

Routing in the data center

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presentation of third party material

Outline

- Routing Design for Large Scale Data Centers: BGP is a better IGP!
 - Petr Lapukhov, Microsoft et al, North American Network Operators' Group - NANOG 55, June 2012. Online: <https://www.nanog.org/meetings/abstract?id=1942>
- BrainSlug: A BGP-Only SDN Controller for Large-Scale Data-Centers
 - Petr Lapukhov, Microsoft et al, North American Network Operators' Group - NANOG 58, June 2013. Online: <https://www.nanog.org/meetings/abstract?id=2137>
- Remember:
 - RFC7938 Use of BGP for Routing in Large-Scale Data Centers. P. Lapukhov, A. Premji, J. Mitchell, Ed.. August 2016. (Status: INFORMATIONAL) (DOI: 10.17487/RFC7938)

Routing In Fat Trees (rift)

- Internet draft:
 - Online: <https://tools.ietf.org/html/draft-ietf-rift-rift-03>
- Implementations
 - Routing In Fat Trees (RIFT) implementation in Python.
 - Online: <https://github.com/brunorijsman/rift-python>
 - Juniper implementation.
 - Online: <https://www.juniper.net/us/en/dm/free-rift-trial/>

Link State Vector Routing (lsvr)

- Internet drafts:
 - Usage and Applicability of Link State Vector Routing in Data Centers.
 - Online: <https://tools.ietf.org/html/draft-ietf-lsvr-applicability-01>
 - Shortest Path Routing Extensions for BGP Protocol
 - Online: <https://tools.ietf.org/html/draft-ietf-lsvr-bgp-spf-04>

Hands on

- https://github.com/oreillymedia/bgp_in_the_data_center/
- <https://github.com/ddutt/evpn-in-the-datacenter>
- <https://github.com/CumulusNetworks/cldemo-evpn>