

Building an IXP

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Hurricane Electric / LONAP / IXLeeds
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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**



Photo courtesy
Orange County Archives

Community

Legal Structure

A close-up photograph of a fountain pen with a black barrel and a silver-colored nib. The pen is positioned diagonally from the top right, having just finished writing a large, dark, cursive '@' symbol on a white, slightly textured surface. The ink is a dark, rich color. The background is a soft, out-of-focus white.

Legal Entity

Commercial

Association

Define your offering

A close-up photograph of a bicycle wheel with a black tire and silver spokes. A yellow, rectangular sign with the words 'FOR SALE' in large, black, stylized letters is attached to the spokes. The background is slightly blurred, showing a blue and yellow object.

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](#)

Quick Links

[Request Forms & Supporting Notes](#)

[IPv4 Evaluation Procedures](#)

[IPv4](#)

End User Contract

No PI from last /8

Special IX v6 rules

Jumbo Frames

> 1500/1522

Peering LAN / CUG

ISLs

Spanning Tree

MRP

Layer 2 Resilience Protocols

VPLS

EAPS

Flex Links

Trill
one day!

Port Security

A large, silver-colored metal padlock is shown in the foreground, attached to a green metal structure. The padlock is open, with its shackle looped through a hole in the metal. The background is a textured green surface, possibly a door or a wall, with some rust visible. A chain is also visible in the upper right corner.

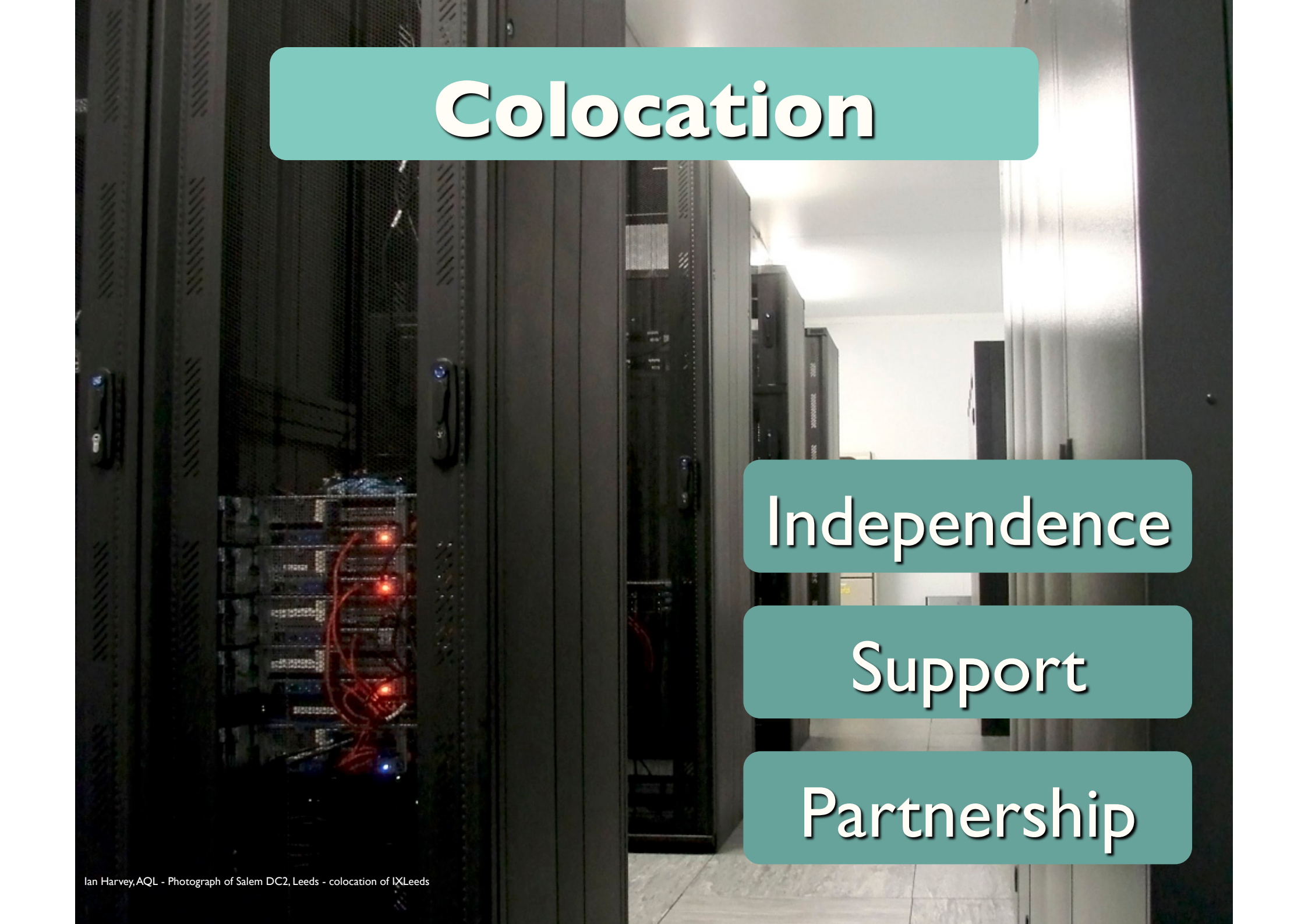
‘n’ MACs per port

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

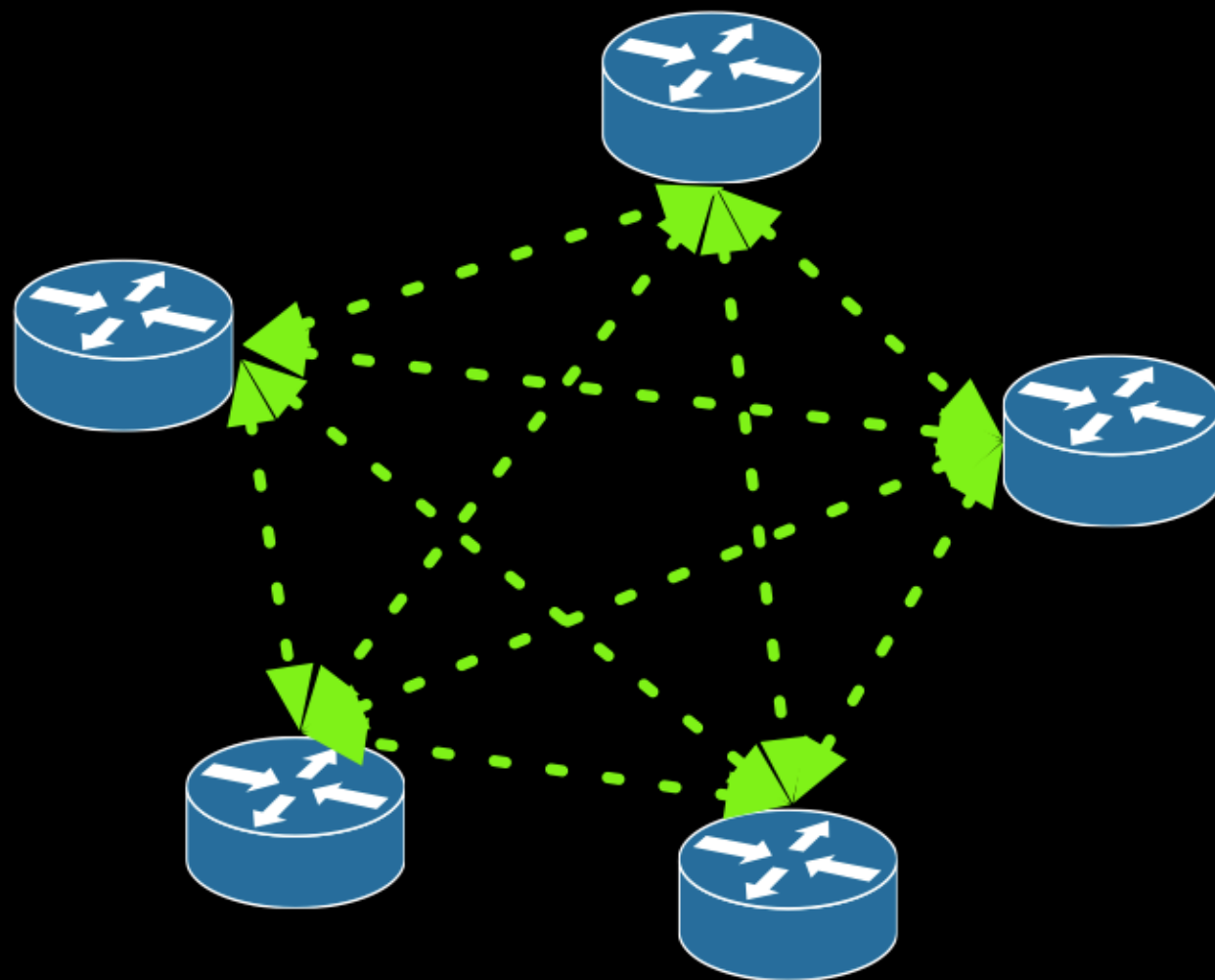
Operations

Route Servers

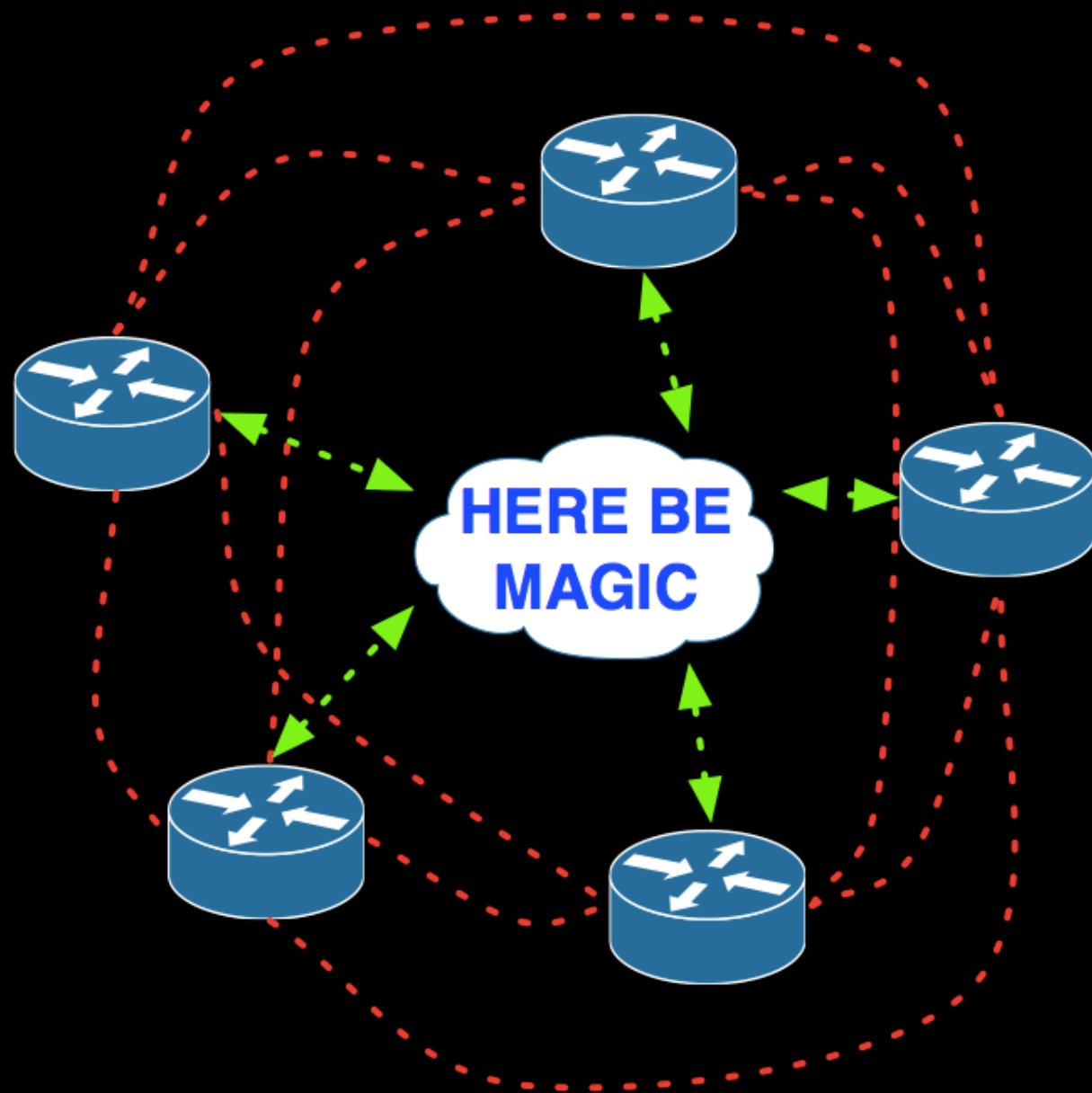
1 Session, Many Peers

Make it reliable

Make it optional

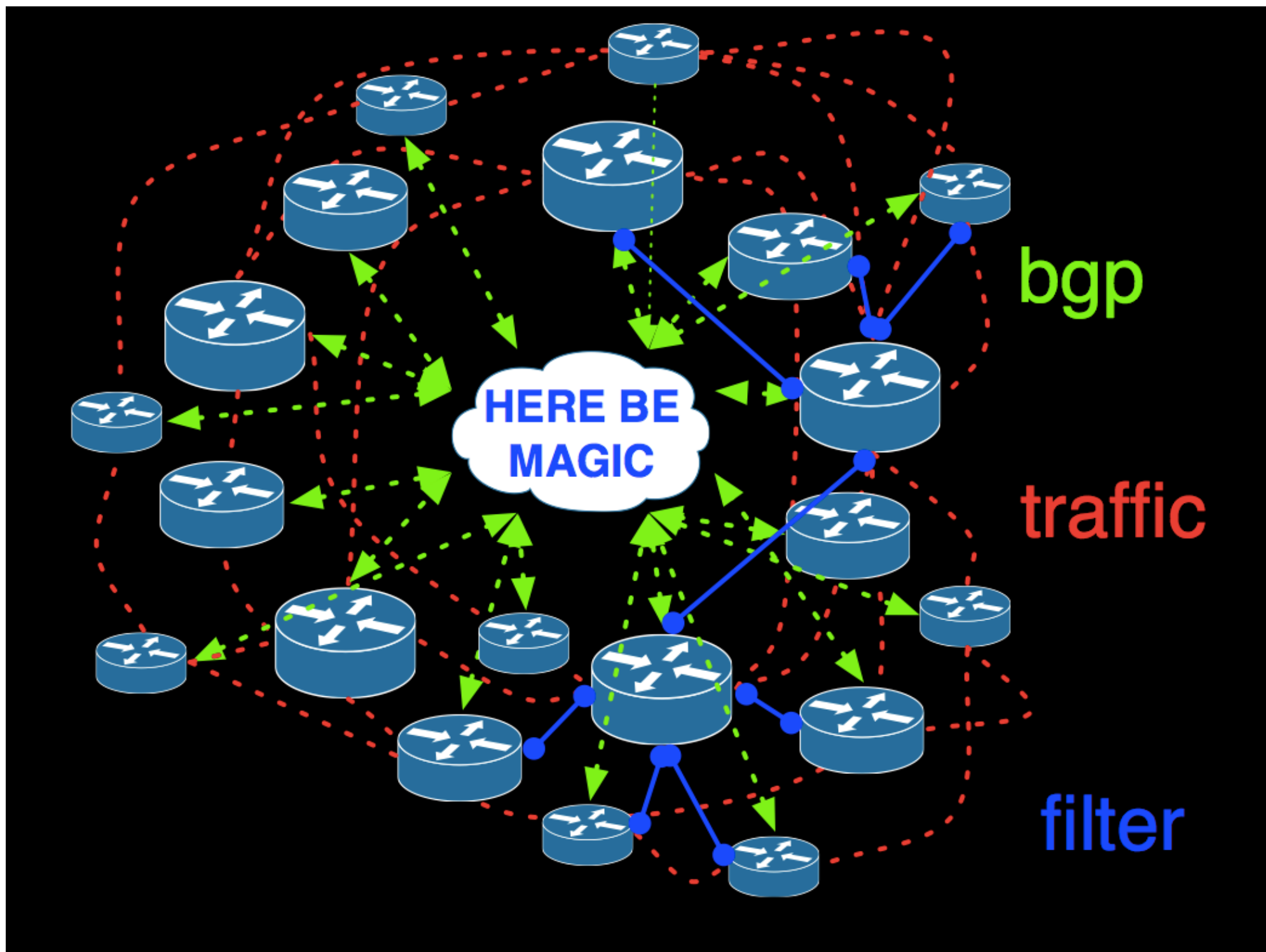


bgp



bgp

traffic



**Turn up
customers!**

Cabling

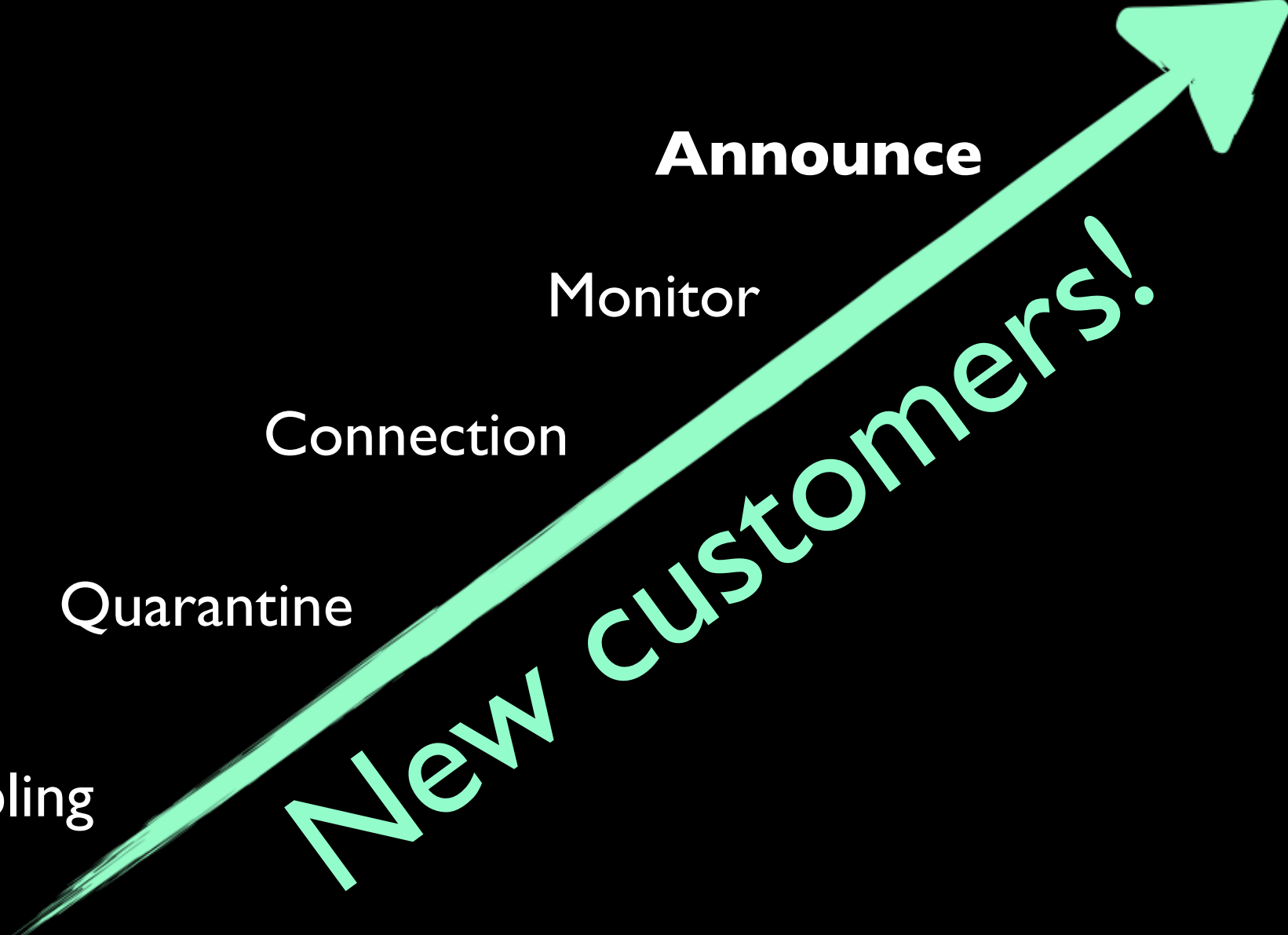
Quarantine

Connection

Monitor

Announce

New customers!

A red arrow points diagonally upwards from the bottom-left towards the top-right. Along the path of the arrow, five white text labels are positioned: 'Cabling' at the bottom-left, followed by 'Quarantine', 'Connection', 'Monitor', and 'Announce' at the top-right. The arrow itself is a thick red line with a large red arrowhead at its tip. The text 'New customers!' is written in a large, bold, red font, following the curve of the arrow's path.

Quarantine Process

New customers

Naughty customers

Prohibited Traffic

BGP Clue



Offer **IPv6**

From day one

Same service
level



Congestion

Member Ports

ISLs

ARP Sponge

A yellow, porous, sponge-like object is positioned in the center of the image. It has a textured, fibrous appearance with many small holes and irregular edges. The object is slightly tilted and casts a soft shadow on the white background.

When larger

**Limits spurious
broadcasts**

Any Questions?

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