

RIPE 47: IPv6 WG

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GH ST ROUTE

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BUSTERS

IPv6 Golden Networks

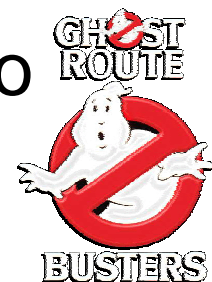
GRH: Ghost Route Hunter

URL: <http://www.sixxs.net/tools/grh/>

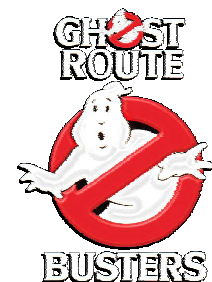
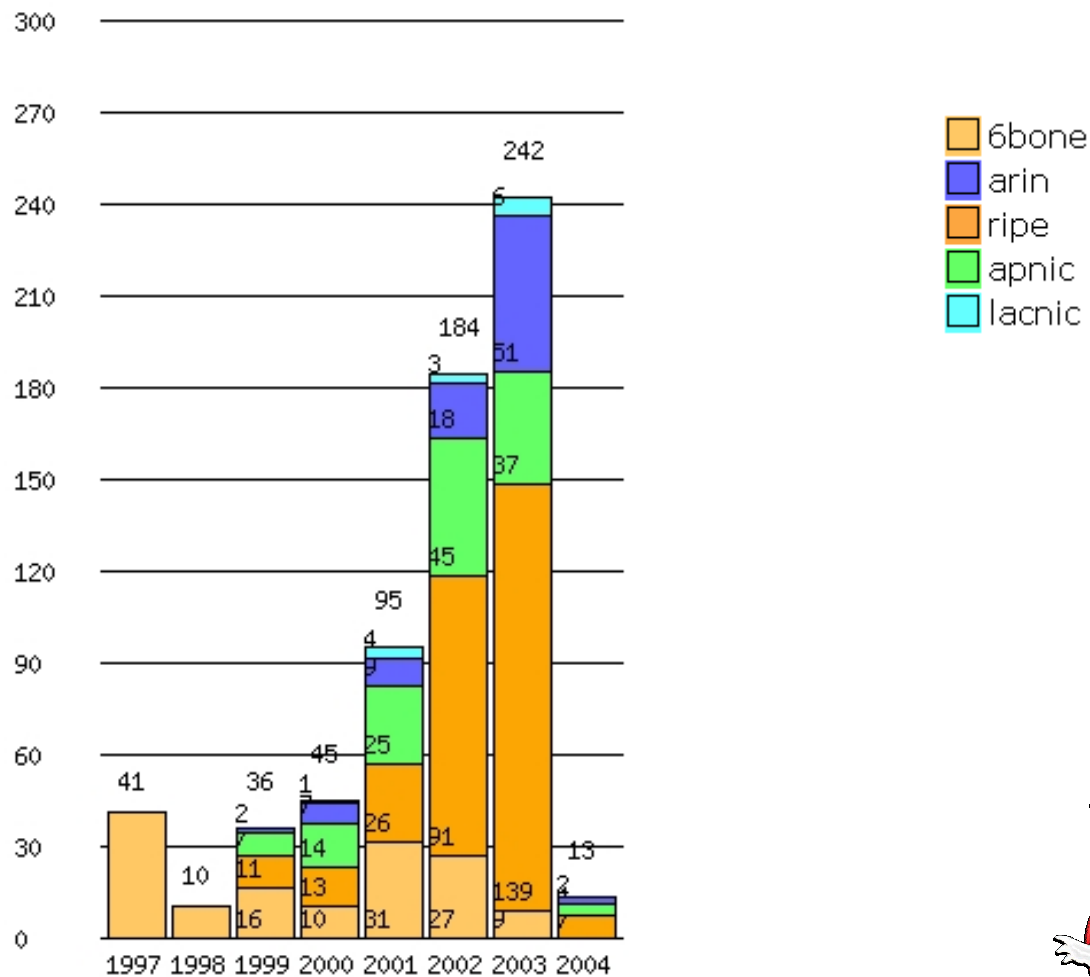
Contact: info@sixxs.net

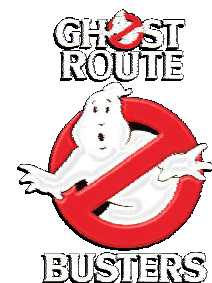
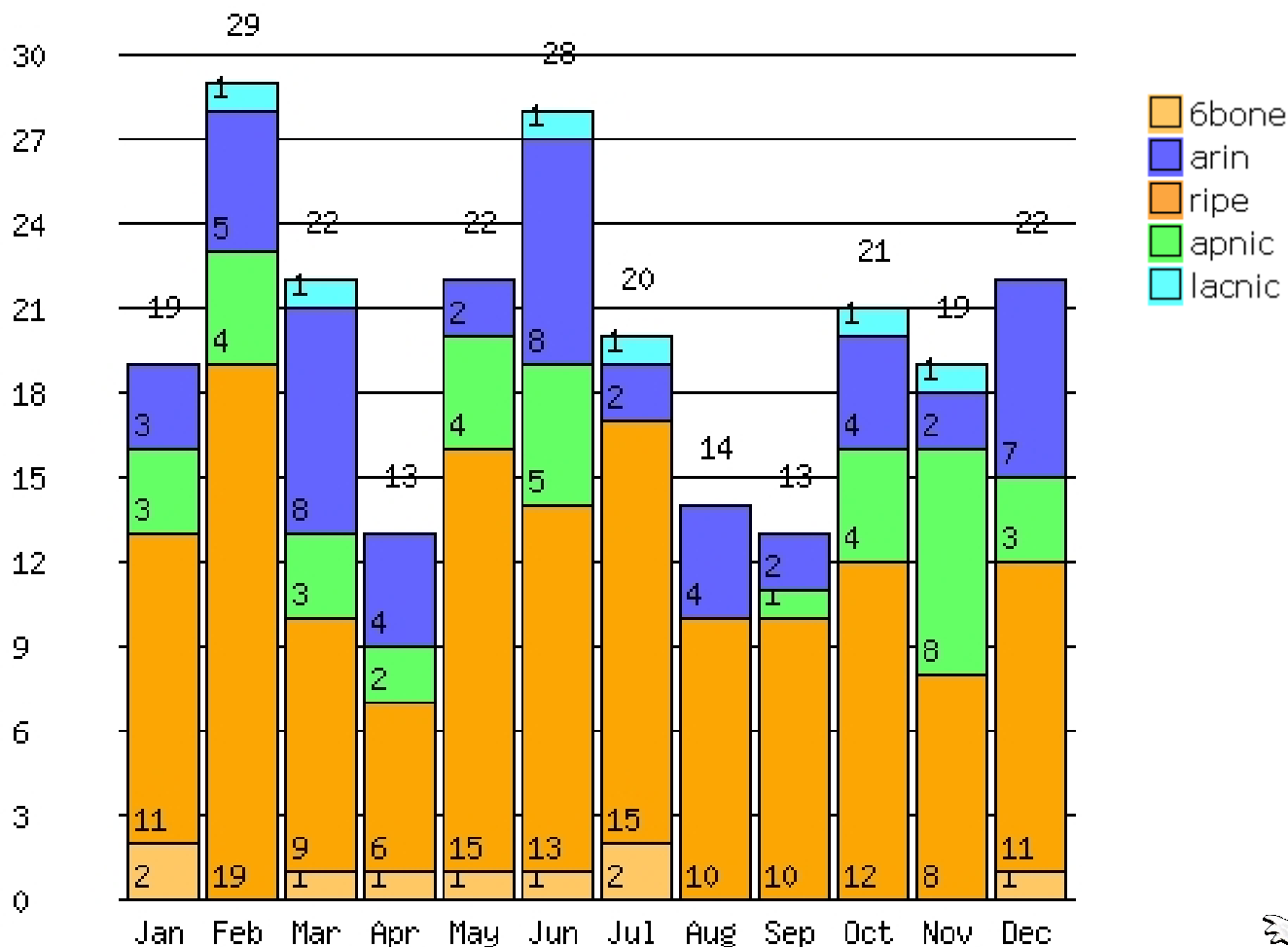
A tool for detecting and hunting down Ghost Routes in the IPv6 routing tables and displaying TLA availability.

More peers always wanted for a better view into the routing tables!



TLA allocations





SixXS TLA report for RIPE region

The database currently holds 287 IPv6 TLA's.

105 (36.59%) IPv6 TLA's didn't have a routing entry.

182 (63.41%) networks are currently announced.

0 only announced a /35 while they have been assigned a /32.

5 (1.74%) announce both their /32 and their /35.

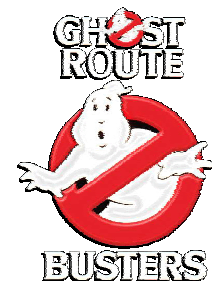


2001:db8::/32

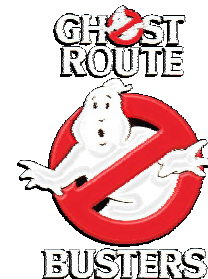
<http://www.apnic.net/info/faq/ipv6-documentation-prefix-faq.html>

<http://www.ietf.org/internet-drafts/draft-huston-ipv6-documentation-prefix-01.txt>

inet6num: 2001:0DB8::/32
netname: IPV6-DOC-AP
descr: IPv6 prefix for documentation purpose
country: AP
admin-c: HM20-AP
tech-c: HM20-AP
status: ALLOCATED PORTABLE
remarks: This address range is to be used for documentation
remarks: purpose only. For more information please see
remarks: <http://www.apnic.net/info/faq/ipv6-documentation-prefix-faq.html>
mnt-by: APNIC-HM
changed: hm-changed@apnic.net 20040115
source: APNIC



- **2000::/3 – current global unicast**
- **2001::/16 – RIR space (RIPE/ARIN/LACNIC/APNIC)**
 - **3ffe::/16 – 6bone (going away 6/6/6)**
 - **fe80::/10 – Link Local**
 - **fec0::/10 – Site Local (deprecated)**
 - **ff00::/8 – Multicast IPv6**



IPv6 Address Space Policy for Internet Exchange Points

<http://www.ripe.net/ripe/docs/ipv6-policy-ixp.html>

**"4.0 Warning: Networks assigned under this policy
may not be globally routable."**

2001:7f8::/32 (39) - 8 routes

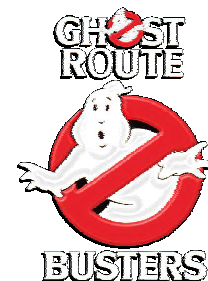
2001:504::/30 (10) – No routes

2001:7fa::/32 (10) – No routes

59 in total

APNIC is going to lift routing restriction per 2004-03-19

<http://www.apnic.net/docs/policy/proposals/prop-011-v001.html>



2001:7f8:1::/48 AMSIX

2001:7f8:2::/48 UK6IX

2001:7f8:4::/48 LINX

2001:7f8:5::/48 LIPEX

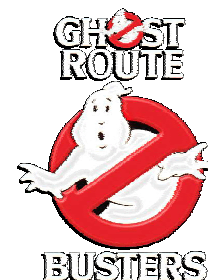
2001:7f8:8::/48 ECIX

2001:7f8:b::/48 MIX

2001:7f8:18::/48 INEX

2001:7f8:22::/48 F-IX

8 out of 39 allocated blocks



<http://www.ep.net/policy.html>

2001:478::/32 announced by AS6175 (Sprint)

Should only announce /48's.

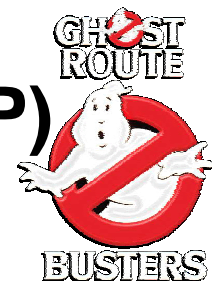
Currently seen :

2001:478:65::/48

2001:478:9200::/48

both announced by AS4555 (EP)

Also seen: 2001:478::/45 from AS4555 (EP)



ARIN

http://www.arin.net/registration/ipv6/micro_alloc.html

2001:0504::/30

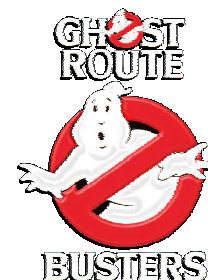
Exchange Points

10 at the moment

2001:0500::/30

Critical Infrastructure

4 at the moment



<http://www.root-servers.org>

2001:7fd::/32 – K

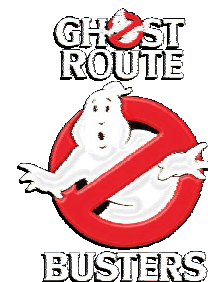
2001:7fe::/32 – I

2001:dc3::/32 – M

2001:500::/32 – ISC F + H

Others:

2001:dc4::/32 .jp



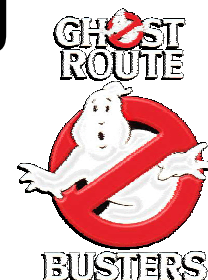
- **Very little filtering in the IPv6 world**
- **/64's announced and seen globally**
 - **bad aggregation leakages**

IPv6 Filter Recommendations by Gert Döring

<http://www.space.net/~gert/RIPE/ipv6-filters.html>

Minimal IPv6 Peering by Robert Kießling

<http://ip6.de.easynet.net/ipv6-minimum-peering.txt>



APNIC Proposals:

<http://www.apnic.net/docs/policy/proposals/prop-011-v001.html>

RIPE Smallest Assignments:

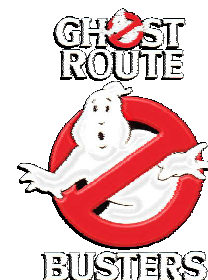
<http://www.ripe.net/ripe/docs/smallest-alloc-sizes.html>

ARIN's list of Micro Allocations:

http://www.arin.net/registration/ipv6/micro_alloc.html

RIPE's list of IPv6 allocations:

<http://www.ripe.net/ipv6/ipv6allocs.html>



Questions?

<http://www.sixxs.net/tools/grh/>

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