

# *IPv6 Peering Group*

- Active TIX Peering Matrix (24.3.2004)
- Youre TIX IPv6 Address
- Example SWITCH
- IPv6 Peering issue
- Aggregate and Filter



# Active TIX Peering (24.3.2004)

	A S	A S	A S	A S	A S	A S	A S
	5	3	3	6	8	9	5
	5	2	0	3	7	0	6
	9	7	3	0	8	4	0
AS 559							
AS 3257							
AS 3303							
AS 6730							
AS 8758							
AS 9044							
AS 15600							
AS 15623							

# Your TIX IPv6 Address

- 2001:7f8:c:8235:<IPv4-address>/48

Subnetmask for all/ 25 (255.255.255.128) Default Gateway= (125)

Name Peering	AS	Contact (remove underline)	NOC Contract (remove underline)	TIX IPv4	TIX IPv6*
Internet Pipeline AG	8271	peering_@pipeline.ch	support_@pipeline.ch	194.42.48.2	2001:7f8:c:8235:194:42:48:2
Sunrise #1	6730	bgp_@sunrise.net	bgp_@sunrise.net	194.42.48.3	2001:7f8:c:8235:194:42:48:3
COLT Internet	8220	peering_@colt.net	ops_@colt.net	194.42.48.4	2001:7f8:c:8235:194:42:48:4
Dolphins Networks	8758	peering_@as8758.net	noc_@as8758.net	194.42.48.6	2001:7f8:c:8235:194:42:48:6
CableCom	8404	peering_@cablecom.ch	noc_@cablecom.ch	194.42.48.7	2001:7f8:c:8235:194:42:48:7
GPS Technik / Swissline	8833	peering_@as8833.net	noc_@as8833.net	194.42.48.8	2001:7f8:c:8235:194:42:48:8
C&W Europe	12541	peering_@eu.cw.net	noc_@eu.cw.net	194.42.48.10	2001:7f8:c:8235:194:42:48:10
SWITCH	559	peering_@switch.ch	noc_@switch.ch	194.42.48.11	2001:7f8:c:8235:194:42:48:11
Swisscom IP-Plus #1	3303	peering_@ip-plus.net	helpdesk_@ip-plus.net	194.42.48.12	2001:7f8:c:8235:194:42:48:12
Profitel	12520	sbrown_@profitel.ch	sbrown_@profitel.ch	194.42.48.13	2001:7f8:c:8235:194:42:48:13
Solpa	9177	ip-contactpoint_@solpa.ch	ip-contactpoint_@solpa.ch	194.42.48.14	2001:7f8:c:8235:194:42:48:14
SOLnet	9044	peering_@solnet.ch	noc_@solnet.ch	194.42.48.15	2001:7f8:c:8235:194:42:48:15
Init 7	13030	sysadmin_@init7.net	sysadmin_@init7.net	194.42.48.16	2001:7f8:c:8235:194:42:48:16
TheNet	7766	support_@thenet.ch	support_@thenet.ch	194.42.48.17	2001:7f8:c:8235:194:42:48:17
VIA Networks (ex. KPNQwest)	1836	mw_@kpnqwest.ch	mw_@kpnqwest.ch	194.42.48.18	2001:7f8:c:8235:194:42:48:18
Mediaways	6805	peering_@mediaWays.net	ncc_@mediaways.net	194.42.48.19	2001:7f8:c:8235:194:42:48:19
Backbone Solutions AG	13250	mschrem_@backbone.ch	mkeller_@backbone.ch	194.42.48.24	2001:7f8:c:8235:194:42:48:24
Deckpoint	8327	peering_@deckpoint.ch	noc_@deckpoint.ch	194.42.48.26	2001:7f8:c:8235:194:42:48:26
Dataway	8237	uk_@dataway.ch	uk_@dataway.ch	194.42.48.28	2001:7f8:c:8235:194:42:48:28
Sunrise #2	6730	bgp_@sunrise.net	bgp_@sunrise.net	194.42.48.29	2001:7f8:c:8235:194:42:48:29
Cyberlink	15623	peering_@cyberlink.ch	noc_@cyberlink.ch	194.42.48.32	2001:7f8:c:8235:194:42:48:32
Telia Networks	1299	peering_@telia.net		194.42.48.36	2001:7f8:c:8235:194:42:48:36

# Peering Example SWITCH

- `Show bgp ipv6 unicast summary( Cisco IOS 12.2.18S )`

```
AS559 (SWITCH):Dolphins,Cyberlink, Tiscali, LAN-Services, Sunrise, SolNet  
und Swisscom IP-Plus:
```

```
2001:7F8:C:8235:194:42:48:6  
    4  8758  72238  72225  90635  0  0 7w1d 3  
2001:7F8:C:8235:194:42:48:15  
    4  9044  61891  47182  90635  0  0 08:57:45 1  
2001:7F8:C:8235:194:42:48:32  
    4 15623  72214 131802  90635  0  0 7w1d 1  
2001:7F8:C:8235:194:42:48:47  
    4  3257 144795 144421  90635  0  0 7w1d 31  
2001:7F8:C:8235:194:42:48:54  
    4 15600 17422  17431  90635  0  0 1w5d 1  
2001:7F8:C:8235:194:42:48:75  
    4  6730  71116  71130  90635  0  0 7w0d 1  
2001:7F8:C:8235:194:42:48:83  
    4  3303  78675 130722  90635  0  0 7w1d 12
```

# IPv6 Peering Issues

- Registry Issue ( RPSLng )
  - Address-space metric for peering decision
  - „The Art of Peering“
    - Identification                      new Tools required
    - Qualification                        as in IPv4
    - Implementation                    new Syntax
- 
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# Aggregate and Filter

- Aggregate:  
aggregate-address 2001:1680::/32 summary-only
- Filter:  
ipv6 prefix-list FULL-IN seq 10 permit 2001::/16 ge 24 le 48  
ipv6 prefix-list FULL-IN seq 15 deny ::/0 le 128

# *The future*

- Keep the global routing table small
- Mutli-Homing ?
- Transit Peering -> normal Peering

