SHL AB

IPv6 BGP/OSPF config for a ”small” ISP with Hurricane Electric peering

Leo De Geer

TR0003

Consultant/Trainer

Objective

- To get our RIR assigned IPv6 running, even if our internet provider is not providing IPv6
- BGP IPv6 Peering with HE/or any other BGP provider
- OSPFv3 internal

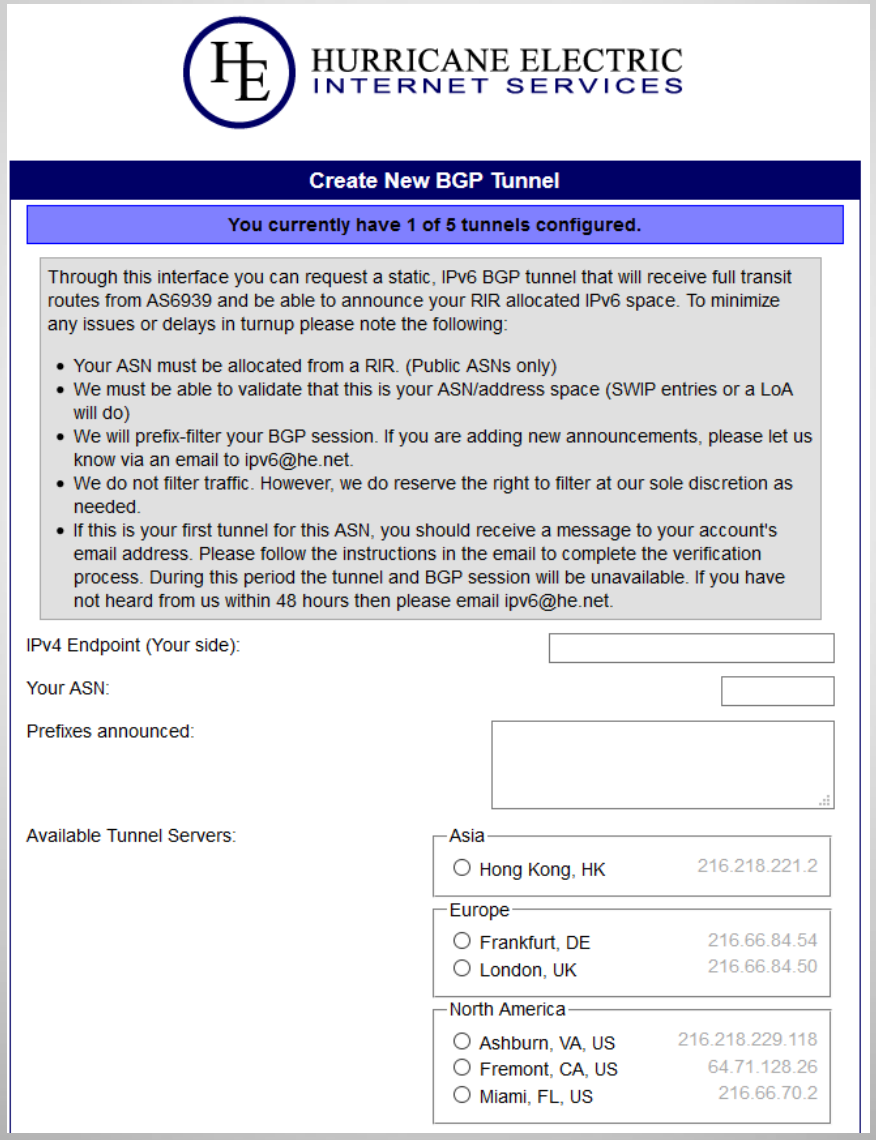
Think FIRST!

- Google Authenticator for RIPE and HE account
- Resource Certification at RIPE
- Route Origin Authorisations (ROAs)

BGP Peering HE

- Get an account first
- Edit or add ‘admin-c’
- Edit or add ‘tech-c’
- Send e-mail to ipv6@he.net
- Create BGP Tunnel

BGP Peering HE

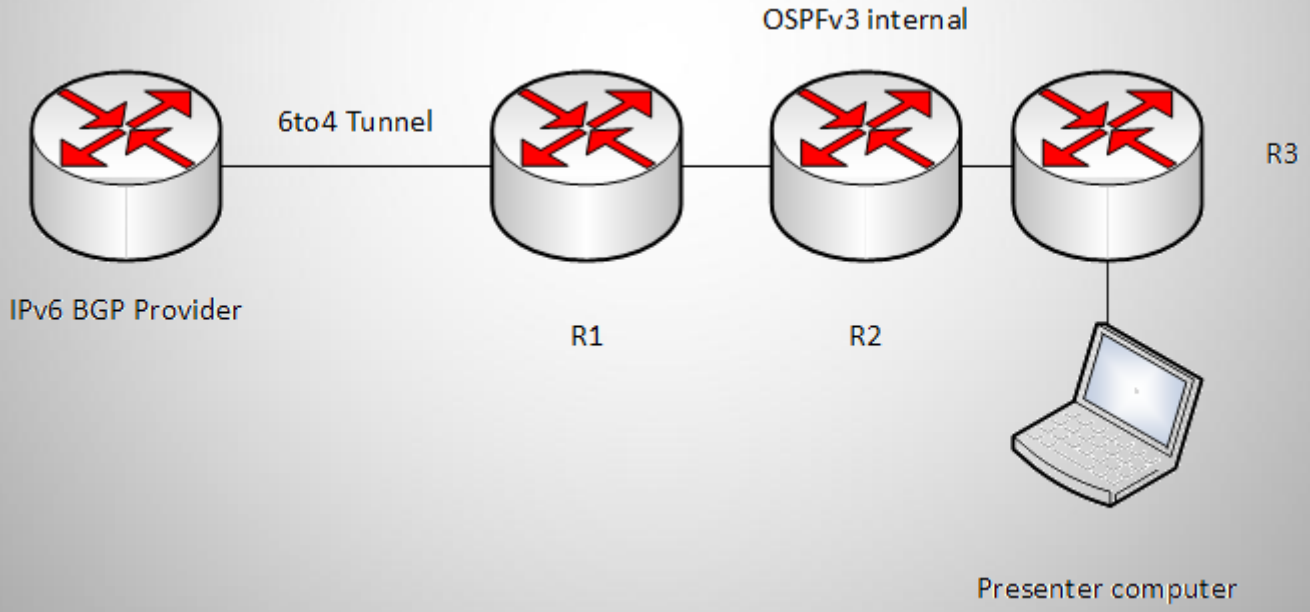


Let’s do it live

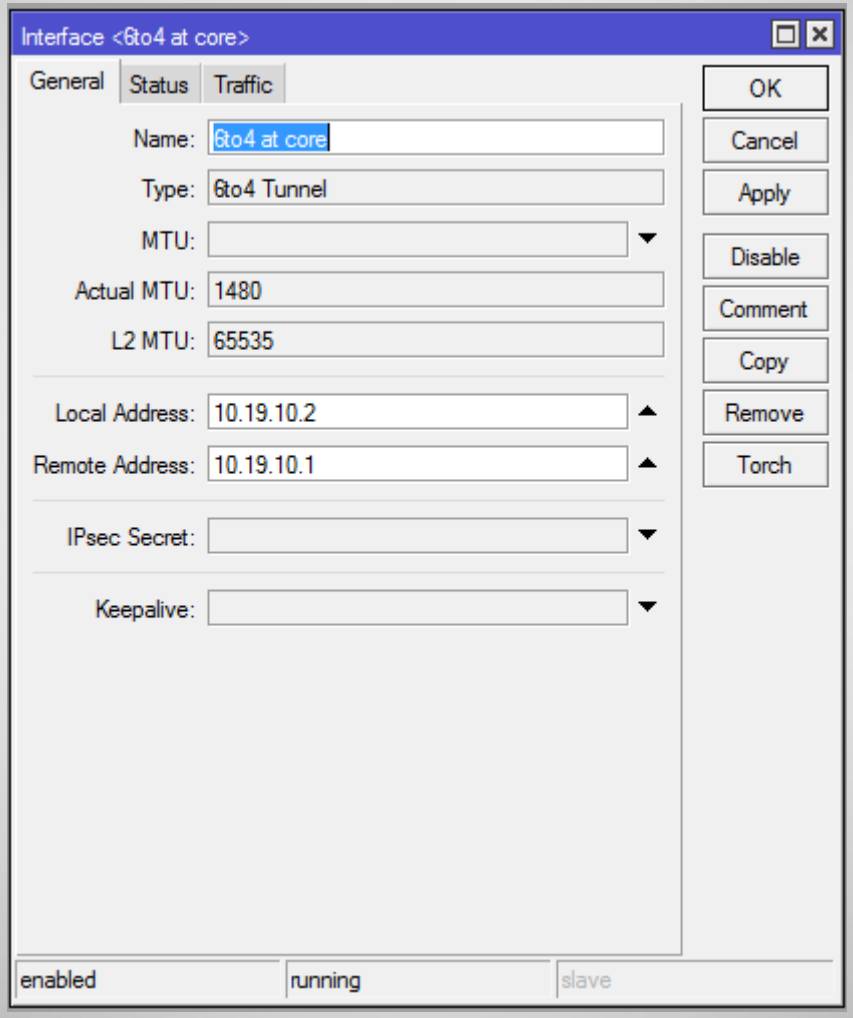
- This will be connected to my core router, not to HE
- One 6to4 tunnel to my core.

Setup to be done

- All routers Dual stack
- Last 3 routers local at MUM

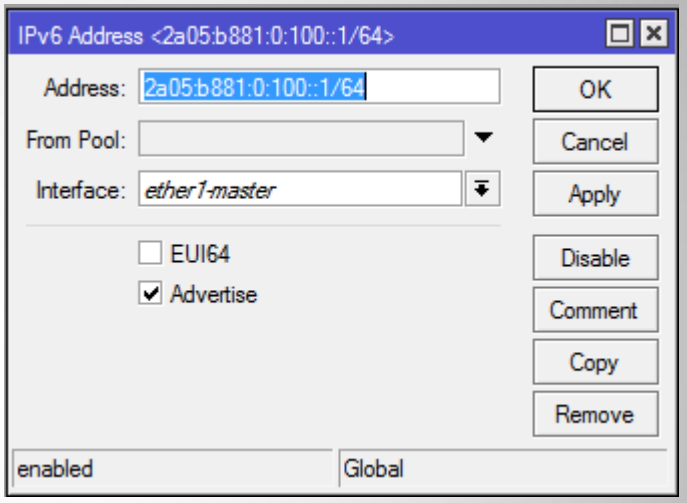


Setup the 6to4 tunnel

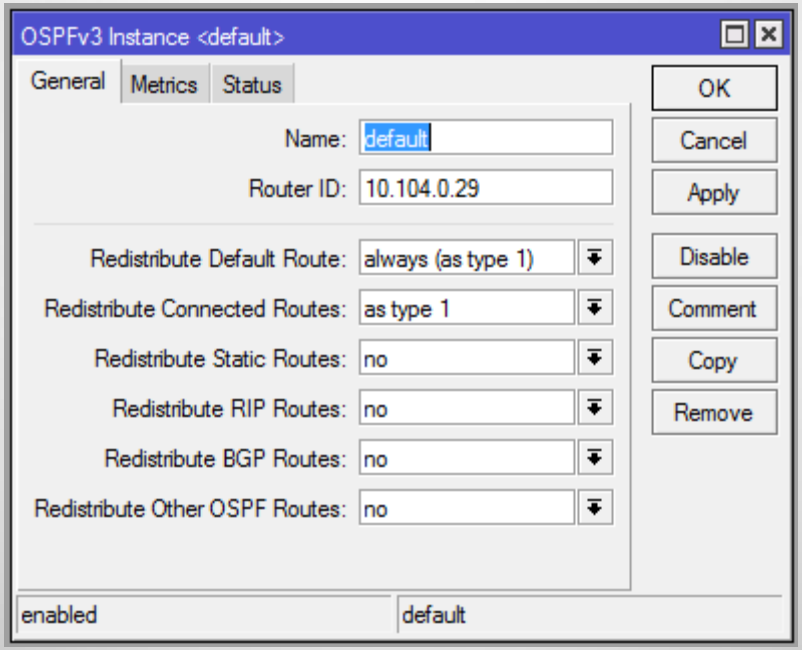


Add local IPv6

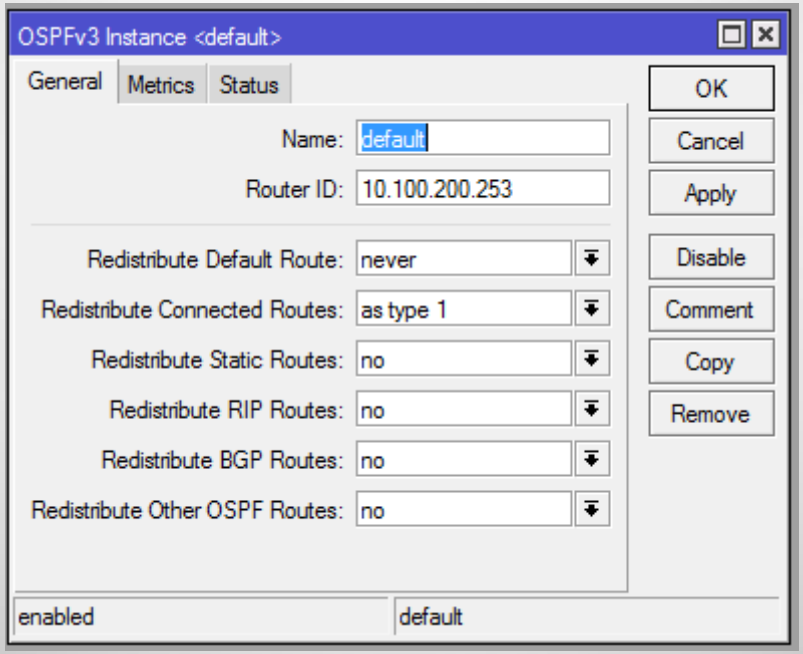
- Local are going to be
- 2a05:b880:0:6::2/64
- 2a05:b881:0:100::/64
- 2a05:b881:0:101::/64
- 2s05:b881:0:102::/64



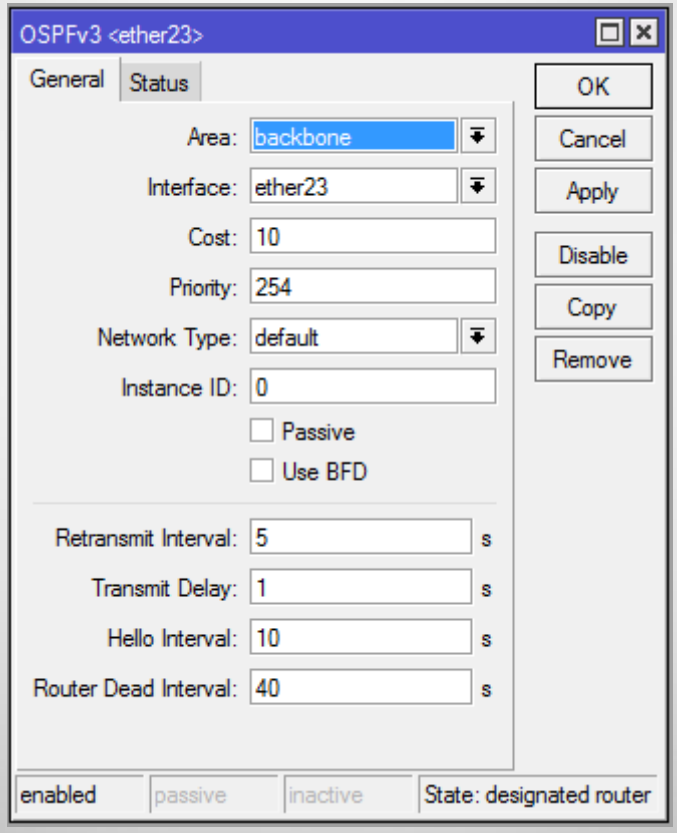
OSPFv3 instance on R1



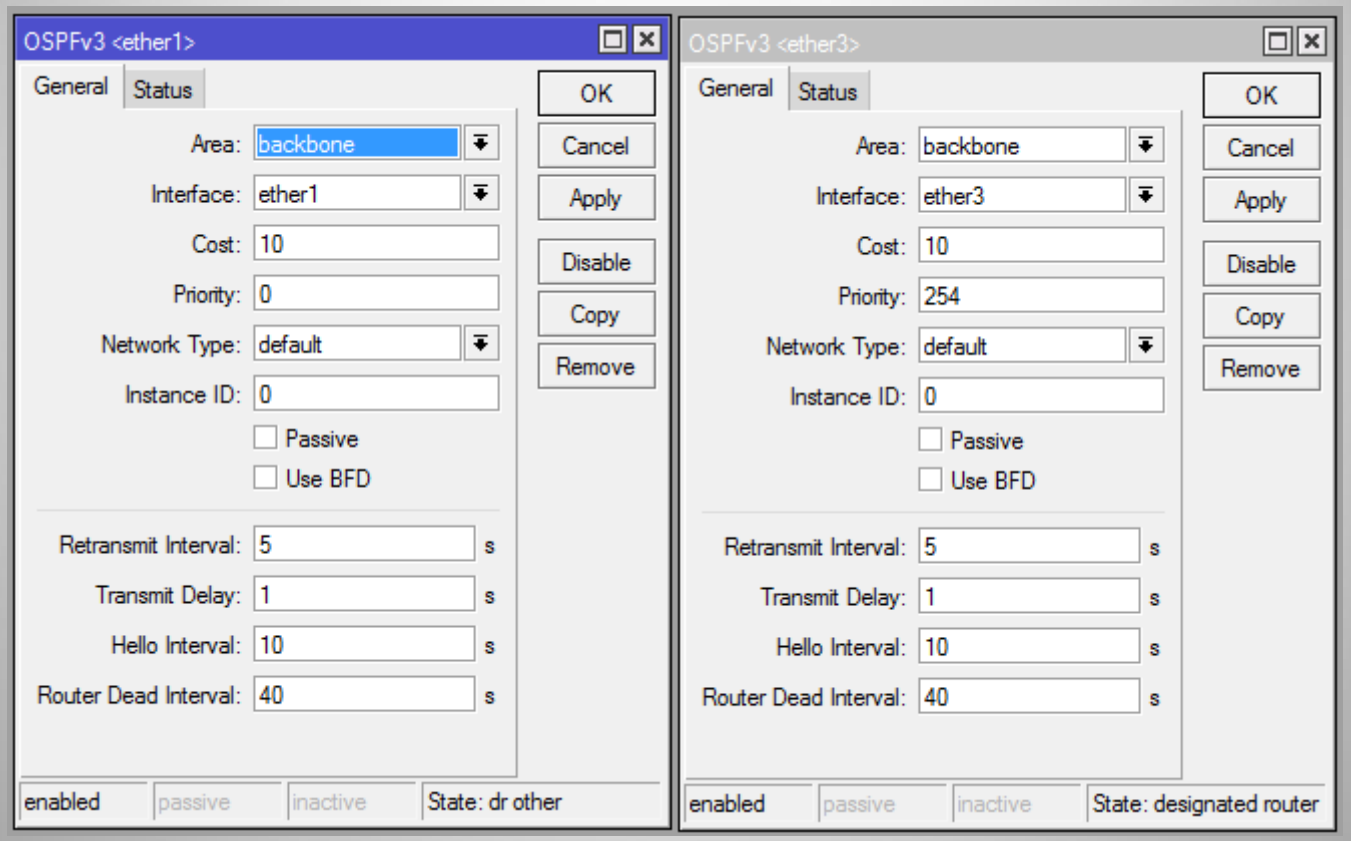
OSPFv3 instance on R2 & R3



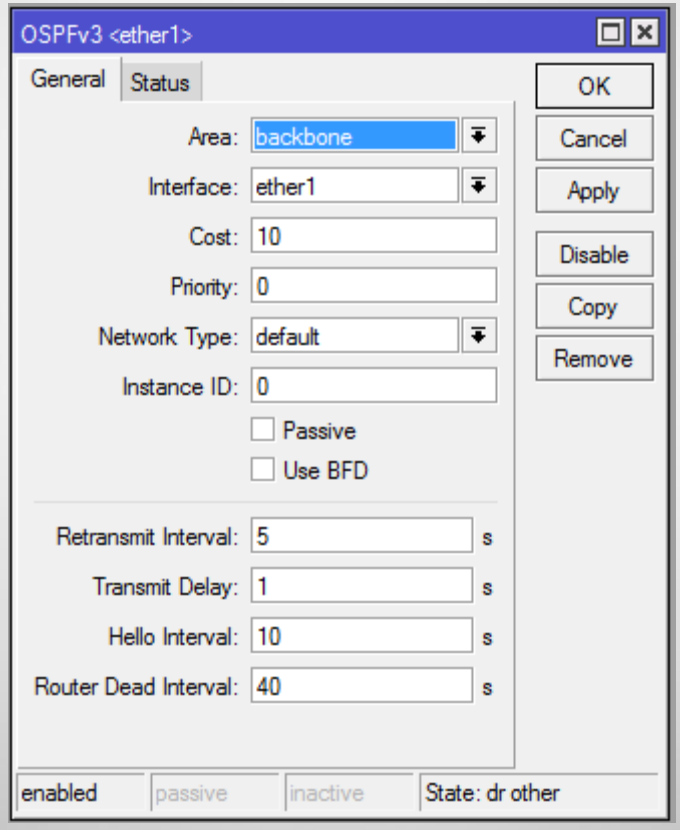
OSPFv3 interface R1



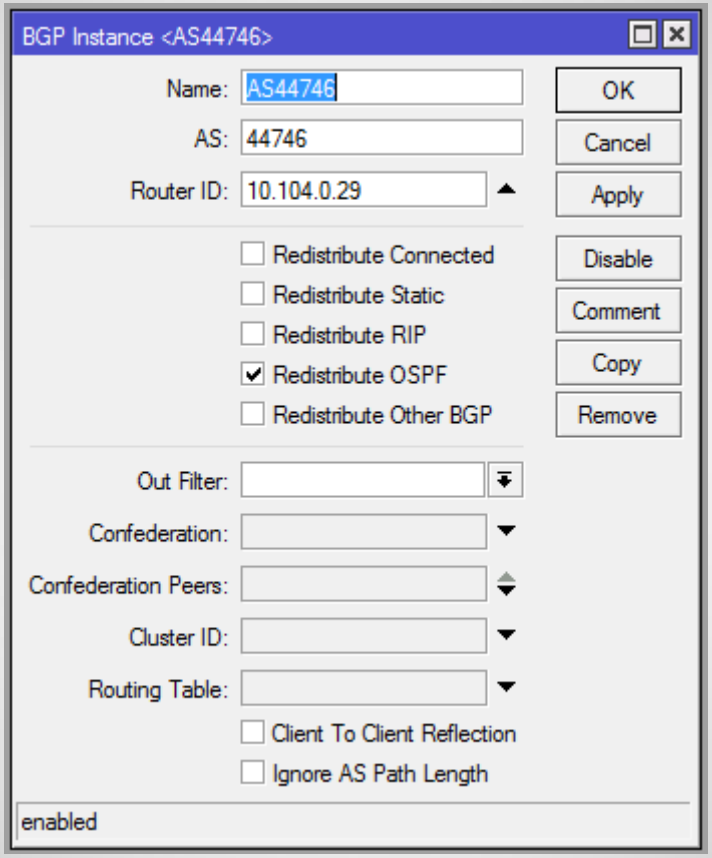
OSPFv3 interface R2



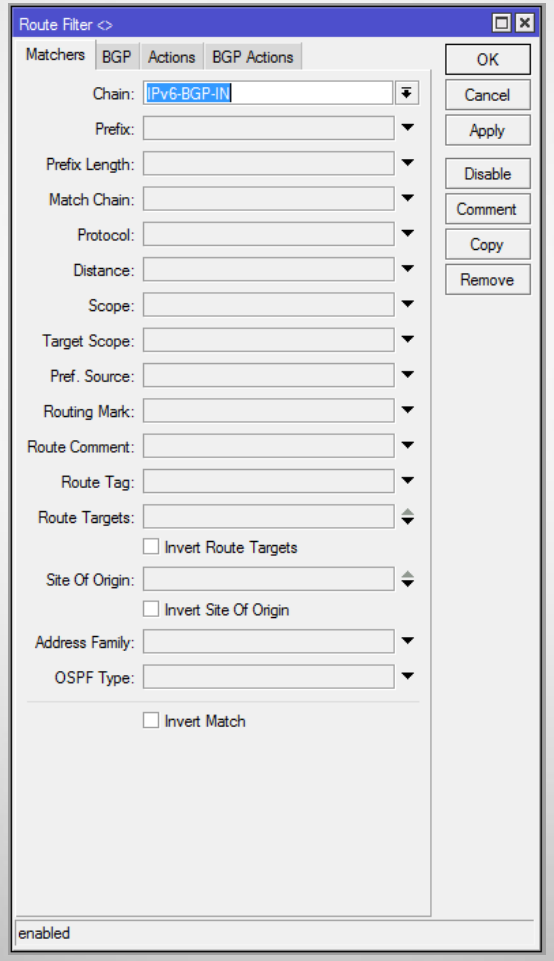
OSPFv3 interface R3



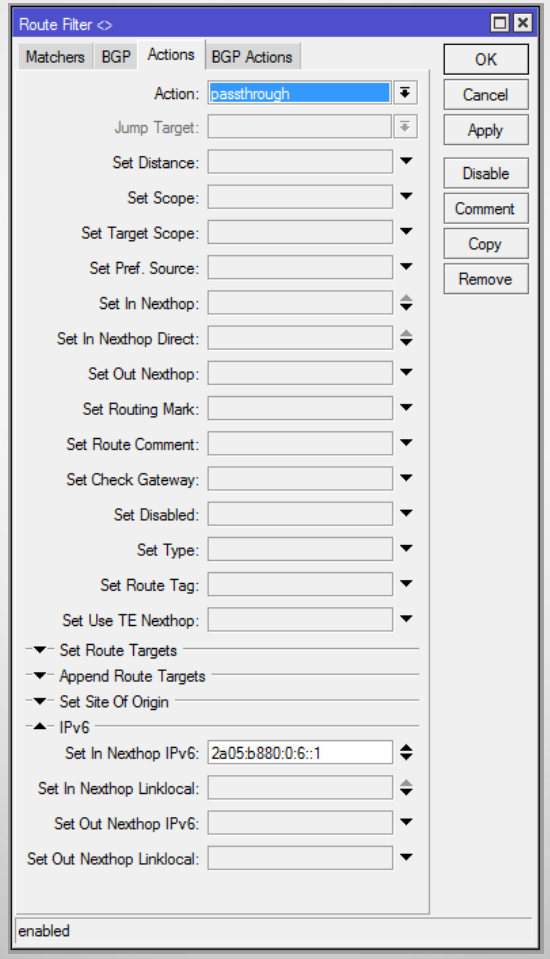
Setup the BGP instance



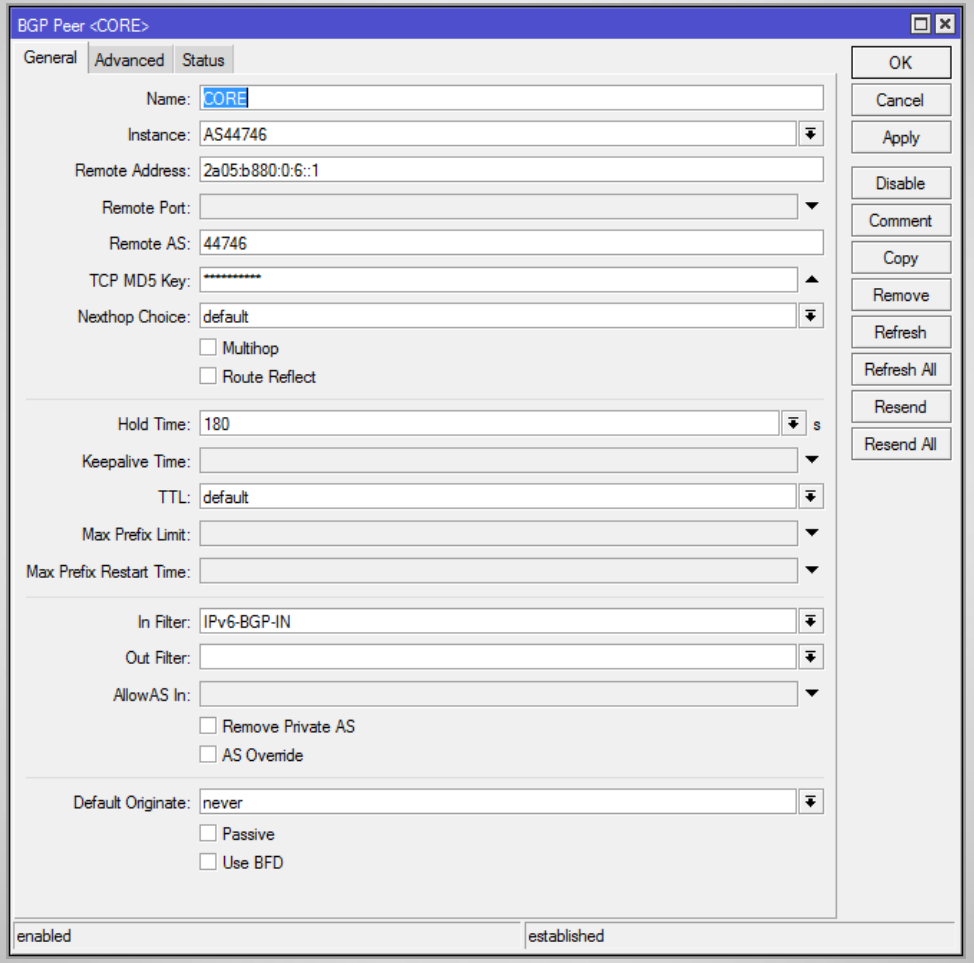
Routing filter



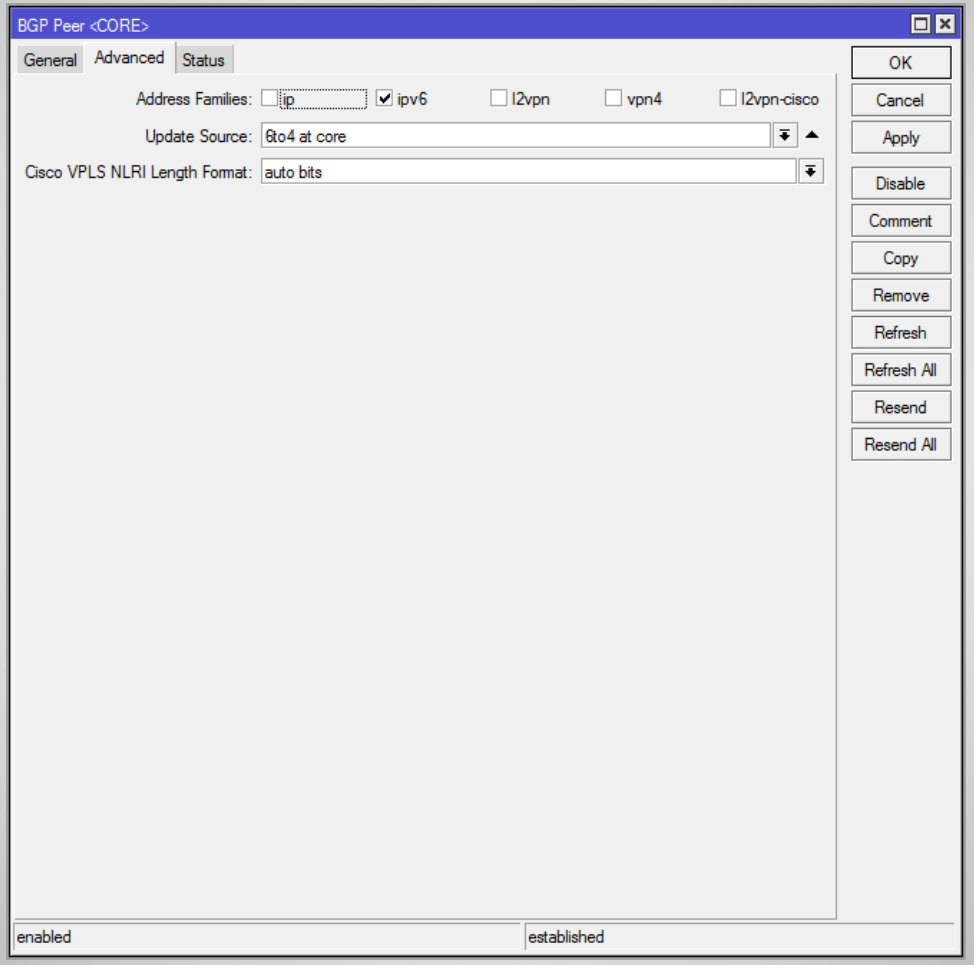
Routing filter



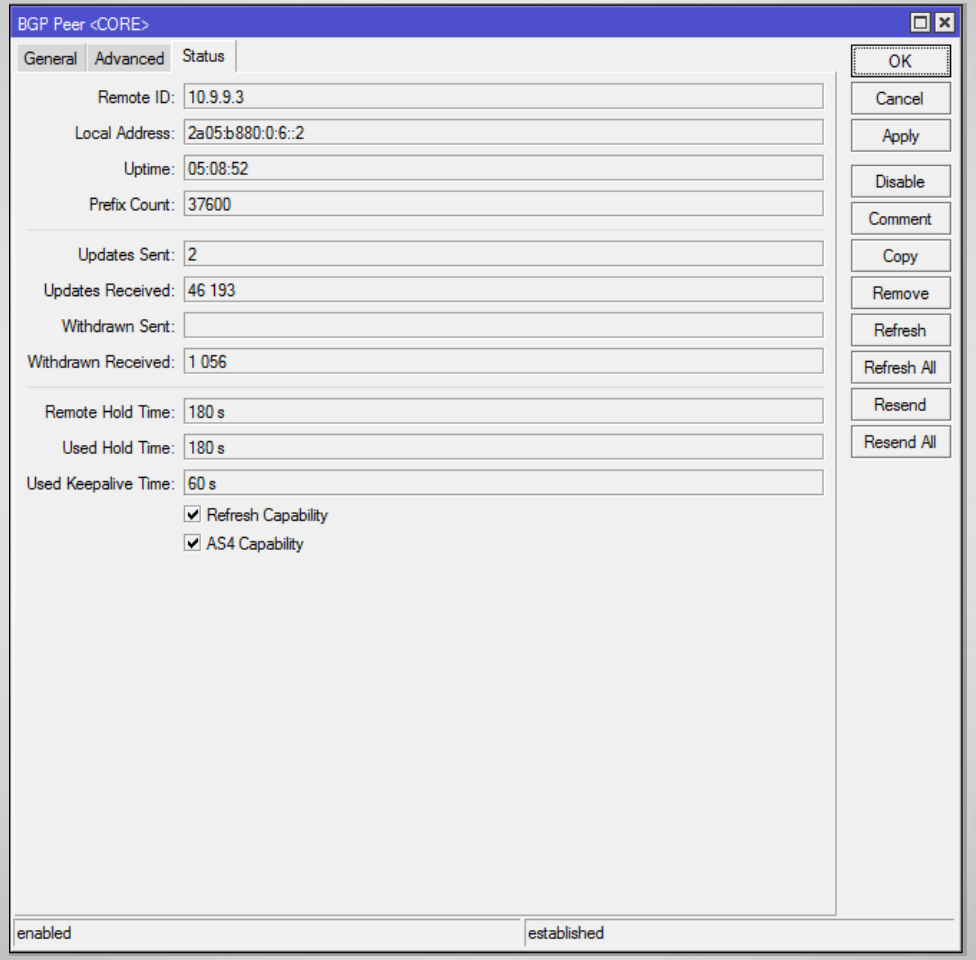
Setup the BGP peer



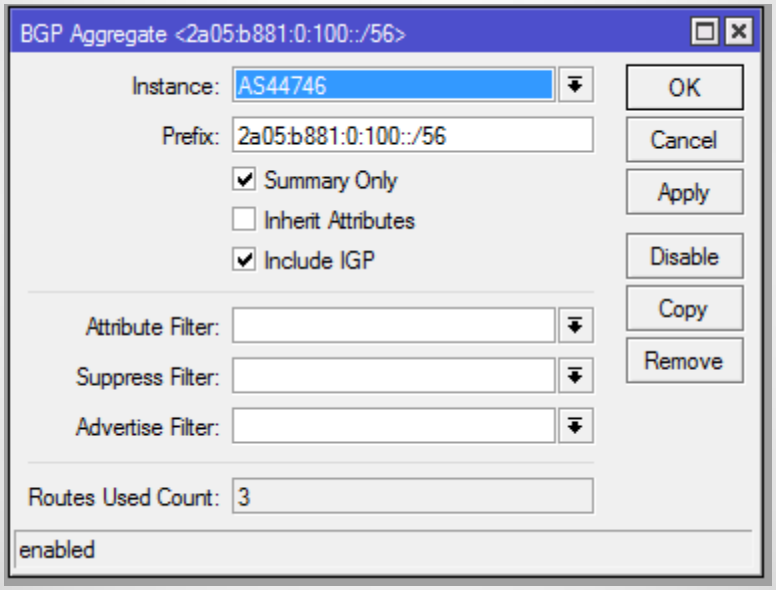
Setup the BGP peer



Setup the BGP peer



BGP Aggregates



Q & A

Leo De Geer

Phone +46 705915987

support@mikrotik.se