
To peer or not to peer? Business case for peering

Arturo Servin

To peer or not peer, that is ...



[Image by Mike Derderian](#)

Benefits of Peering

- For users:
 - Lower latency
 - Higher reliability
 - Better performance
- For network operators:
 - Lower costs
 - Higher reliability
 - More predictable routing
 - Better performance for customers
 - No third parties involved
 - Mutually beneficial relationship with partner

The business case for peering

- How to convince your CFO?
- Forget about BGP, routing, latency improvements, etc. Those are important but first:
- Do a business case with the economical benefits to peer



Costs to consider

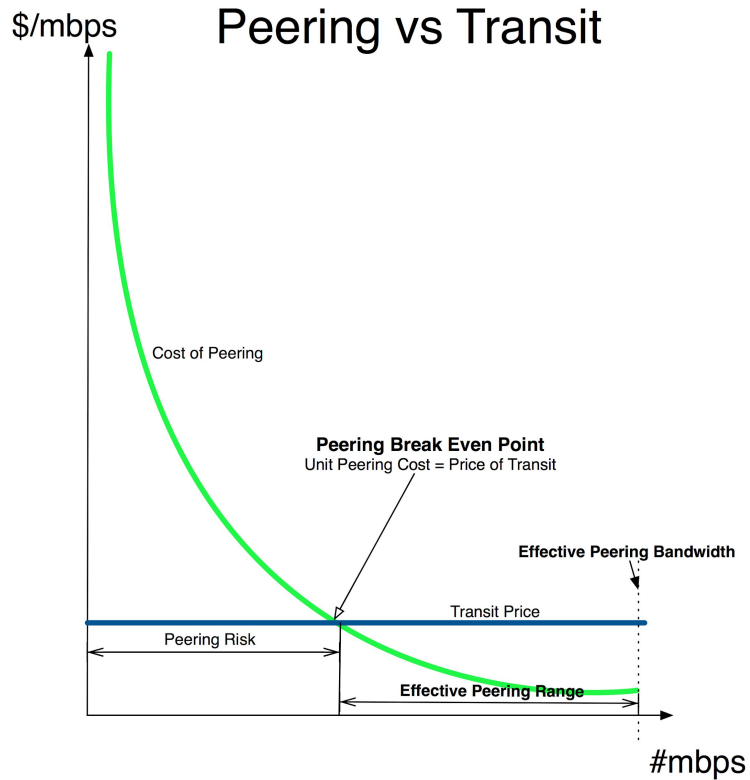
- Peering
 - Transport to colo facility or IXP
 - Colo facilities fee
 - IXP fee
 - Hardware (router, port, cards)
- Transit
 - Cost per use, considered
 - Average
 - P95
 - Cost Mbit/USD
 - Committed spend

Costs comparison

Transport to peering point	Fixed to specific capacity
Colocation	Fixed
Hardware	Fixed
X-connect	Fixed
IXP fee	Fixed

Transit	Based on use
----------------	--------------

Peering vs. Transit cost comparison



Source: [Dr Peering](#)

Business case to peer in IXP

- Transit
 - Cost of transit 5 USD per Mbit per month
- Peering (10G)
 - Local transport: 2,000 USD MRC (10G)
 - Colocation fee: 1,000 USD MRC
 - IX port: 800 USD per month
 - X-connect: 125 MRC
 - Equipment: 500 USD per month (router amortized at 36 months)
 - Total: 4,300 USD total per month

Peering break even

- Cost of peering at maximum efficiency
 - Cost of peering / BW
 - 4,300 / 10,000
 - = **0.43 Mbps per USD per Month**
- Break even point in BW
 - Cost of peering / Transit cost
 - (4,300 MRC) / (5 USD/Mbps/MRC)
 - = **0.86G**

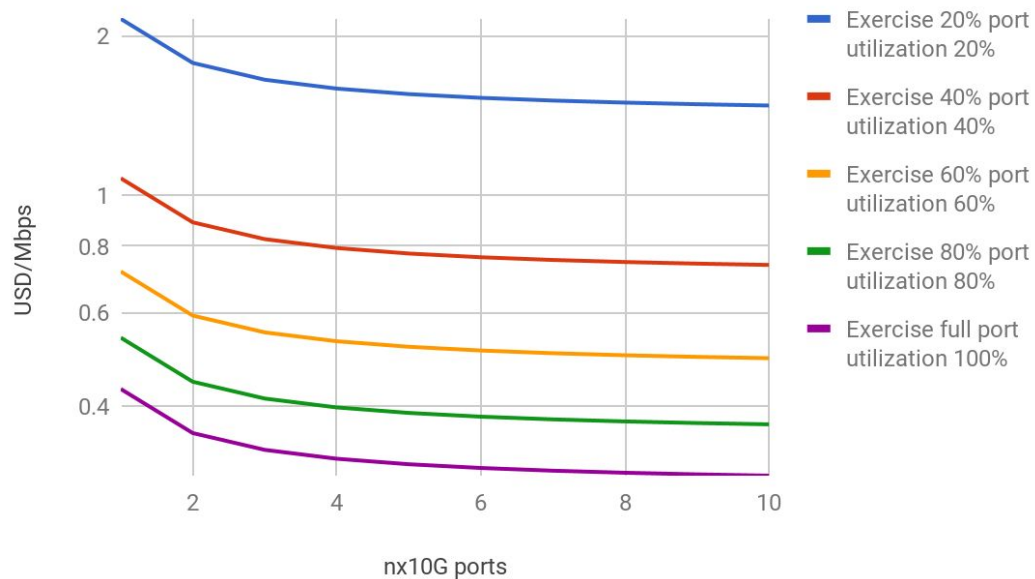
Try it yourself [here](#)

Fine-tuning model

- **PNI instead would be same case but** remove IXP port fee.
- Calculate your model for **port utilization expectation**
- **Investigate which ASNs you can reach** at the interconnection point and what would the traffic levels
- Other costs that you would save or increases in revenue by peering
- **Sunk cost of investments** already made, i.e equipment, transport investments
- Forecast traffic growth

Fine-tuning the model

Cost considering utilization and hardware sunk costs



Try it yourself [here](#)

Conclusions

- Peering is a business decision executed with technology
- Peering could bring savings in interconnection costs and improve the user experience
- Where to peer and how to peer will depend on your own needs and traffic patterns



[Video by niversa](#)

**Thank you and happy
peering**
