

Building an IXP

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Hurricane Electric / LONAP / IXLeeds
MENOG 9, Muscat Oman
Monday 3rd October 2011

Agenda

- Before you buy a switch
- After installation, before customers
- Turn up customers!



Steal this presentation! 😊

Downloadable notes

www.menog.net

**Before you
buy a switch**



Planning

Community

Legal Structure

A close-up photograph of a fountain pen with a black barrel and a silver nib, positioned diagonally from the top right. The pen is in the process of writing a large, dark grey '@' symbol on a light-colored, slightly textured surface. The background is a soft, out-of-focus gradient of light grey and white.

Legal Entity

Commercial

Association

Define your offering

Peering LAN

**Closed User
Groups?**

**Interlink own
network?**

Transit OK?

Number Resources

Resource Management

Information to help RIPE NCC Members (LIRs) and Direct Assignment users manage Internet number resources.

IPv4 Exhaustion

With the remaining IPv4 address pool held by the Internet Assigned Numbers Authority (IANA) exhausted, what happens now?

[Read More](#)

End User Contract

No PI from last /8

Special IX v6 rules

Jumbo Frames

A large white Airbus A380-800 aircraft is shown on a runway. The aircraft is the central focus, with its two large engines and four engines visible. Ground support equipment, including a white tug and a yellow service vehicle, are positioned around the aircraft. The background shows a clear sky and some airport buildings.

> 1500/1522

Peering LAN / CUG

ISLs

Spanning Tree

MRP

Layer 2 Resilience Protocols

VPLS

EAPS

Flex Links

Trill
one day!

Port Security



'n' MACs per port

Storm Prevention

Leaky ISP Layer 2

Other Switch Features



Colocation



Independence

Support

Partnership

Collector
(BGP Router)

Debug

Monitor

Support

**After
installation**

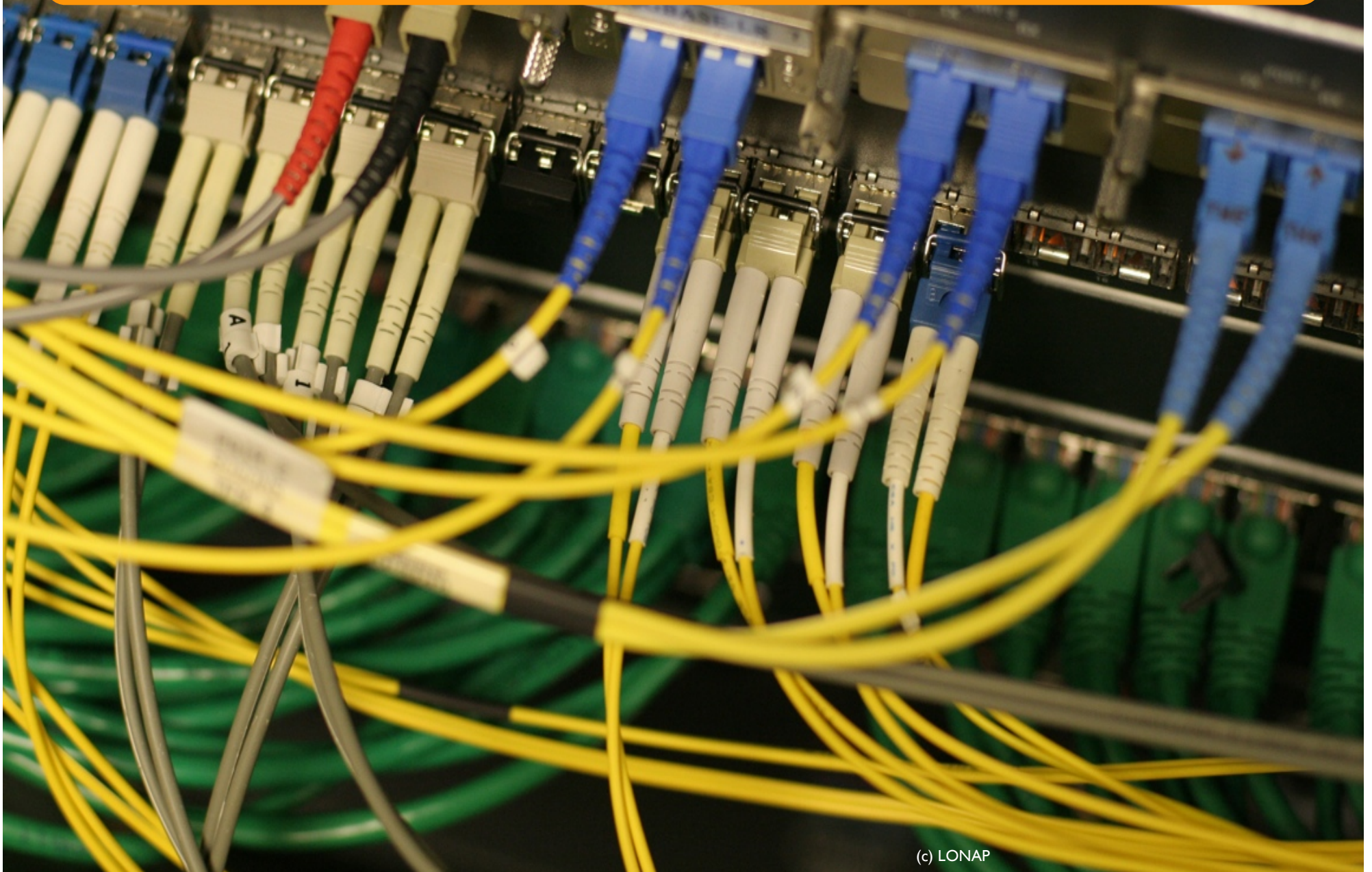
Monitoring

Availability

Performance

Ethernet OAM?

Plan for a **dense** cabling environment



SFlow

Customers

Top Peers

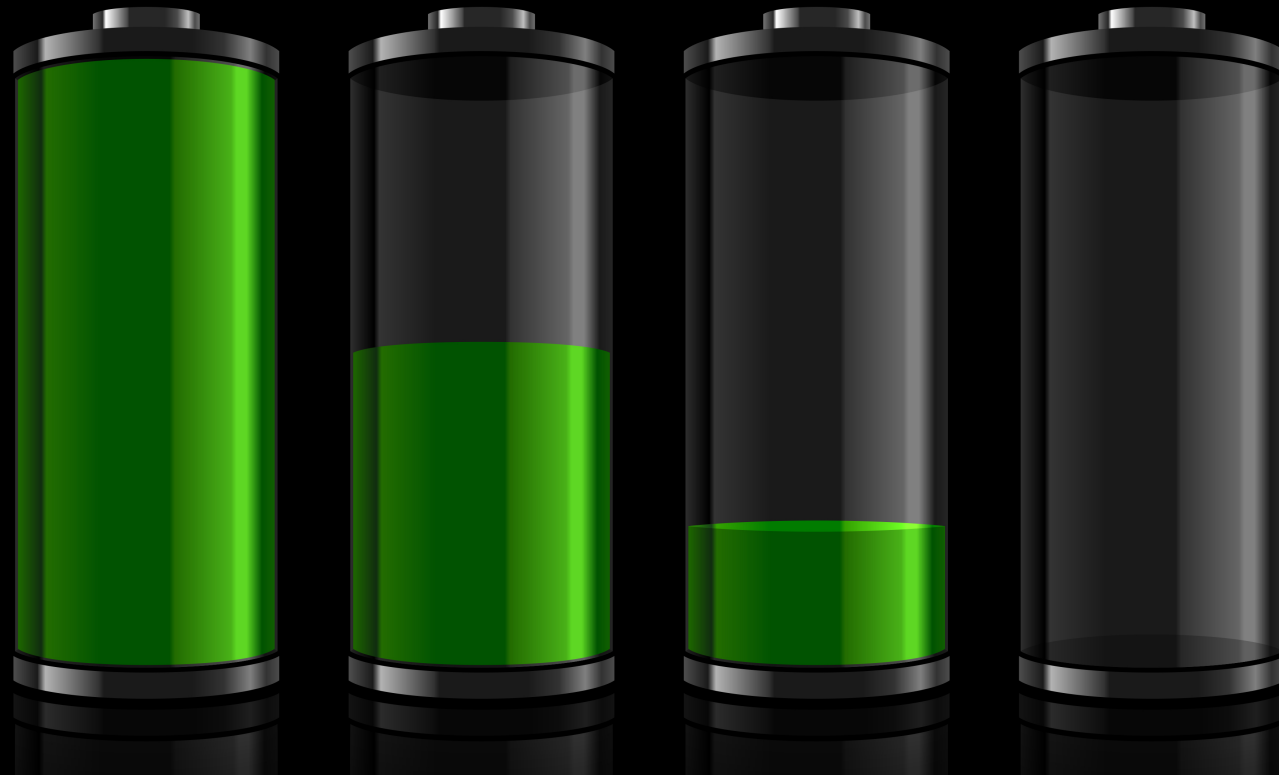
Exchange

Marketing

Resilience

Missed Ops

Service Levels



Cost to Exchange funds

Commercial v Association

Communications



Tech Support

Organisational

New Member

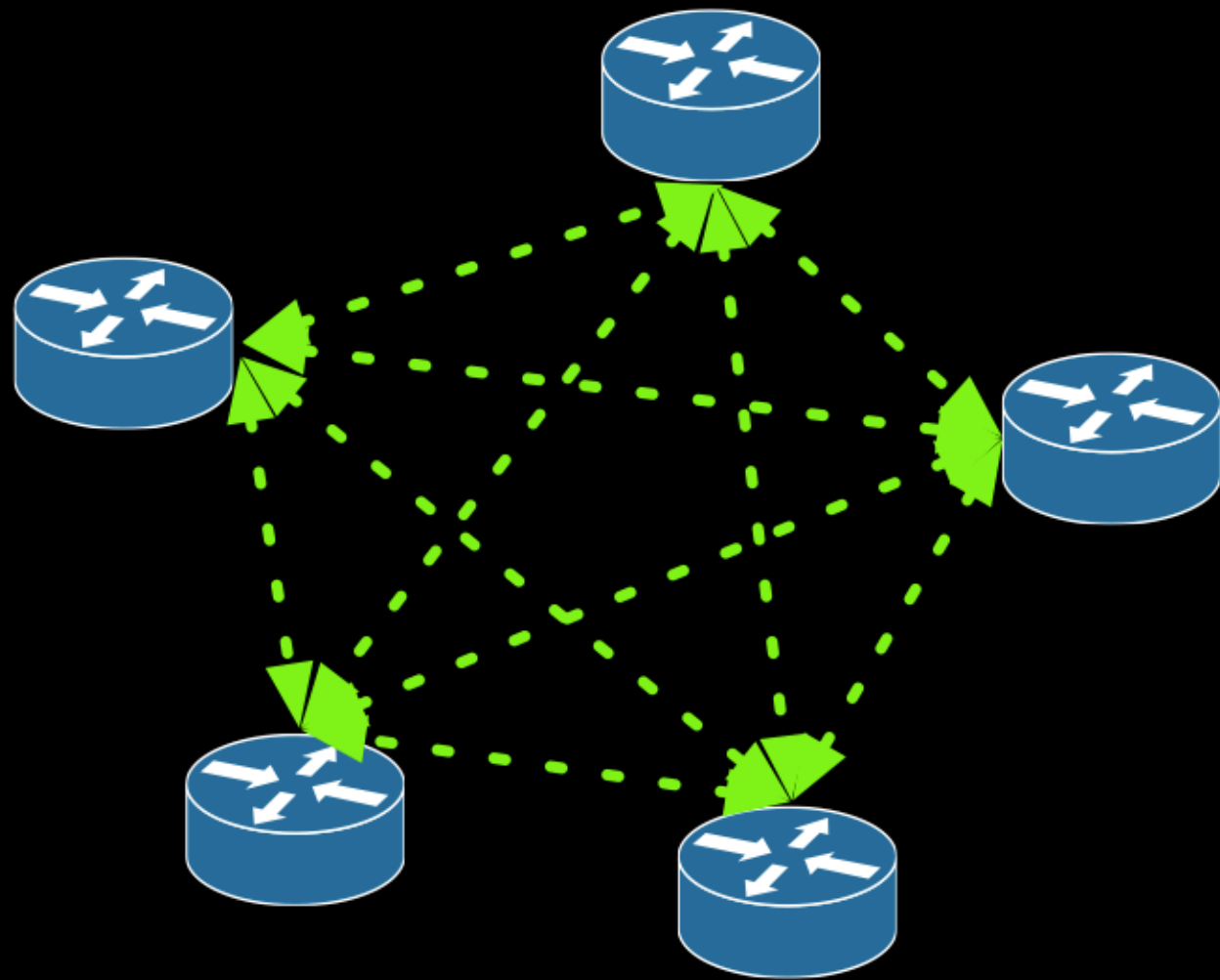
Operations

Route Servers

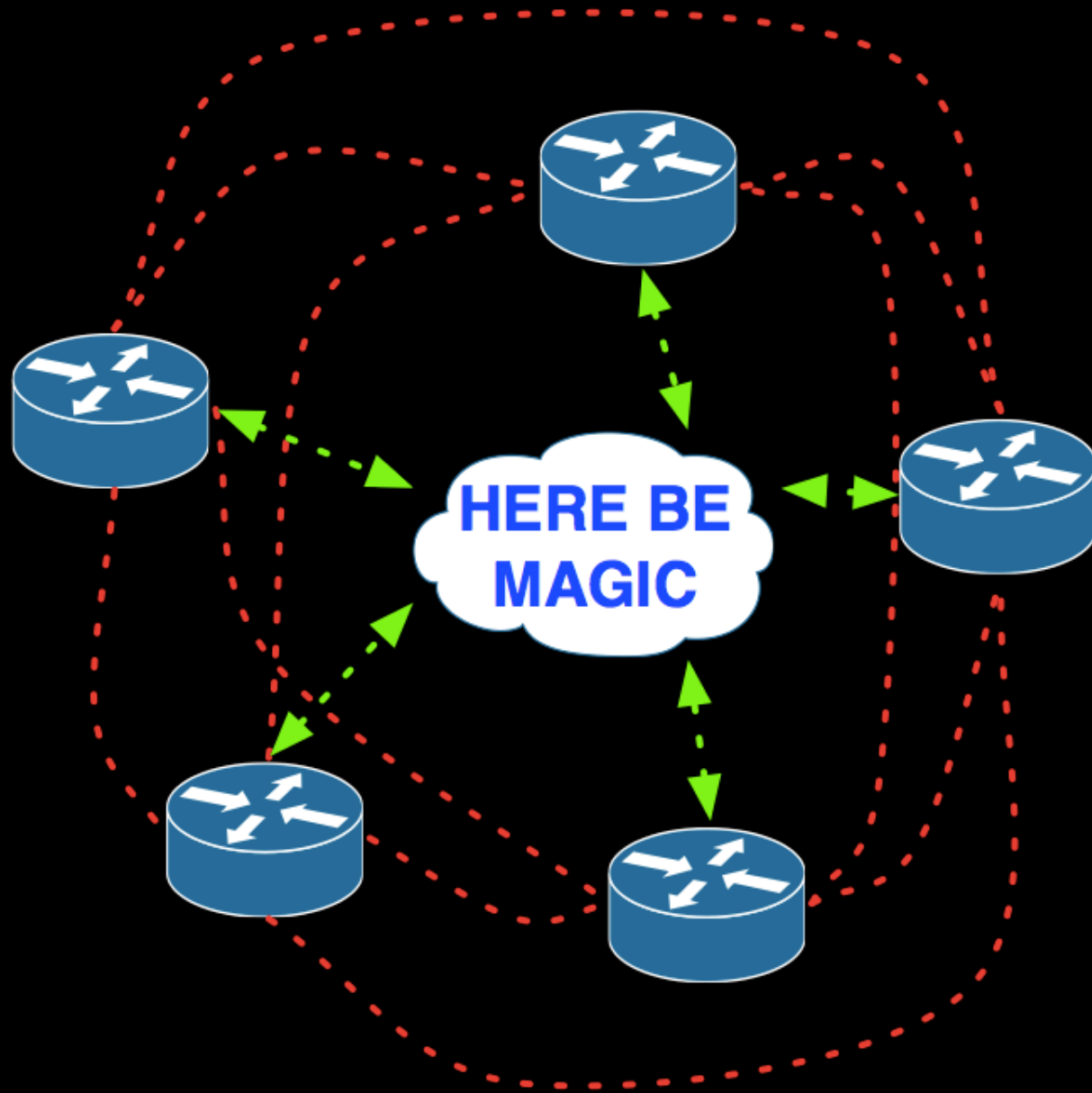
1 Session, Many Peers

Make it reliable

Make it optional

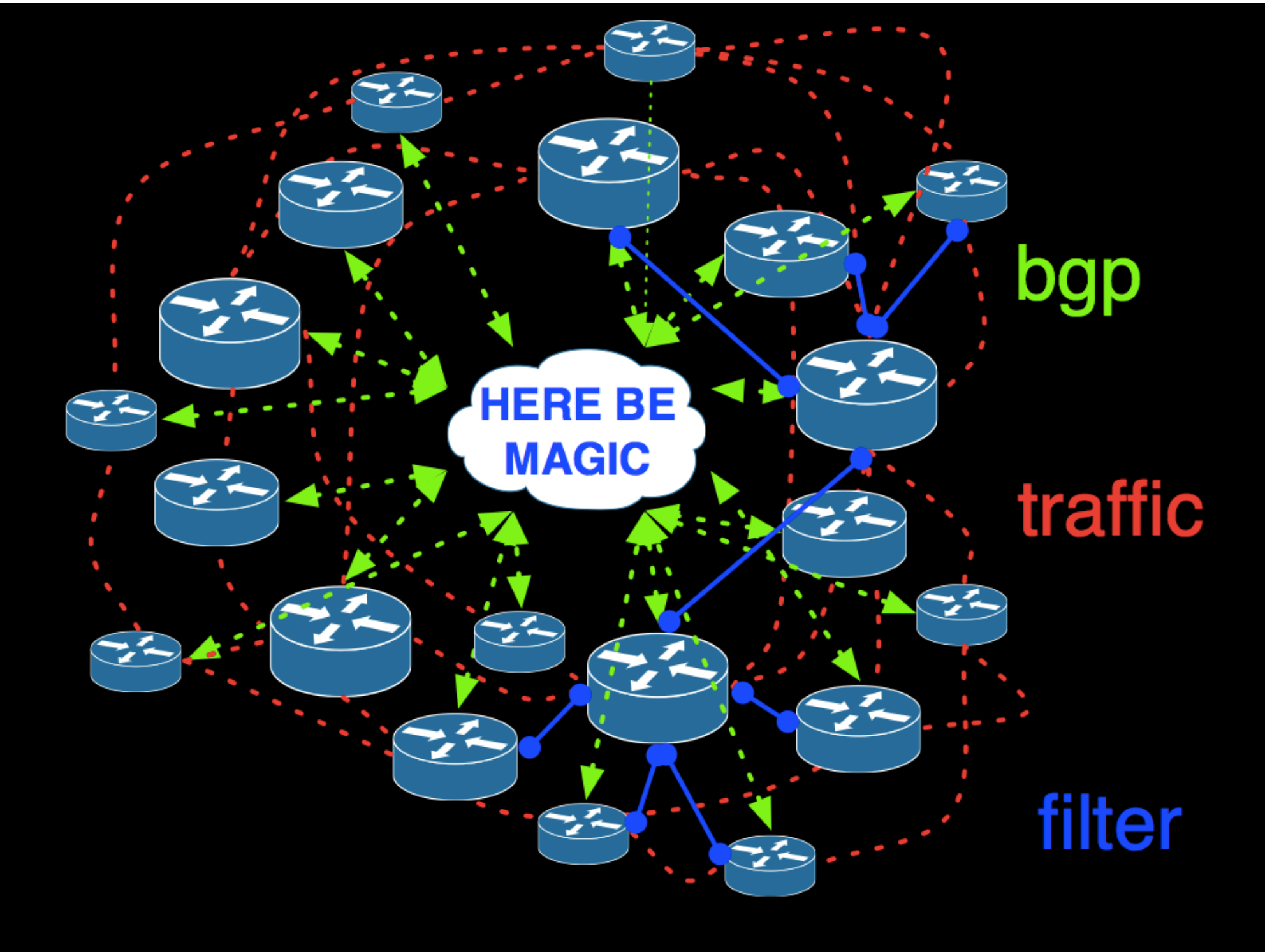


bgp



bgp

traffic



**Turn up
customers!**

Announce

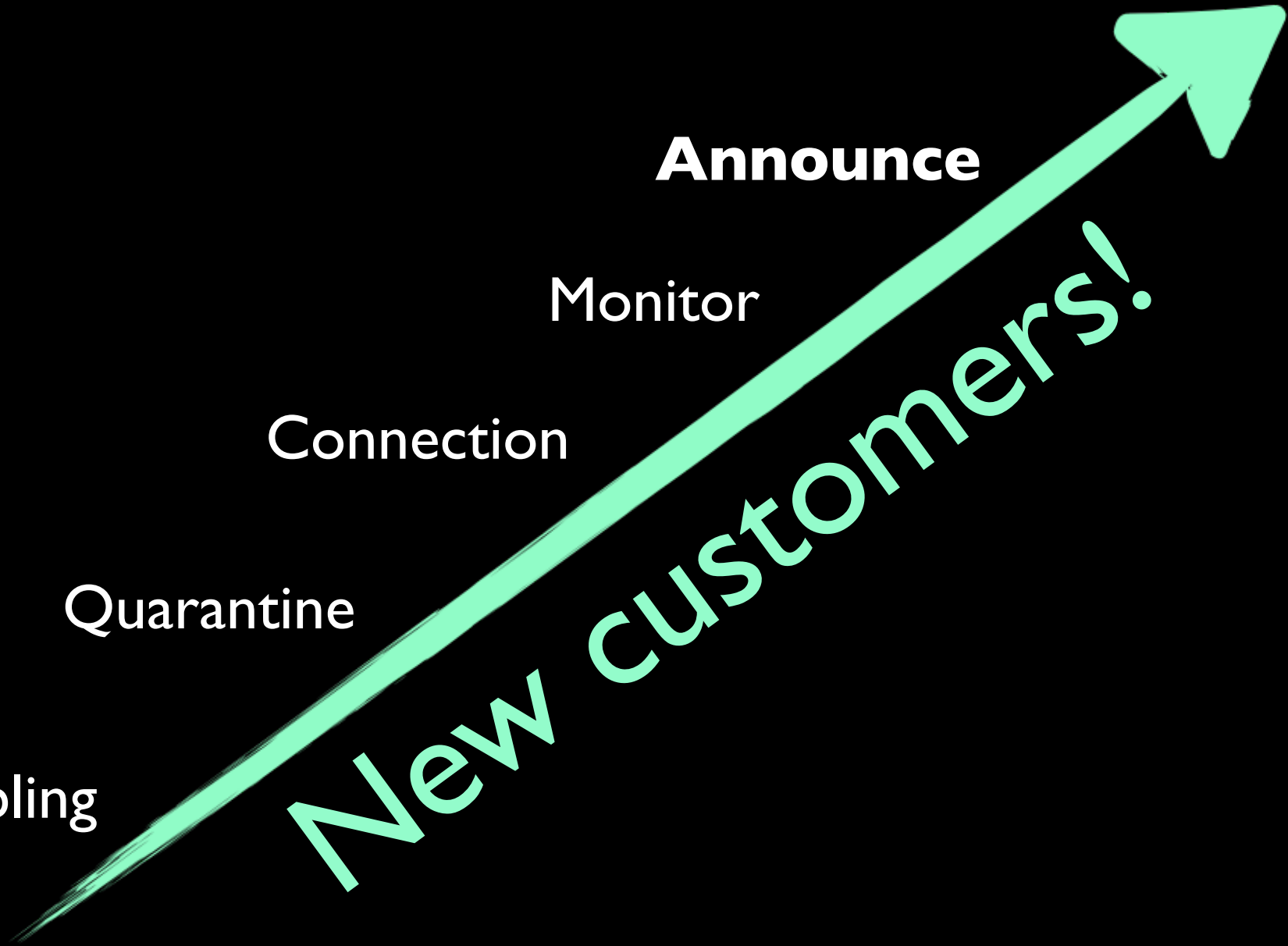
Monitor

Connection

Quarantine

Cabling

New customers!



Quarantine Process

New customers

Naughty customers

Prohibited Traffic

BGP Clue



Offer **IPv6**

From day one

Same service
level



Congestion

Member Ports

ISLs

ARP Sponge



When larger

**Limits spurious
broadcasts**

Any Questions?

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