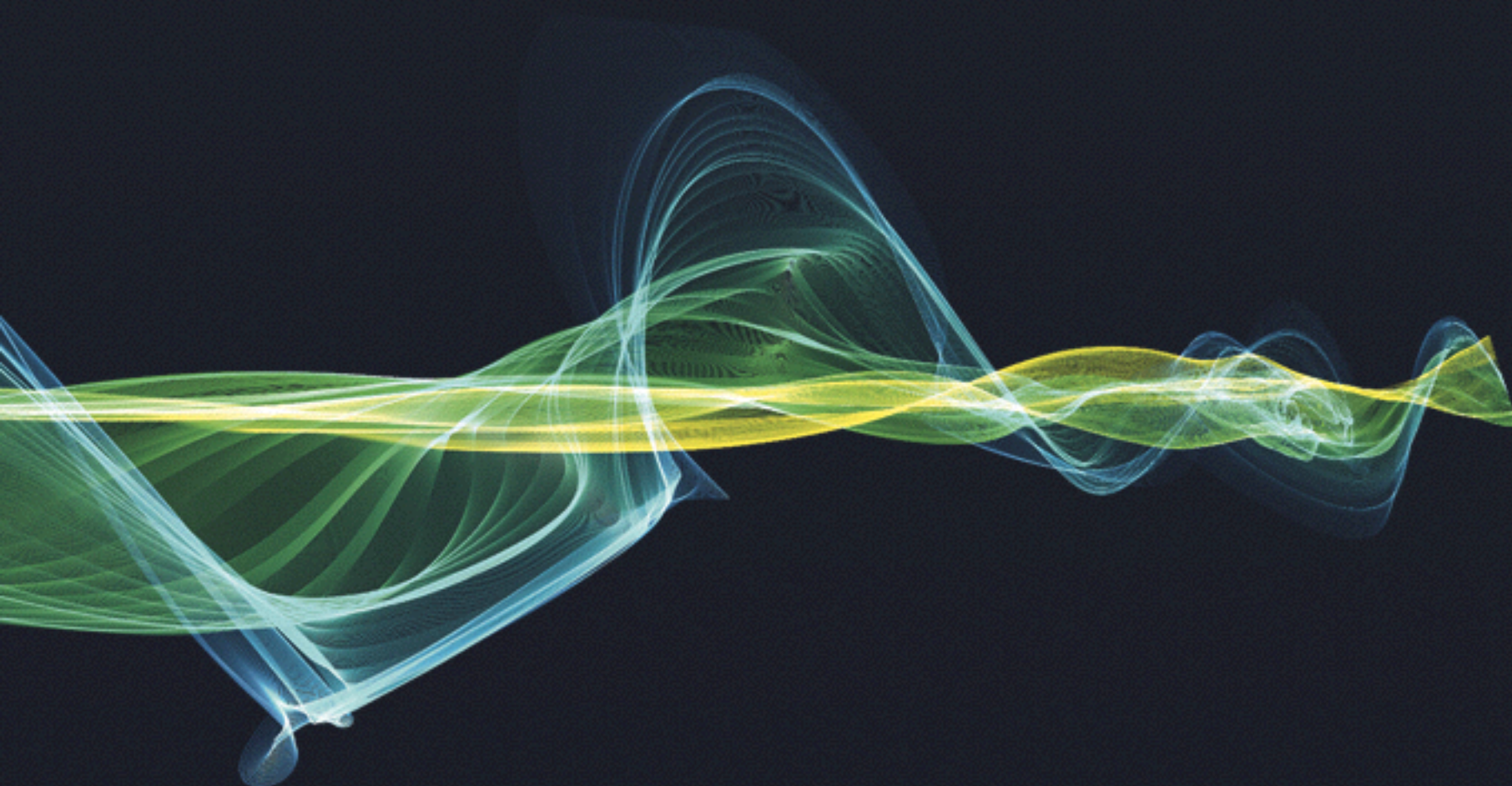


IP-Fabrics

Next Gen Networks

Tom Eichhorn
Infrastructure Archmage

DENOG7



Facts

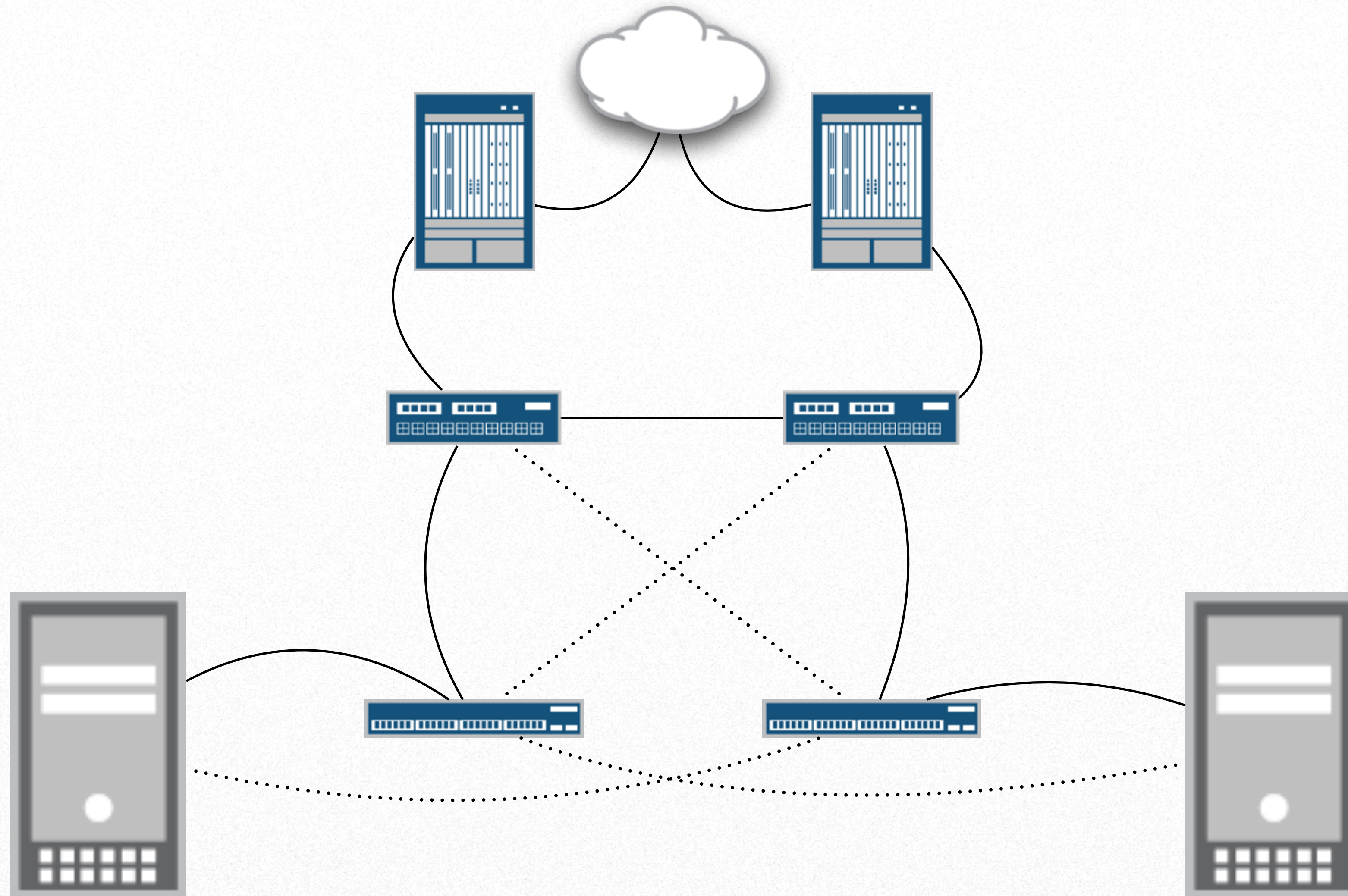
The switch



What does it do?

Drop it, forward it, replicate it.

Layer 2 - tested and EOLd



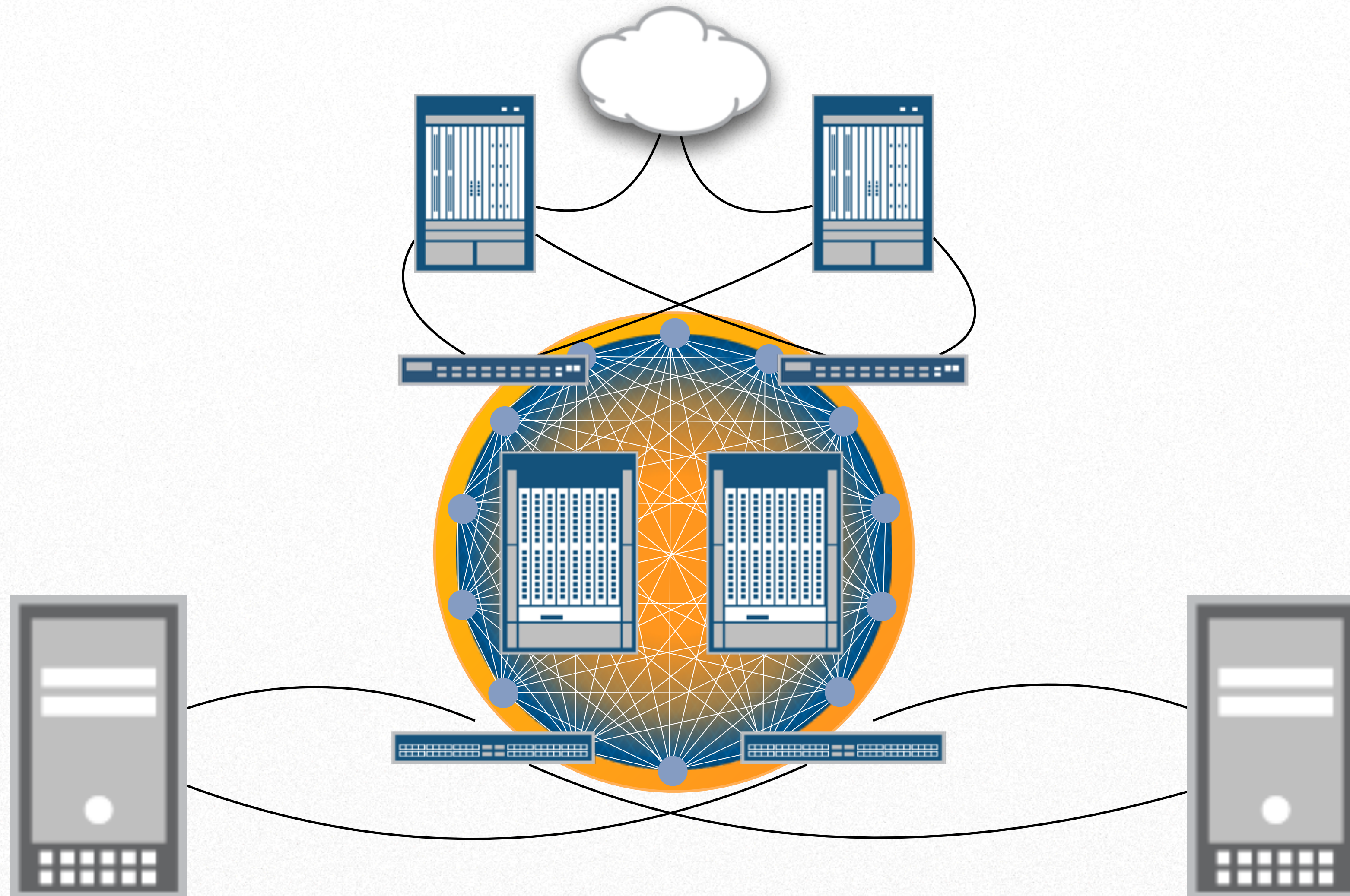
The pain

Redundancy?

Scalability?

Maintainability

Macgyver the old - proprietary fabrics



New pain

Proprietary!

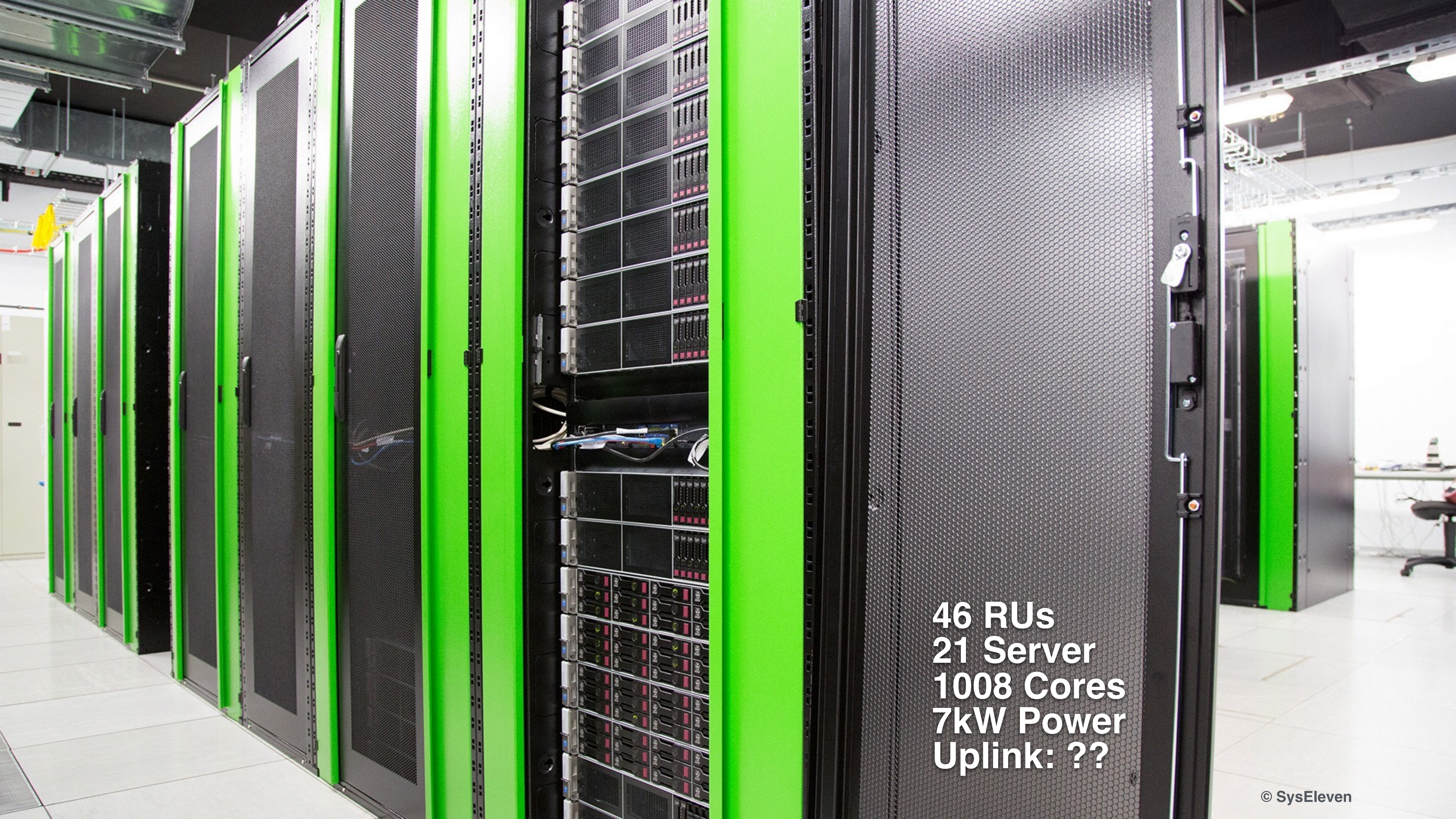
“One” Device!

Scalability?



Lucid

Dreams



46 RUs
21 Server
1008 Cores
7kW Power
Uplink: ??



The next level: IP Fabric
The next layer: IP-Fabric

“The internet itself has solved all the networking problems we have in a datacenter.”

The internet

Redundancy: ✓

Scalability: ✓

Vendor independent: ✓

Proven technology: ✓

The problem



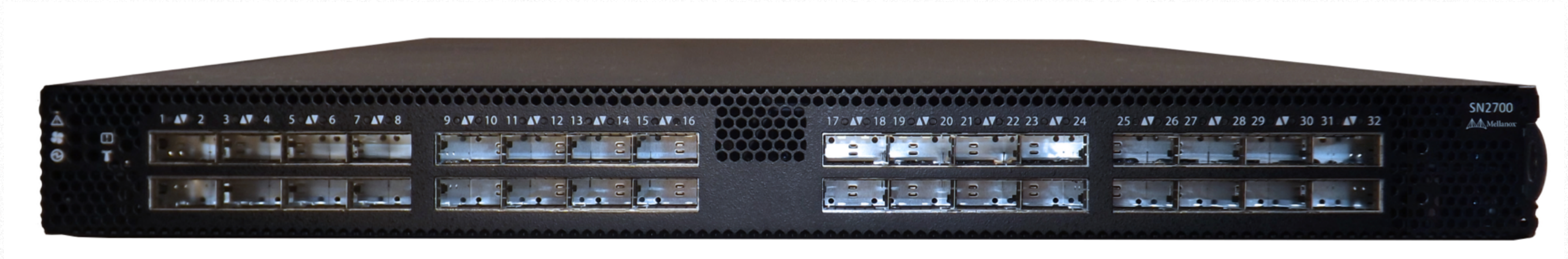


Welcome to 2015



Honey, I shrunk the router!

The router



What has happened to my L3-switch?

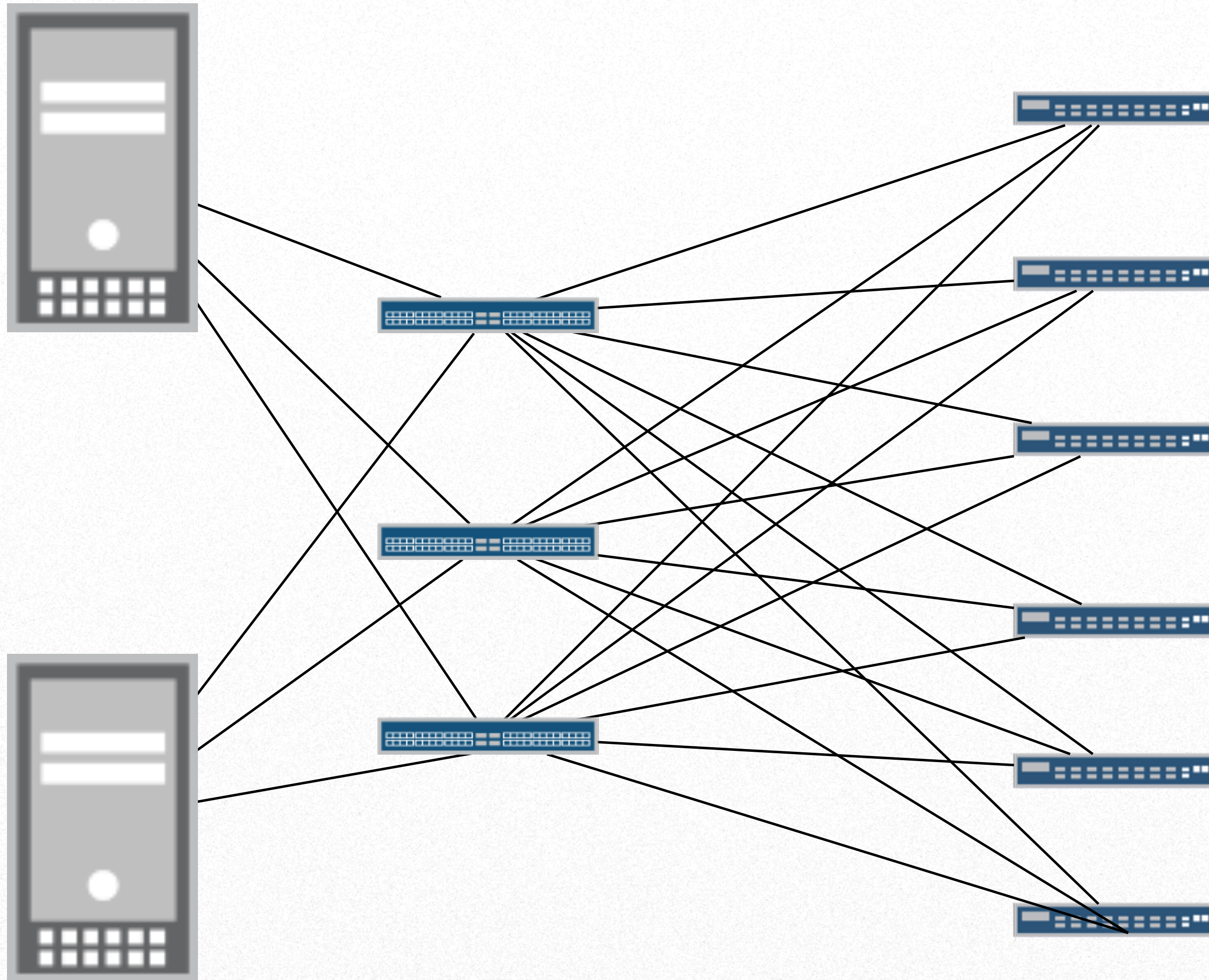
Full Layer 3 features

BGP/OSPF/ISIS - you name it.

ECMP

Lost the VLAN

Let's route!



Challenges

Understand IP.

Understand IPv6.

Understand routing & protocols.

Learn new troubleshooting techniques.

Understand your application migration path.

Explain to security that central firewalls are no longer feasible.

Q & A