

Impersonal ASNs

Views on Internet Numbers and Diets

* Using DBs and stuff from 15.08.2024 unless otherwise specified

RIPE NCC Open House: Personal AS Numbers (25.09.2024)

Radu Anghel / slides available @ <https://bgp.news/20240925-openhouse/>

* Definitely not a tutorial on how to register ASNs

It is not clear what a personal ASN is

- Without a clear definition anybody can claim anything
 - Double standards
- No special tags
 - Except in the “ultimate source of Internet truth”, bgptools
 - No separate pool
 - Registered by both **natural persons** and **companies**
 - Some are **LIRs**
 - Some are projects **sponsored by RIPE NCC Community fund**
- IANA refers to ASNs as “assigned to **network operators**”
 - Can’t we just say ASNs represent networks?
 - With same rights and **responsibilities**





Educational

- What can't be learned/experimented in a lab/private network using private ASNs?
 - Except 'feeling' the GRT
 - Except dog food
 - Except experiments approved/endorsed by RIPE NCC (or others), and announced in advance
 - * still, not Banksy
- Large communities + Huawei = <3 (experiment for a new RFC/standard)
 - Could this experiment be done by any ASN?
- Hypothesis: **maybe learning is not the purpose**
- However, assuming it is
 - Not feasible to have \$amount_of_CS_students registering ASNs each year

Unaddressed issues

- What happens to the end-users if the **LIR deaggregating PA closes?**
- How do you compare numbers between the Michelin star dog food and the rest of the diets?
- **Dog food (59645) vs. loss of income & unhappy customers (32934)**



Intergalactic Education

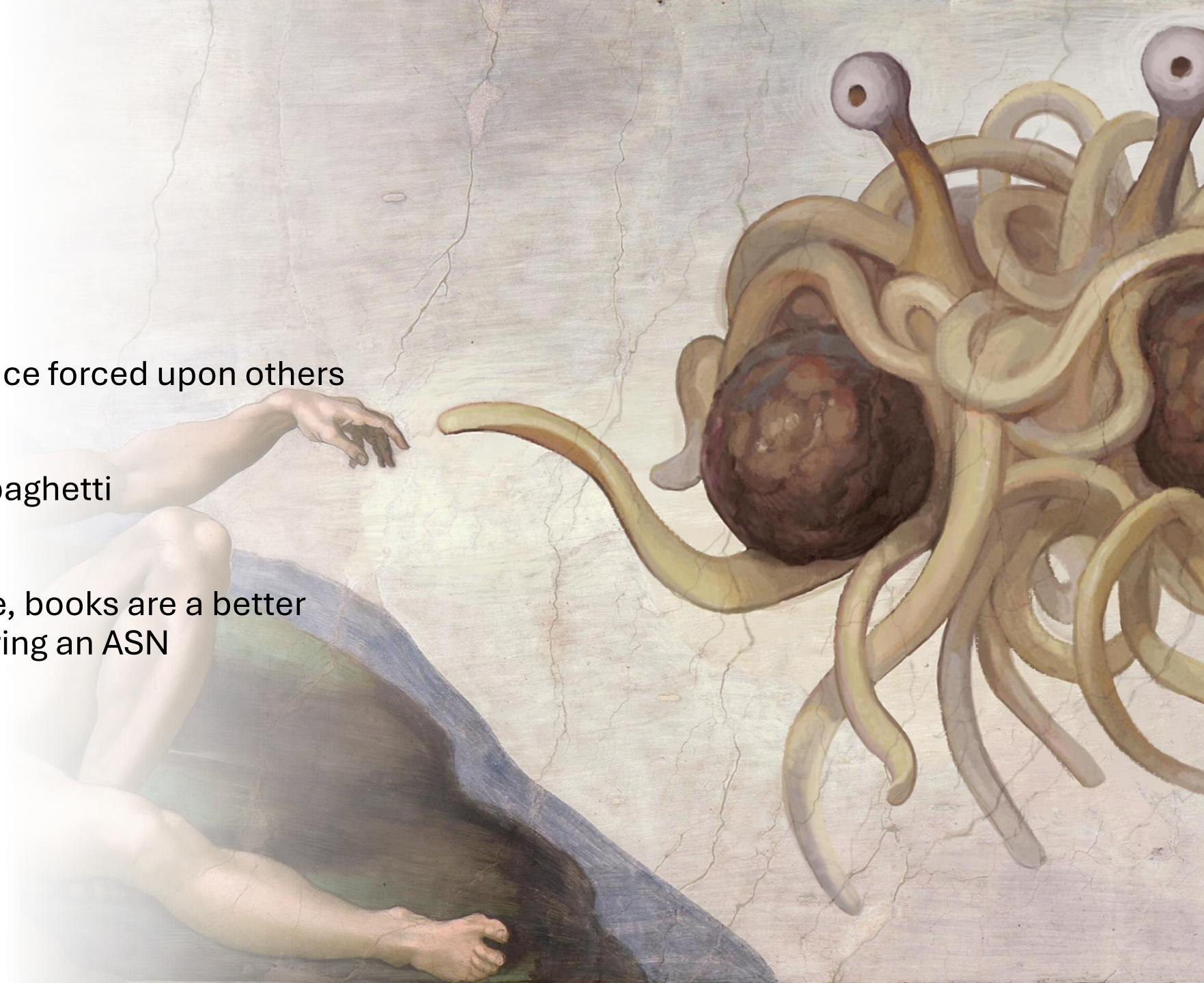
- Assuming education is the purpose
 - A lot of them are out of region
 - US, CN, HK, CA, TW
- Is RIPE NCC / the RIPE Service Region educating the whole world?
- **Proof of presence requirements?**
- What is the point of RIRs?

* **AQ** is in ARIN



Spaghetti

- Another dietary preference forced upon others
- New: direct ~T1s over spaghetti
- If learning is the purpose, books are a better investment than registering an ASN





The Lunch Money

- Short sidetrack to the ‘difficult arguments’
 - A company is a company. Not a non-profit.
 - Companies are for profit entities
- Is advertising unique **Internet Number Resources** to minors a common thing among LIRs or just for the one(s) specifically targeting that group?
- External evaluations of profits are subjective
 - this is so generous, only **20 coins**
 - RIPE NCC charges **0 coins** for the other thing but they charge **90 coins**
 - this generosity has no use without ‘**additional**s’: VMs, IXP ports
- **Maybe we should stick to the company/non-profit thing**

Minor problems

- <13
 - GDPR
 - COPPA (for the US-based young net. eng.)
- Should access to the RIPE DB be 18+?
 - Currently there is 18+ content in the DB
- Also, an ASN requires additional stuff
 - IPs
 - Equipment
 - Connectivity x 2

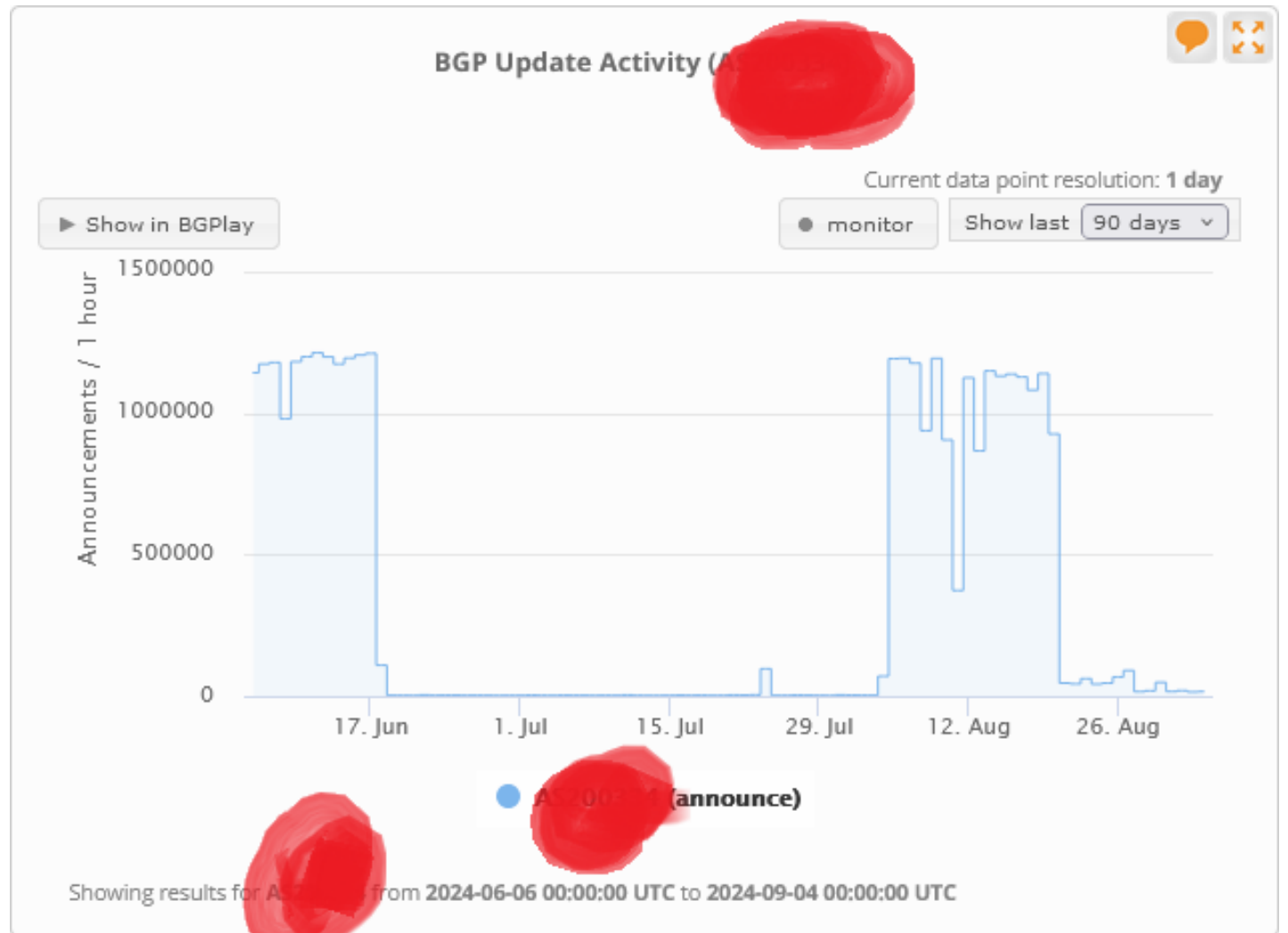


Global Warming

- One ASN, **more than 300 UPDATES / second**
 - To the DFZ routers
 - To the Route Collectors
- **24/7** for half of August plus June plus plus
 - Today: a modest 8+/second
- Personal ASN
 - Better configured?
 - More filtered? (**RFD** much?)
 - Accurate contact info?
- **Forcing dietary preferences onto others?**



Global Warming



Yesterday (the day before today, 24)

- Out of region ASNs:

Region	Assigned	O-o-r
RIPENCC	39336	1731
APNIC	29852	206
ARIN	32717	49
LACNIC	13551	1
AFRINIC	2456	0



- RIPENCC
 - deregistered the ‘spamhaus romance story’ ASN
 - registered an ASN located somewhere in Canada on the right



Better connected, better operated

- Better operated, see previous slide.
- What does better connected mean?
 - Short **AS_PATH**?
 - Lots of peer ASNs?
- Better connected than?
 - Vodafone? KPN?
- Random info: dormant companies doing business (registering resources) is tax evasion

Dietary facts

- If somebody thinks they can't break the Internet with their toys, doesn't mean others can't do it
- Some large providers still do not filter all connections
- Some (e.g. DE-CIX) “avoid” these networks



Incomplete/fake whois data

- Contact info in the DB is for **operational purposes**
 - Not for sending postcards
 - Phones are the OOB for “I can’t reach your mail server” or other emergency situations
- **‘I don’t want my contacts in the DB’
== ‘I don’t need unique number resources’**
- Fake geofeed:, useless RFC 8805
 - From AQ to KP
 - Alphabet soup: one ASN, 250+ /48s





Curious case of LIR with N/A

- **Details are not editable by the mnt-by:** for organisation: objects belonging to LIRs
 - org-name:
 - address:
 - phone:
- RIPE NCC approved/endorsed this
 - Anonymous registry 101
 - Can I haz that too pls?



RIPE DBaaB (Database as a Blog)

- I don't like global warming, and I had an ice cream
 - What is the appropriate way to signal this?
 - In **BGP**? (communities, morse code, etc?)
 - In **whois**? (remarks: of ASN/inet/route obj?)
- poem: objects exist, d'oh
 - **Why not use them then?**



XSS & SQLi & other html

- Should it be mandatory (or at least recommended) to have one attached to your RIPE DB objects? Just in case.
 - 8 aut-num:
 - 2 domain:
 - 4 inet6num:
 - 5 inetnum:
 - 2 route6:
 - 1 route:
 - **0 poem: !!1**

Trends

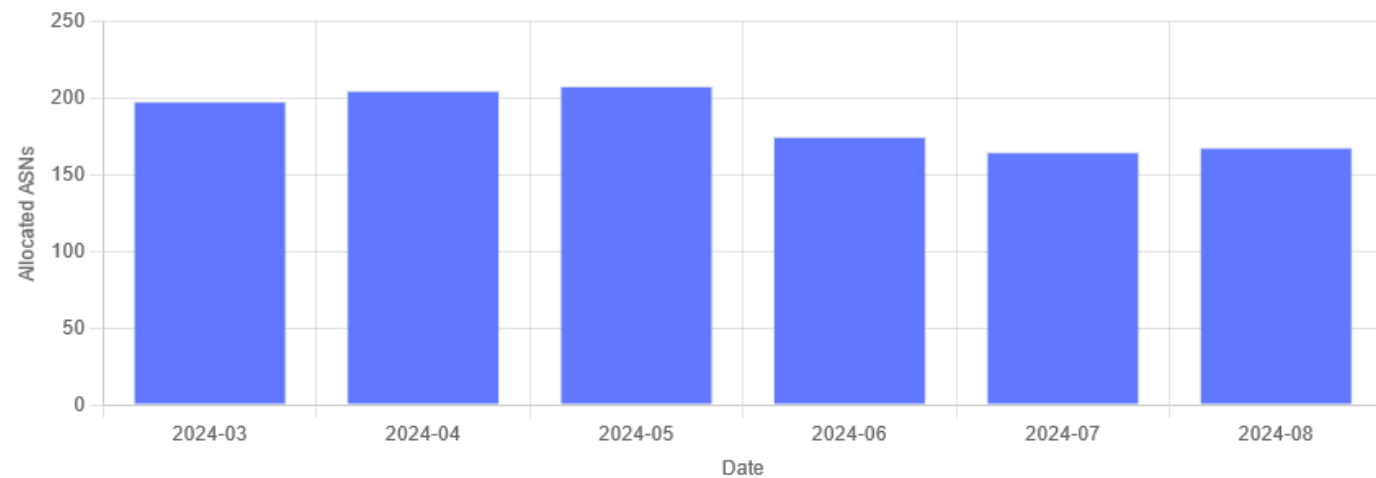
- AS-SETs
- Offensive text
- How often does this happen with non-hobby-non-personal networks?
- The DB is open by design, not a security issue
 - Trust based access (registering resources = trusted person)
 - Should this change?



More Trends

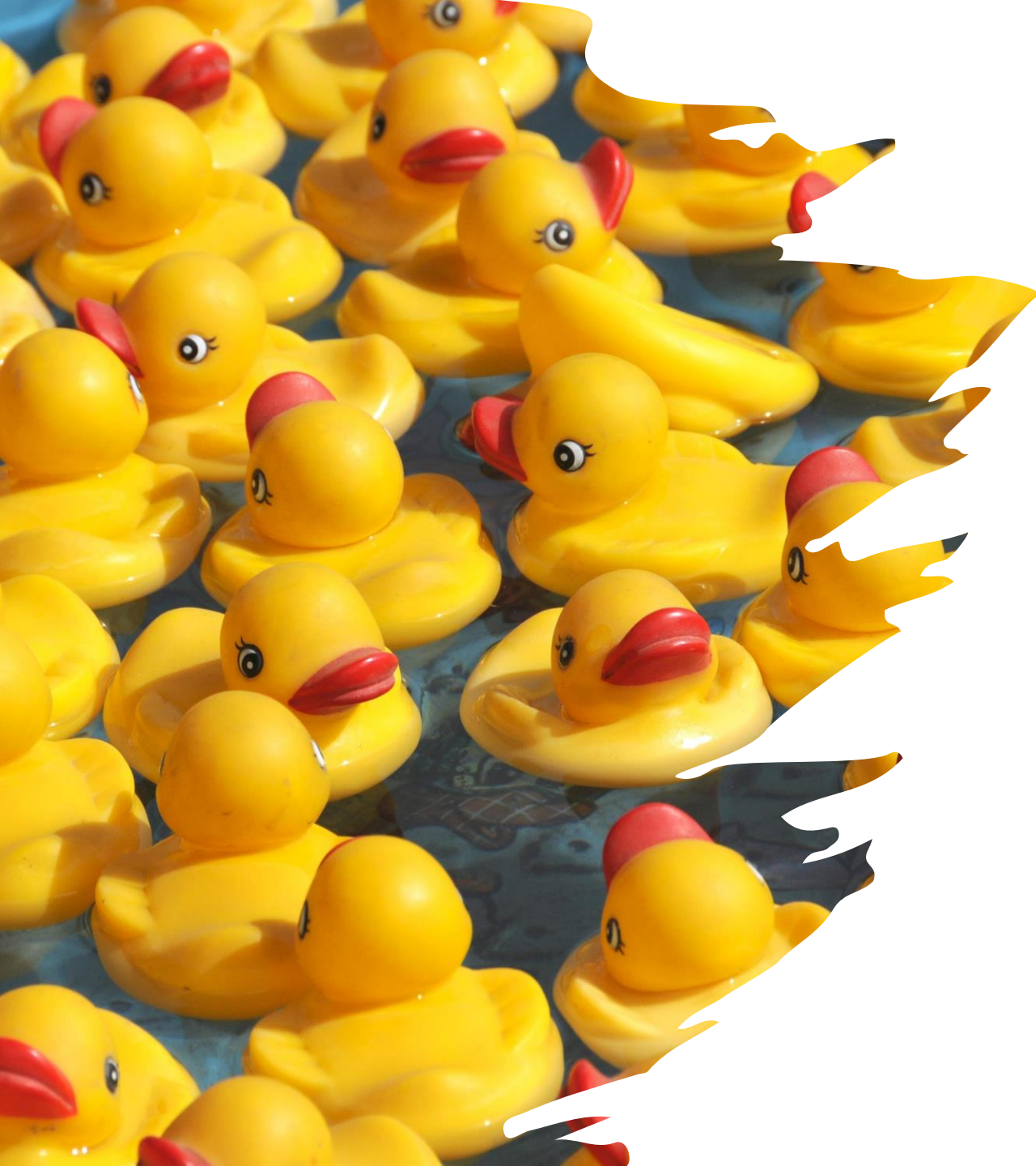
Allocations for the Last Six Months

Number of ASNs allocated by RIPE NCC to network operators in the last six months.



Charts last updated 2024-09-01
Based on RIPE NCC data published 2024-08-31

RIPE NCC



Virtual ASNs

- Personal is not so personal
- Toy ASN would not adequately describe
- Let's keep ASNs as ASNs
 - just some numbers that represent networks
 - in a serious way
 - can do != must do
 - no double standards
- And **manage the abuse** generated by some
 - so that DB changes don't need to be moderated

Thank you!