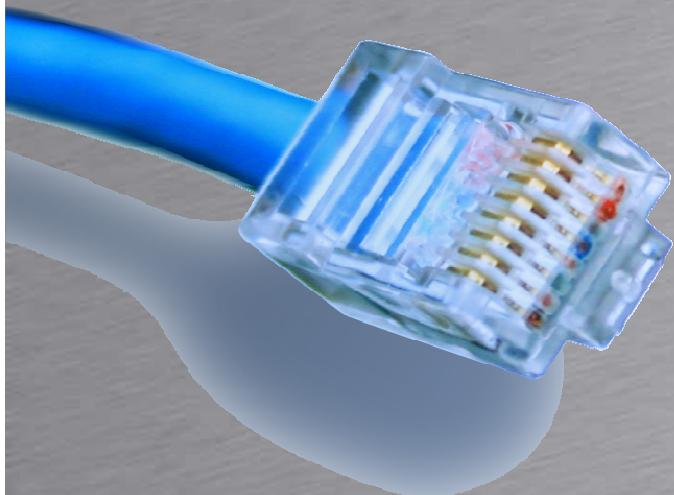


# Virtual Routers



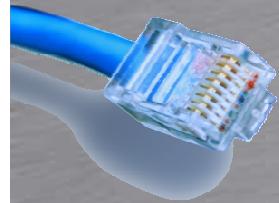
HOUSE OF  
TECHNOLOGY



- en del af **mercantec<sup>+</sup>**

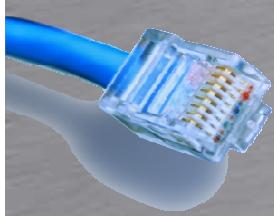
Units

Rasmus Elmholt V1.0



# Vlan Tagging

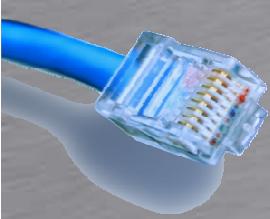
- Konfigurer interfacet til 802.1Q
  - vlan-tagging
- Opret units for hver vlan
- Konfigurer family inet
- Kæd et unit sammen med et vlan
  - Brug gerne samme nummer



# Vlan Tagging

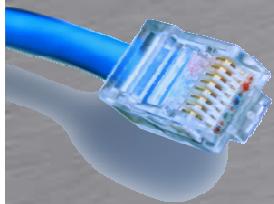
- Eksempel

```
[edit interfaces]
rael@SRX240# show
Ge-0/0/0 {
    description "Fysiske kunde net";
    vlan-tagging;
    unit 10 {
        description "Kunde A";
        vlan-id 10;
        family inet {
            address 10.0.10.1/24;
        }
    }
}
```



# Vlan RVI

- Virker som SVI interfaces
- Kæder flere interfaces sammen med det samme subnet



# Vlan RVI

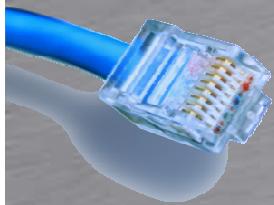
- Opret et VLAN

```
[edit vlans]
rael@SRX240# show

vl10 {
    vlan-id 10;
}

vl11 {
    vlan-id 11;
}

vl12 {
    vlan-id 12;
}
```

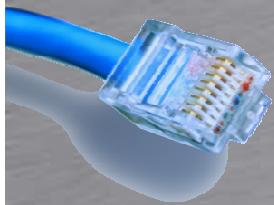


# Vlan RVI

- Opret et VLAN interface

```
rael@P1# top show interfaces vlan

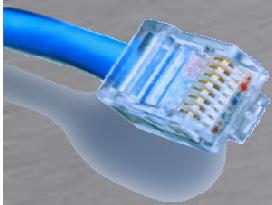
unit 10 {
    family inet {
        address 10.10.0.1/24;
    }
}
unit 11 {
    family inet {
        address 10.11.0.1/24;
    }
}
unit 12 {
    family inet {
        address 10.12.0.1/24;
    }
}
```



# Vlan RVI

- Opret port membership

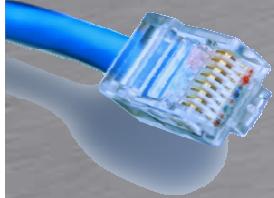
```
fe-0/0/6 {  
    unit 0 {  
        family ethernet-switching {  
            port-mode trunk;  
            vlan {  
                members [ v111 v112 ];  
            }  
        }  
    }  
}
```



# Vlan RVI

- Kæd det sammen

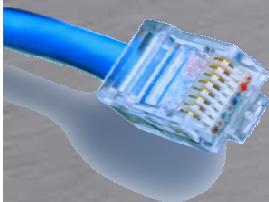
```
[edit vlans]
rael@P1# show
vl10 {
    vlan-id 10;
    13-interface vlan.10;
}
vl11 {
    vlan-id 11;
    13-interface vlan.11;
}
vl12 {
    vlan-id 12;
    13-interface vlan.12;
}
```



# Routing Instances

- Der findes forskellige Routing Instance typer under `edit routing-instances`

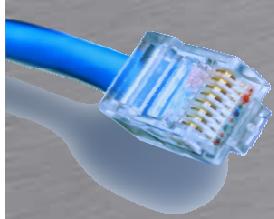
```
[edit routing-instances CostumerA]
root@CPE2# set instance-type ?
Possible completions:
forwarding           Forwarding instance
l2vpn                Layer 2 VPN routing instance
no-forwarding        Nonforwarding instance
virtual-router       Virtual routing instance
vpls                 VPLS routing instance
vrf                  Virtual routing forwarding instance
```



# Routing Instances

- Eksempel

```
[edit routing-instances CostumerA]
root@CPE2# show
instance-type virtual-router;
interface fe-0/0/5.10;
interface fe-0/0/6.11;
interface lo0.1;
routing-options {
    static route 10.0.0.0/24 next-hop 172.16.4.1;
    router-id 10.0.0.1;
    autonomous-system 65000;
}
protocols {
    bgp {
        group CostumerA {
            neighbor 192.168.0.1;
        }
    }
}
```



# Routing Instances

- **Fejlfinding**

- Show route table CostumerA.inet.0
- Show interface terse routing-instance