Birdy and the Snake

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What?

- Twitter account that show current internet BGP table size
- Separate IPv4 and IPv6 accounts
- Each account tweets four times a day
- Anyone who's interested can follow
- https://twitter.com/bgp4_table
- https://twitter.com/bgp6_table

Why?

- Practice with Python
- Learn how to build something from scratch
- Learn more about the integration of different systems I use
- For fun!

Plan of Action

- Find a good BGP daemon
- Find some peers
- Write software to get interesting information from daemon
- Learn how to share this information via twitter
- More features later?

Which BGP daemon?

Quagga

- Zebra fork
- Prior experience running BGP on servers with routers
- Unfortunately did not work
- Server at the time was a VPS
- Quagga required a change in kernel that host was not willing to make

- Works on VPS - No changes required
- Separate IPv4 and IPv6 daemons
- Very lightweight
- Great policy language
- No API :(

Finding peers - requirements

- Server has native IPv4 and IPv6 addresses, so need peers with both v4 and v6 tables
- BGP multihop
- I'll be running private AS number
- I only want the table, I am not sending any prefixes and not forwarding based on any prefixes received.

First peer

- Emailed Nat Morris - @natmorris
- Runs ESGOB with own public AS#
- Set up multihop IPv4 and IPv6 sessions

Need data

- BIRD has no API
- CLI client through birdc and bird6c
- You can pipe arguments through CLI
- Parse output from above via regex
- Store that data somewhere

More peers!

- Shout out via twitter
- Asked on continent-specific mailing groups.
- Peers now include: YELP, SEACOM, FLUENCY, ADD MORE WITH LOGOS!

More ram!

- Original VPS only had 1GB RAM total
- IPv4 currently using 722MB and IPv6 using 60MB
- Still need RAM for rest of the OS
- More twitter shoutouts
- Daemons now run on VPS provided by Kim Pedersen who runs https://www.packet-forwarding.net/

Share data

- Run daemon?
- If only sending out data now and then, why?
- Just set up a cron job
- Read data, format it, send it to twitter API

More features?

- People like graphs
- Learn Matplotlib
- Looks pretty cool
- Allows you to see weekly changes at a glance
- All this through a cronjob
- Add monthly, 6 month, and annual graphs

What next?

- Working on website
- But need to learn more html, css, javascript, php!
- Frontend stuff takes longer and is more boring :(

Questions?