IPv6 Peering in Switzerland

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Swiss IPv6 Peering "Project"

- Spawned off of Swiss IPv6 Task Force
  - Lobby^H^H^H^H^HAwareness Raising Group
  - With high visibility at CTO level
- Brings smaller and larger ISPs together
  - The latter thanks to management support (see above)
- Being a project, it should produce deliverables (ahem)
  - But mainly used as an informal communication platform
- Meeting roughly ever 2-3 months
  - In Zurich so far, which is bad for nation-wide participation

Swiss IPv6 Peering - Current State

- There are about eight ISPs peering at TIX Zurich
- Only two of the GigE-connected ISPs dual-stack
  - The others have separate hardware for IPv6
- Smaller ISPs tend to do dual-stack right away

IPv6-specific Peering Issues

- Hmmm... are there any?

- Lack of routing registry
  - We love the routing registry - everybody in Switzerland uses it for IPv4
  - (Waiting for RPSLng)
- Address-space metric for peering decision?
- IXP support for IPv6?
  - Not really necessary...
  - ...but one IXP gives a 50% discount for v6-only ports

RPSLng

```
$ jwhois -h rpslng.ripe.net -p 53001 -- -T aut-num AS559
[Querying rpslng.ripe.net]
[rpslng.ripe.net]
aut-num:      AS559
as-name:      SWITCH
[...]
mp-import:    afi ipv4,ipv6 from AS3257 accept AS-TISCALI;
mp-import:    afi ipv4,ipv4.multicast from AS3303 accept AS-SWCM;
mp-import:    afi ipv6 from AS3303 accept AS-SWCM;
[...]

$ jwhois -h rpslng.ripe.net -p 53001 -- -T route6 2001:620::/32
route6:       2001:620::/32
descr:        SWITCH, The Swiss Education & Research Network
origin:       AS559
mnt-by:       AS559-MNT
changed:      simon@limmat.switch.ch 20031027
source:       RIPE
```

So is there traffic over the peerings?

- Yes, lots!
  - (OK, mostly NNTP)
- There’s still some "mutual transit" going on
  - - but normal peerings are becoming the norm.
  - Still too few options for "regular" IPv6 upstream.

So how do I get a /27 from RIPE?

- By asking for it
  - if customer base justifies it
  - with the usual requirement for sound documentation

RIPE should be commended for breaking the /32 barrier.

- Remember there are just as many /27s in IPv6 than in v4!
- Or as many /27s in 2000::/3 than /24s in v4.