

EIGRP (Enhanced Interior Gateway Routing Protocol)

Diverses

Cisco proprietary
 Distance vector Routingprotokoll
 Classless
 Authentication
 Multicast (224.0.0.10)
 Administrative Distanz: 90
 Keine periodischen Updates
 Topology Table: enthält backup-Routen

Packet Types

- Hello (discover neighbors, form adjacencies)
- Update (routing information)
- ACK (Bestätigung von Update, Query, Reply)
- Query (searching for networks)
- Reply (Antwort auf Query)

Metrik

bandwidth, delay, reliability, load

$$\text{metrik} = (k1 * \text{bandwidth} + (k2 * \text{bandwidth}) / (256 - \text{load}) + k3 * \text{delay}) * (k5 / (\text{reliability} + k4))$$

Standard: $k1 = k3 = 1, k2 = k4 = k5 = 0 \Rightarrow \text{metrik} = \text{bandwidth} + \text{delay}$????????

Algorithmus

DUAL (Diffusing Update Algorithm)

Grundkonfiguration

```
ROUTER(config)# router eigrp as (Autonomes System, muss auf allen Routern gleich sein)
ROUTER(config-router)# network IP
ROUTER(config-router)# network IP WC
```

Sonstige Konfiguration

Statische Routen weiterleiten

```
ROUTER(config-router)# redistribute static (alle statische Routen)
```

Intervalle

```
ROUTER(config-if)# ip hello-intervall eigrp as-nr seconds
ROUTER(config-if)# ip hold-time eigrp as-nr seconds
```

Diagnose

```
ROUTER# show ip route
ROUTER# show ip protocols
ROUTER# show interface (bandwidth, load, ...)
ROUTER# show ip eigrp neighbors
ROUTER# show ip eigrp topology (feasible successor)
```