OpenBMP
Project Overview

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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
Noisiest Prefixes

Top 20 Peers By Number of Updates

Top 20 Peers By Number of Withdraws

Top 20 Prefixes By Number of Withdraws

Let's Zoom!
The document contains a table with columns for Router Name, NH, AS Path, Peer ASN, MED, Communities, and Last Modified. The table details various network prefixes and their associated information. The document also features notes about the history of prefixes, labeled as "Every Change" and "And What Changed."
A Peering Link
And, Of Course, the Mandatory World Map 😊
router bgp <n1n2n3n4>
  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 ...
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)

```plaintext
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
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

Computer Science  
Machine Learning  
Math and Statistics

Traditional Software  
Unicorn  
Traditional Research

Subject Matter Expertise

The Goal

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Some References

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.”