



BGP Tools

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Your Speaker Today...



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AGENDA

A Init7

B BGP Tools



A Init7

This is a placeholder for one or more marketing slides...

[...]



Init7 AS13030 Backbone Key Facts:

- connected to ~20 internet exchanges
- 962 IPv4 BGP adjacencies
- 517 IPv6 BGP adjacencies

(according to <http://bgp.he.net/>)



DISCLAIMER

These slides show experience examples of the Init7 / AS13030 backbone over various years. They may work or may not work for you. Please use the methods described with care and at your own risk. Init7 or the author cannot be held responsible for any damage occurred by using the methods described here.



B BGP Tools

BGP Tools #1

Looking Glass / Traceroute

Our public Looking Glass / Traceroute is what we use ourselves in 90% of the cases.

If your customer / peering partner sees the same as you it makes troubleshooting easier...

<http://www.init7.net/en/backbone/looking-glass/>

(Hint: please allow 'sh ip bgp | sh ip bgp regexp | sh ip bgp community ...')



BGP Tools #2

Looking Glass / Traceroute

LOOKING GLASS SERVICE AS13030

Router: Request: Argument:

BGP table version is 0, local router ID is 213.144.129.123
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
r RIB-failure, S Stale, R Removed
Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	Path
*>193.0.0.0/21	213.144.128.211	1	150	0	1273 3333 i
*>193.0.10.0/23	213.144.128.211	1	150	0	1273 3333 i
*>193.0.12.0/23	213.144.128.211	1	150	0	1273 3333 i
*>193.0.18.0/23	213.144.128.211	1	150	0	1273 3333 i
*>193.0.20.0/23	213.144.128.211	1	150	0	1273 3333 i
*>193.0.22.0/23	213.144.128.211	1	150	0	1273 3333 i
*>193.0.24.0/21	213.144.128.211	1	150	0	1273 3333 2121 i

Total number of prefixes ?

Room for improvement: we need to install more Route-Collectors in various locations (Amsterdam, London, NYC, Madrid etc.) to get a broader view.



BGP Tools #3

Flowstats

sFlow into nice graphs – OpenSource tool AS-Stats

Goal: to know the traffic from/to our BGP peers (and wanna-be peers).

Offload traffic from public peering: share traffic statistics with your partners helps to negotiations based on facts when implementing PNI peering.



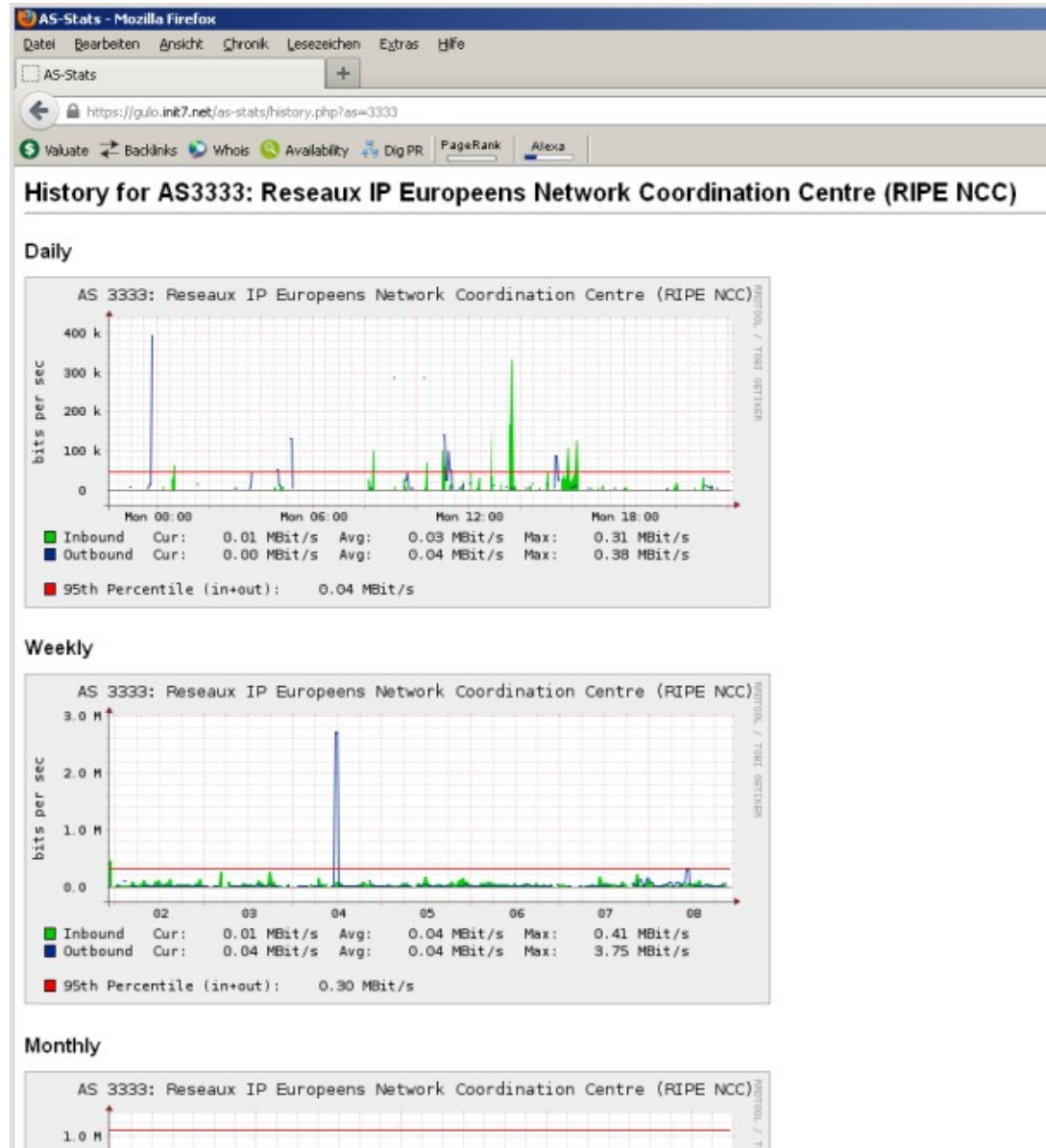
BGP Tools #4

Flowstats

AS-Stats is an open source tool which works with sflow and netflow, under active development, but somewhat beta.

It produces nice graphics based on RRDtool, which are CxO compatible...

<https://neon1.net/as-stats/>



BGP Tools #5

BGPviewer (BGP session aggregation script)

'sh ip bgp sum' dumped into a database...

Home-Grown script (... no documentation, duh):

- **dumps every few minutes shell commands into MySQL database ('expect' is your friend)**
- **small web front end for the NOC (written in PHP)**



BGP Tools #6

BGPviewer (BGP session aggregation script)

BGPViewer

Update
View not established sessions

Search:

AS

IXP

State

Neighbor IP

Router IP

Address Family

Type

Limit

View Sessions

AS: 3333 ([bgp.he.net](#))

2 results (limit: 250)

	Router IP	Neighbor IP	AS	Accepted Prefixes	Filtered Prefixes	Announced Prefixes	State	Up-/Downtime	Type	Notes					
	PDB	213. [REDACTED]	195.69.144.68	3333	7	0	825	connect	228d 12h 6m	Peering	email sent,20121126 cw				
	PDB	213. [REDACTED]	195.69.144.71	3333	7	0	825	connect	228d 12h 6m	Peering	email sent,20121126 cw				



Questions?

Please ask!

