OpenBMP Project Overview

GROW WG / IETF/Chicago

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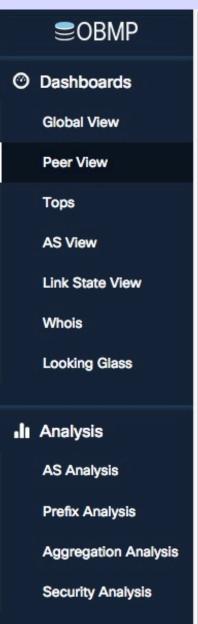**Tim Evens <tievens@cisco.com>**
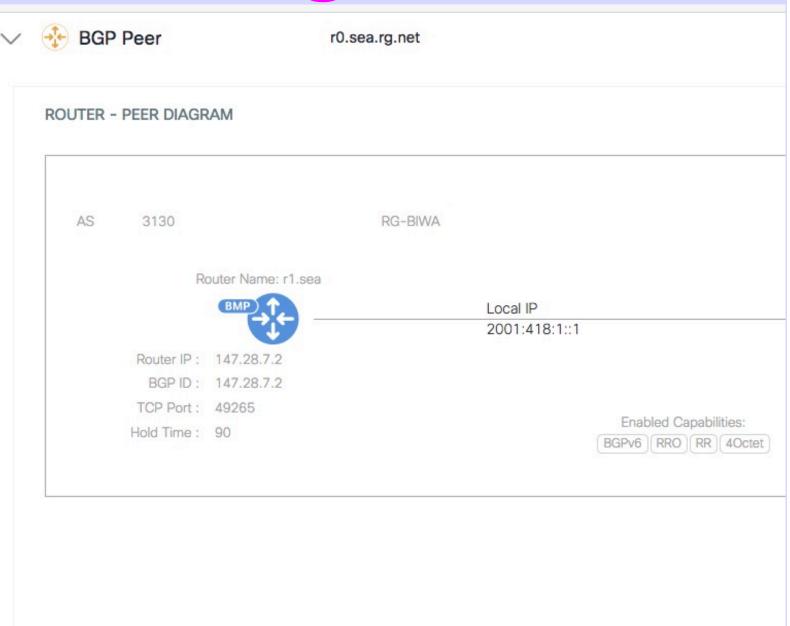
In a Nutshell

- Think Route Views / RIS for BMP

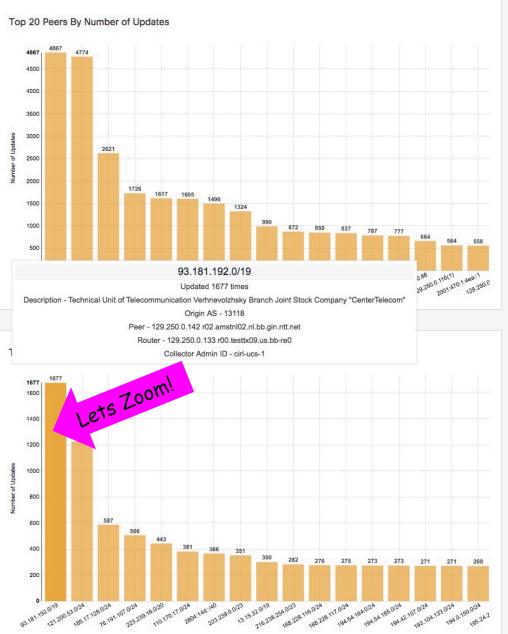- Add a web-based sexy GUI
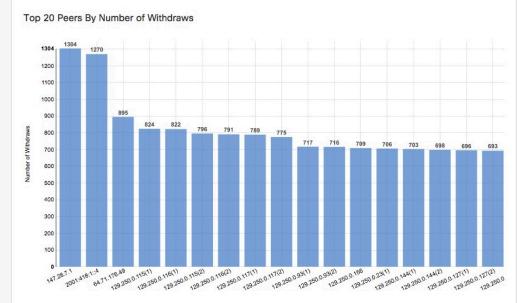
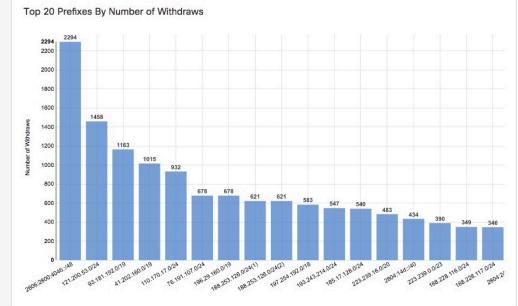- With very cool analysis tools

Just Some Examples

A Tasting Menu

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Noisiest Prefixes

Top 20 Peers By Number of Updates

Top 20 Peers By Number of Withdraws

93.181.192.0/19
Updated 1677 times
Description - Technical Unit of Telecommunication Verhnevolzhsky Branch Joint Stock Company "CenterTelecom"
Origin AS - 13118
Peer - 129.250.0.142 r02.amstnl02.nl.bb.gin.ntt.net
Router - 129.250.0.133 r00.testtx09.us.bb-re0
Collector Admin ID - cirl-ucs-1

Lets Zoom!

Top 20 Prefixes By Number of Withdraws

History of That Prefix

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A Peering Link

And, Of Course, the Mandatory World Map ☺

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IOS XE 3.12.0/15.4.2 (or greater)

```
router bgp <nnnn>
 bmp server 1
  address 10.20.254.245 port-number 5000
  description "BMP Server - primary"
  initial-delay 10
  failure-retry-delay 120
  flapping-delay 120
  stats-reporting-period 300
  update-source GigabitEthernet1
  activate
 exit-bmp-server-mode
 !
 bmp buffer-size 100
 !
 neighbor <ip/group> bmp-activate all
 neighbor ...
```

IOS XR 5.2.2 (or greater)

```
router bgp <nnnn>
 !
 neighbor <d.d.d.d>
  bmp-activate server 1
  ...
   !
 !
!
bmp server 1
 host 10.20.254.245 port 5000
 description BMP Server - primary
 update-source GigabitEthernet0/0/0/0
 initial-delay 60
 initial-refresh delay 60 spread {number of peers * 2}
 stats-reporting-period 300
```

JunOS 13.3 (or greater)

```
routing-options {
    bmp {
        station BMPServer1 {
            initiation-message "Development/LAB";
            local-address 172.20.160.24;
            connection-mode active;
            monitor enable;
            route-monitoring {
                pre-policy;
                post-policy;
            }
            station-address 10.20.254.245;
            station-port 5000;
            statistics-timeout 300;
        }
    }
}
```

mrt2bmp

- Converts mrt data, such as Route Views and RIS to OpenBMP

- Yes, it only gives the best path view

- But it makes backward compatibility possible.

- You can inject traditional dumps into openBMP

- For longitudinal analysis it may be good to have the old data parsable using the same tools

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So why are we here?

The Glass is Dirty
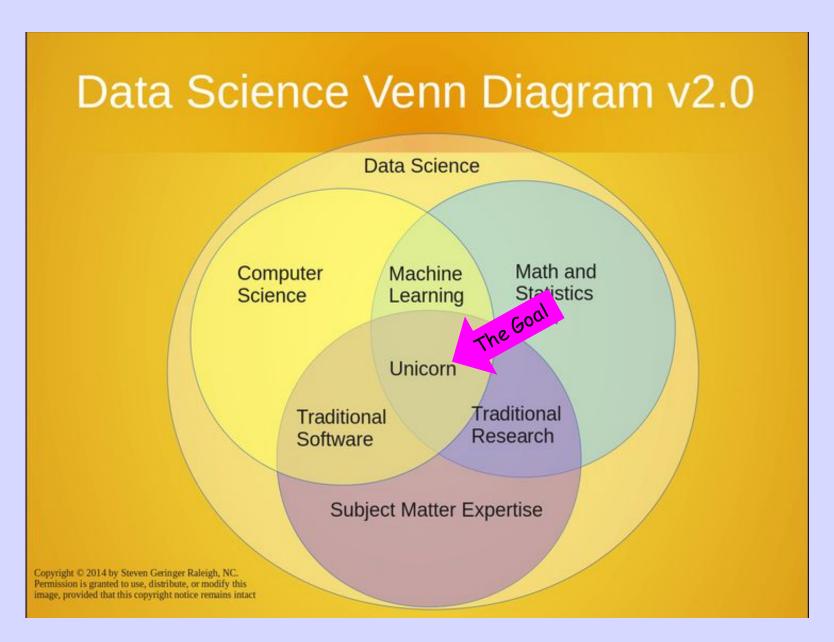

Router

Operator &
Researcher

Feedback Please

Play with Demo in Bar BoF

Can we save a lot of future pain by doing the equivalent of draft-ymbk-grow-bgp-collector-communities BEFORE collection starts to scale

Are current BMP specs and implementations what we want?

We Want Moar Dataz!

Data Science Venn Diagram v2.0

Data Science

Computer Science

Machine Learning

Math and Statistics

The Goal

Unicorn

Traditional Software

Traditional Research

Subject Matter Expertise

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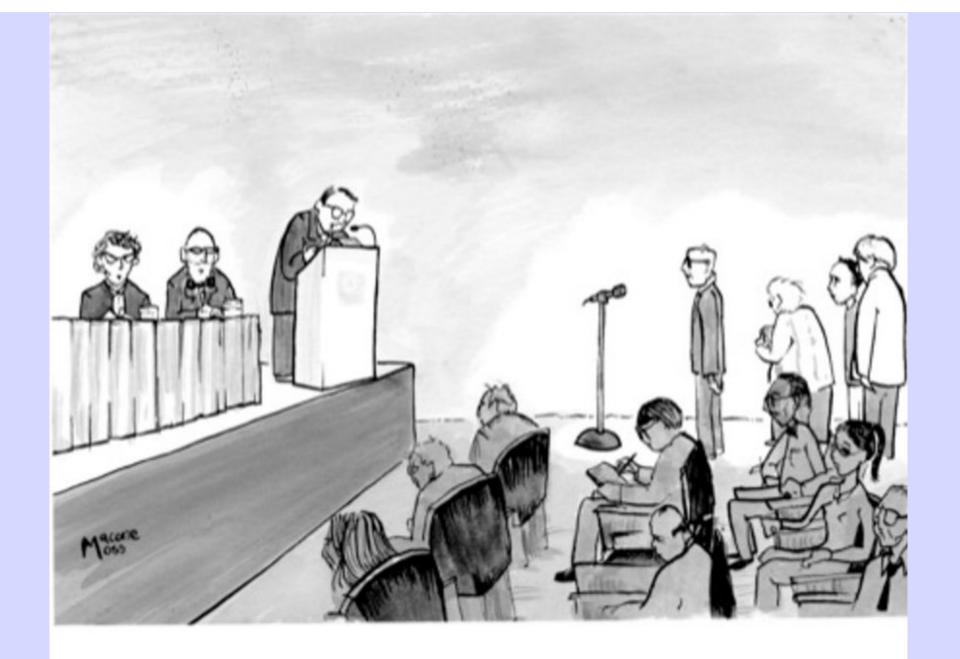image, provided that this copyright notice remains intact

Some Referneces

Project Overview

https://openbmp.org/

Running your own service from RouteViews data:

https://github.com/OpenBMP/openbmp/blob/master/docs/GETTING_STARTED.md

"We'd now like to open the floor to shorter speeches disguised as questions."