

# SDX Investigations

Inder Monga

Chin Guok

NSF panel on Software-Defined Exchanges

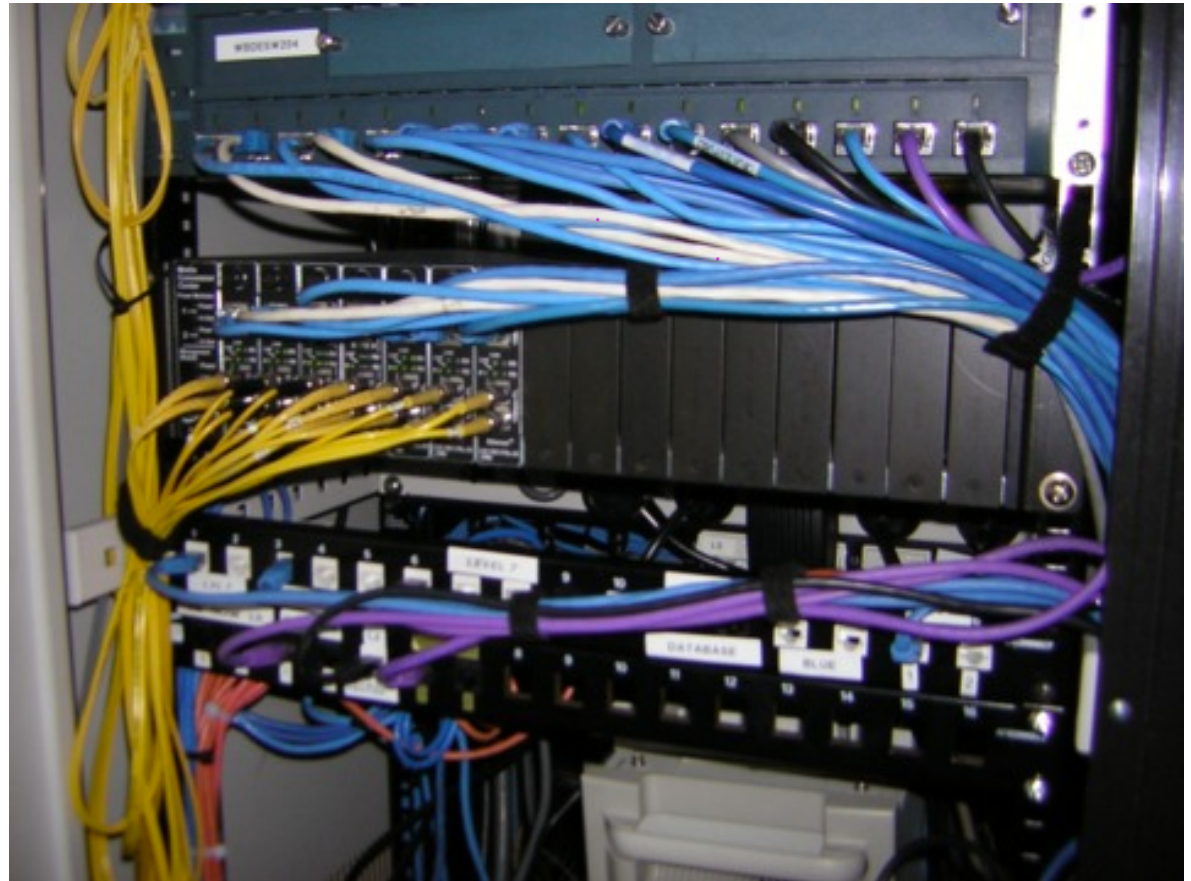
June 5<sup>th</sup>, 6<sup>th</sup>



# History Recap on Exchanges

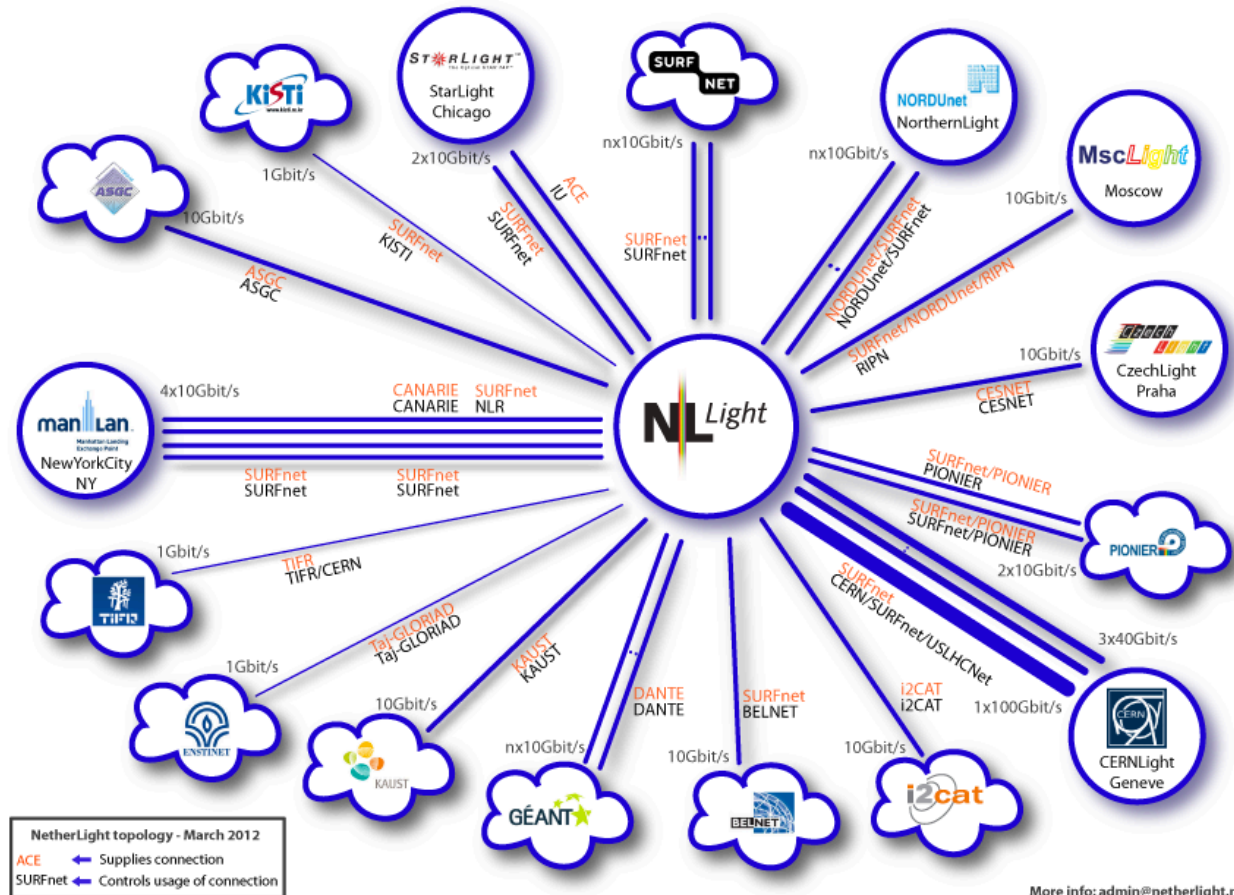


# History Recap on Exchanges



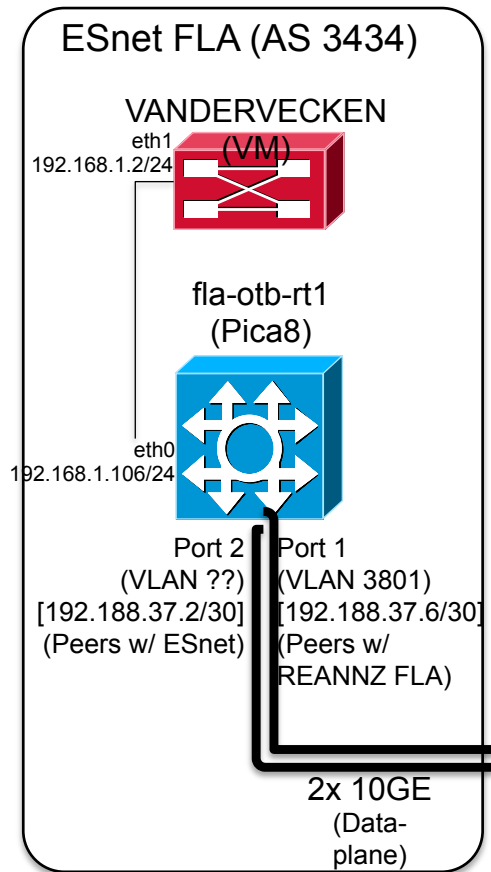
<http://www.linuxjournal.com/node/8073/print>

# History Recap on Exchanges

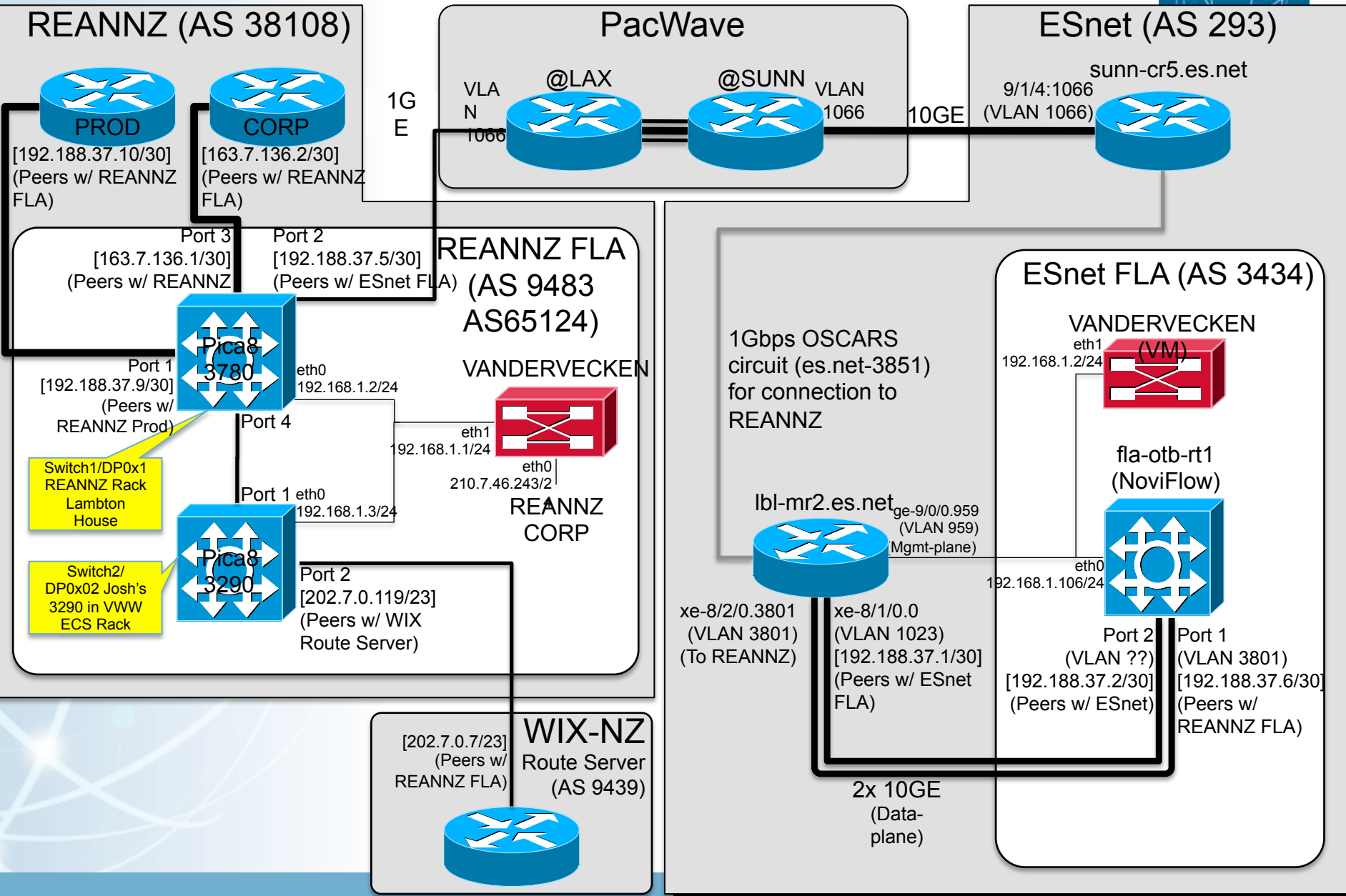


More info: [admin@netherlight.net](mailto:admin@netherlight.net)

# New kind of exchange?



# TREEHOUSE (since March 2013)



# Other folks



- Network nodes now at VUW & CSIRO (Australia), being worked on in Houston and South Africa actively



The most important single central fact about a free market is

***Milton Friedman***



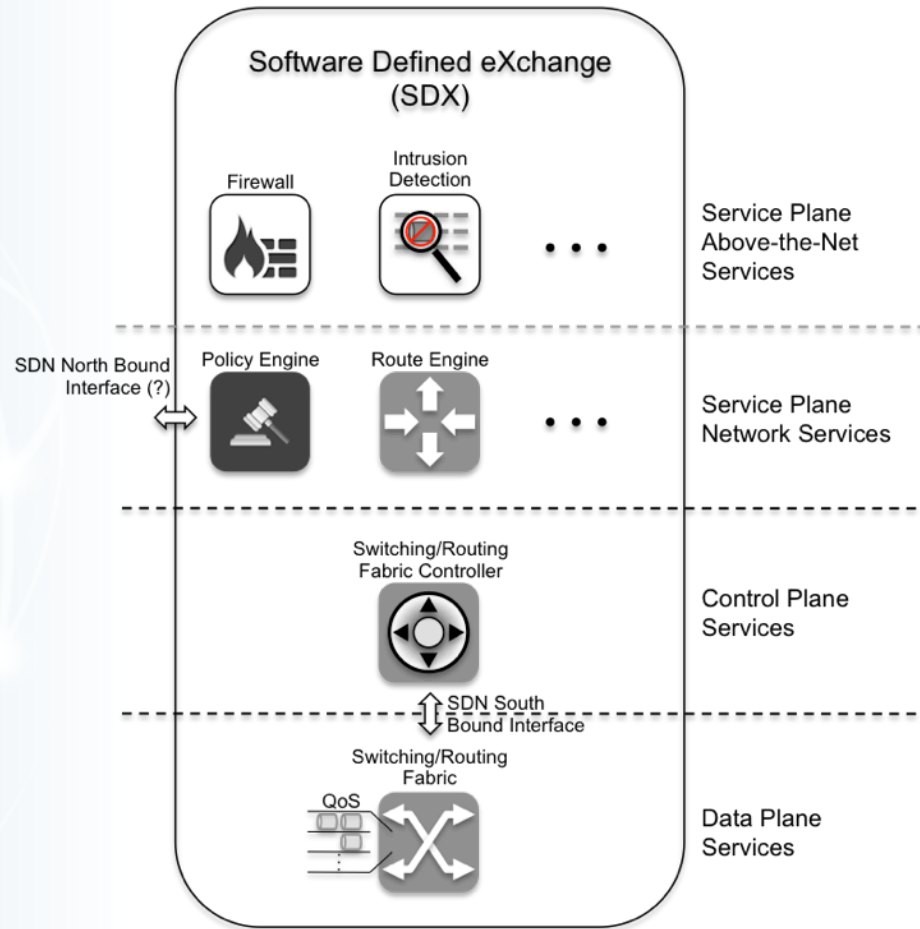


# What does SDX exchange?

Application data?      IP Packets?      Virtual topologies?      ....

- While SDX's can be defined broadly (everything under the sun!)
- It merits to define SDX within this group
- At the base level, SDX is a more intelligent IP exchange
- At the sophisticated level, SDX is a virtualized, application-specific exchange
- Building the right framework for an exchange will be critical to support all definitions
  - Policy-free?

# Current vision on SDX



# Why the glacial growth?



- Software is ready – multi-table compliant (OF 1.3)
- Hardware missing so far – at the ends of the spectrum
  - Top of Rack switch (Pica8)
  - Top of the line Router (Juniper/Brocade)

# What Problems Are We Solving and How?



- Brainstorm today