



IPv6. Now!!

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Disclaimer: the configuration examples in this presentation are probably inaccurate. Use it on your own risk. If you find 5 errors in the presentation, let me know and you qualify for a free Init7 geek T-Shirt (please note your size) ...



Please refer to my
IPv6 Now!
presentation from SwiNOG #16.

<http://www.swinog.ch/meetings/swinog16/IPv6-now-swinog16.pdf>

It covers

- addressing
- smooth migration for IPv4 people
- routing



**Please also refer to the IPv6 Tutorial
by Philip Smith, Cisco:**

http://www.nanog.org/meetings/nanog44/presentations/Monday/SmithBonica_IPv6_N44.pdf

(especially if you run JunOS or IOS / IOS XR)



Face facts:

Less than 800 days until the free IPv4 pool gets exhausted. Current estimated X-Day: December 9, 2010.

But where are we now?

-> Presentation by Geoff Huston, APNIC of NANOG #44



1	 United States	365
2	 Germany	108
3	 Australia	79
4	 Japan	76
5	 United Kingdom	72
6	 Korea, Republic of	61
7	 Canada	57
8	 Netherlands	57
9	 EU	51
10	 Italy	39
11	 France	39
12	 Switzerland	33
13	 New Zealand	32
14	 Czech Republic	25
15	 Sweden	24
16	 Egypt	23
17	 Taiwan, Province of China	23
18	 Poland	22
19	 Venezuela	22
20	 China	22
21	 Russian Federation	20
22	AP	20
23	 Hong Kong	19
24	 Thailand	18

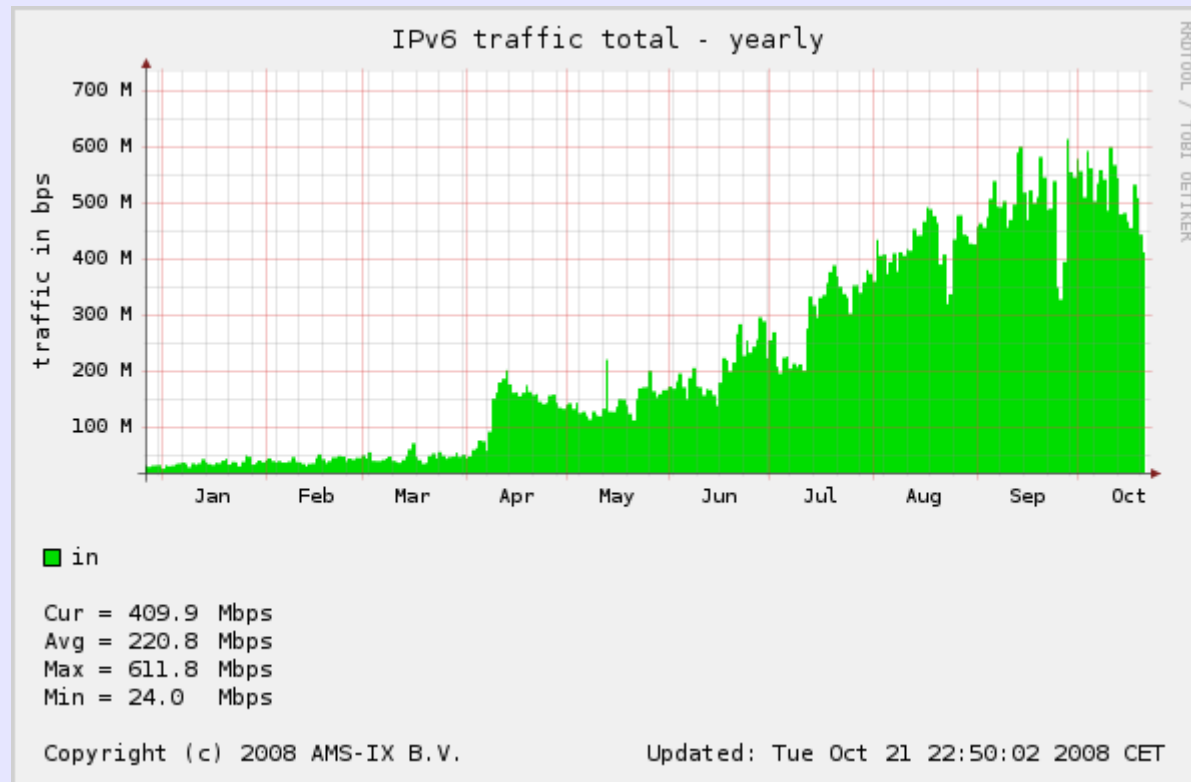
Where is Switzerland with its IPv6 deployment?

According to the IPv6 Weathermap of BGPmon.net Switzerland is #12 with 33 routed IPv6 Prefixes.

<http://bgpmon.net/weathermap.php?inet=6>



But ... one swallow doesn't make a summer, and an IPv6 prefix doesn't mean any "real IPv6 deployment". At AMS-IX 600+ mbps IPv6 traffic shows up (IPv4 ~500+ gbps):





Face facts:

90%

of the IPv6 Traffic is still

PING!

(no qualified sources, though)



IPv6 Deployment #1:

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<http://www.swinog.ch/meetings/swinog16/IPv6-now-swinog16.pdf>

IPv6 Deployment #2:

Neighbor Discovery Protocol (ND) – no definition of the default gateway is required anymore. A router propagates himself as the Default Gateway to v6-Hosts [On by default]. Please turn it off at interfaces facing an Internet Exchange:

Cisco:

```
!  
interface lo0  
ipv6 enable  
ipv6 address 2001:db8:1::101/128  
ipv6 nd suppress-ra  
!
```

Foundry Networks:

```
!  
interface lo 1  
ipv6 address 2001:db8:1::102/128  
ipv6 enable  
ipv6 nd suppress-ra  
!
```

IPv6 Reverse DNS Server

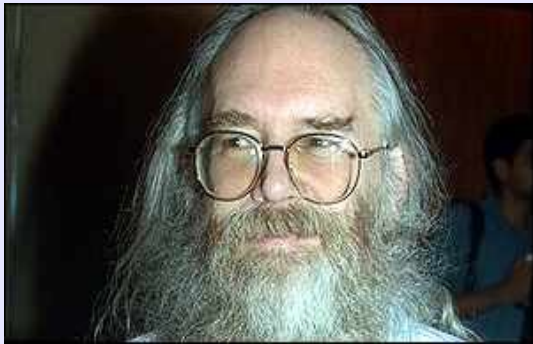
This is a nasty thing. I suppose we are going to postpone it...

Ladies and Gentlemen:



IPv6 NOW!!!

- NAT STRIKES BACK



SPRING 2009 – Starring GEOFF HUSTON, timekeeper of the X-DAY and JON POSTEL, Father of the Internet!



Help to deploy IPv6 in Switzerland!

- Obtain your IPv6 allocation now (ask the nice people from RIPE in the audience)
- Init7 offers IPv6 connectivity to all existing Colo/Transit customers free of charge according to their current CDR (BGP4 feed or static routing).
- Init7 offers IPv6 transit connectivity to non-customers (BGP4 feed only) free of charge until mid of 2009 (Cabling on prospects expense).
- DSL/Cable customers: no decent IPv6 CPE devices available yet, use Tunnelbrokers until further notice. Blame ... | Fritz | Zyxel | Netopia | ... |



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Questions?

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