Influence of BGP Community Attributes on Routing and Internet Traffic

RIPE 77

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Monday 15th October, 2018

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BGP Communities Introduction

A BGP Community is an integer and can optimize routes.

For example:

- Action
    - Sets local preference to 90
- Informational
    - Route learned from Germany

Idea:

- Communities set attributes and influence route
- Communities describe route finer than AS-Path
- Stability of Communities ⇔ Stability of route?

Example: Community Flapping

- A single prefix with same Next-Hop and AS-Path
- Every line in each row is a BGP Update
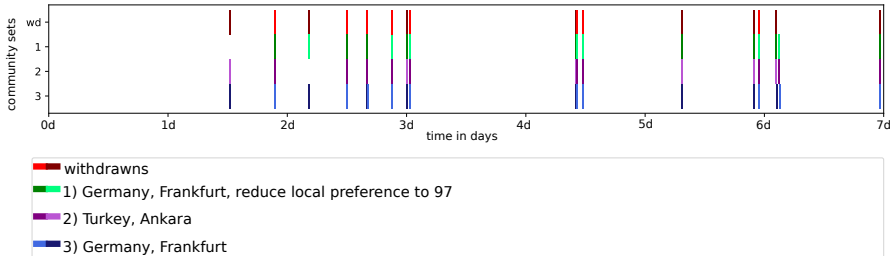
Conclusion

Open challenges:

- How Communities are used/intended and their wider effect on the global routing state
- How to detect a stable route through Communities

Speak to me!

(Also: *RIPE Networking App* or *fabian.raab@tum.de*)