NANOG 70 Hackathon

RUNNERS-UP PRESENTATIONS

- OPENBMP CONTROLLER
- IXMON
OPENBMP CONTROLLER

- Save TCAM space!
- Create off-box programmable route policies!
- Implement custom path selection algorithms!
OpenBMP Hackathon Group!

- Akshat Sharma : Cisco
- Mike Korshunov: Cisco
- Garegin Grigoryan : Clarkson University
- Anup Javdekar: Google
- Palak Mehta: Facebook
- Rupesh Patro : Microsoft
- Yaoqing Liu: Clarkson University
RPL configured to drop ALL routes in RIB/FIB learnt via BGP for particular Neighbor.

BGP in-RIB synced to openBMP server.

Routes learnt from rtr2 over iBGP session.
OpenBMP

Adj-in
RIB

adj-in
rib

Adj-in RIB Post Policy

User defined Route policies: Python/YAML

Redis

adj-in
rib

Redis-CLI/API to access each RIB

Local RIB

User Defined Path selection algorithm: Python/YAML

Local RIB

Router Client

Adj-out
RIB

Redistribute application/static

• RIB API (Cisco Service Layer API)
• Static Routes API
Contributions Welcome!

https://github.com/akshshar/openbmp-controller
Team

- Sumeet
- Paul
- Marc
- Matt
- Chris
- Me
What did we want to do?

● Test connectivity to members on an IX
● Find IX locations where ASN’s have equipment but do not have a neighbor
Testing Connectivity to others in the IX
Testing Connectivity to others in the IX

Things that are working:

- Source a ping from a Juniper router
- Putting the result into a database

Things to do:

- Build an interface for reviewing ping output
- Automatic querying of PeeringDB to find other members on the exchange
- Add handling for other vendors
Find IX locations where ASN’s have equipment but do not have a neighbor
Find IX locations where ASN’s have equipment but do not have a neighbor

Things that are working:

● Query an Arista and Juniper router to receive neighbors
● Find ASN peering locations from PeeringDB
● Showing locations without neighbors

Things to do:

● Maybe make a web app
Where to next?

1. Code clean-up
2. Complete our to-do’s
3. ???????
4. Profit!
What can you do?

Fork or Join the group:
- github.com/Tbl9/ixmon