

# Regional and International Integration: Joint ARIN-LACNIC Presentation



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34<sup>th</sup> CANTO Annual Conference & Trade  
Exhibition

24 July 2018 • Panama City, Panama



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# 3 Key Take Aways

1

Learn the Role of the Two Regional Internet Registries Servicing North America, Latin America & the Caribbean

2

Track Notable Stat on IP Number Resource Growth in the Region and the factors behind it

3

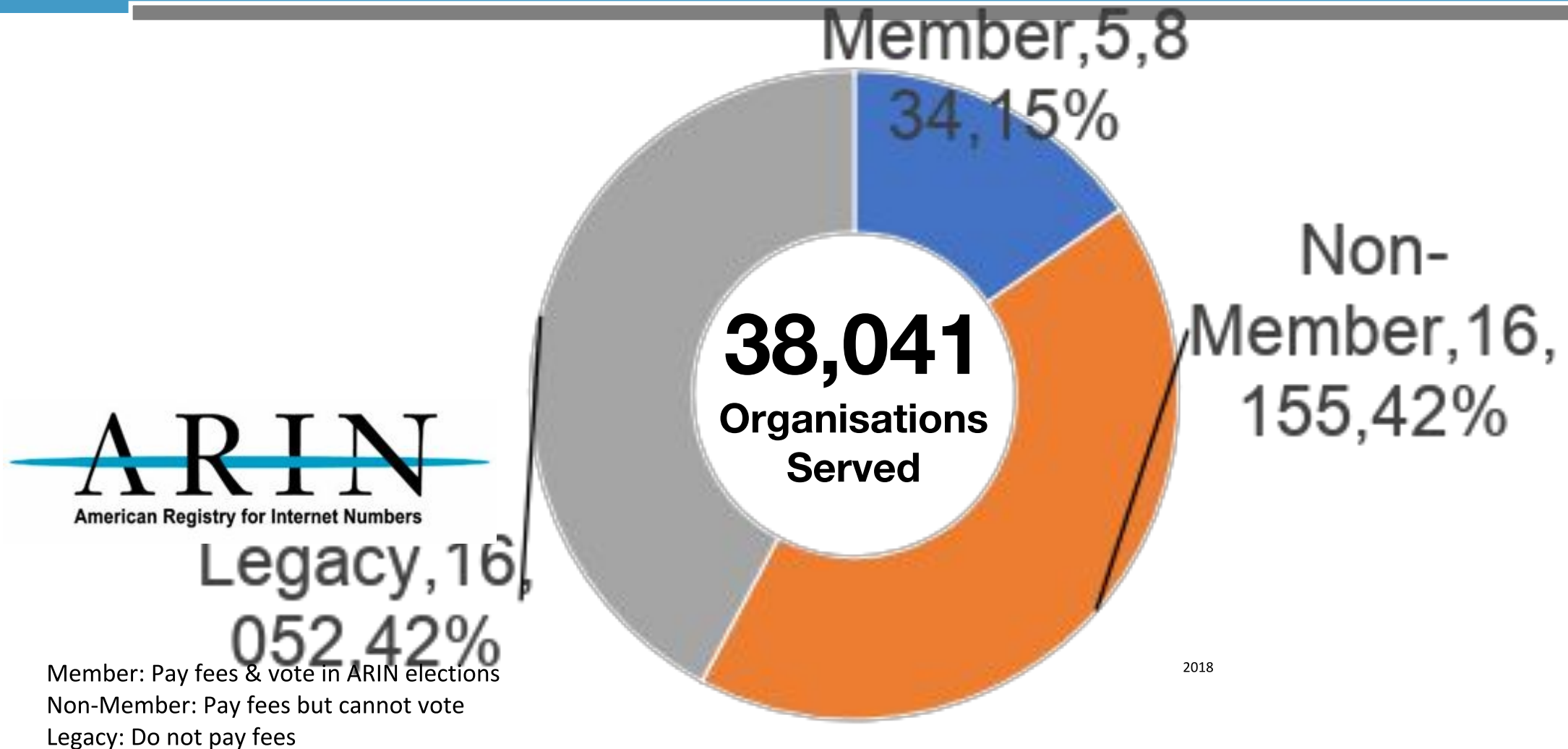
Understand the Role Internet Number Resources Play in Strengthening Caribbean Network & Communications Resilience

# Profile of Organisations We Serve

And How We Help the Caribbean...



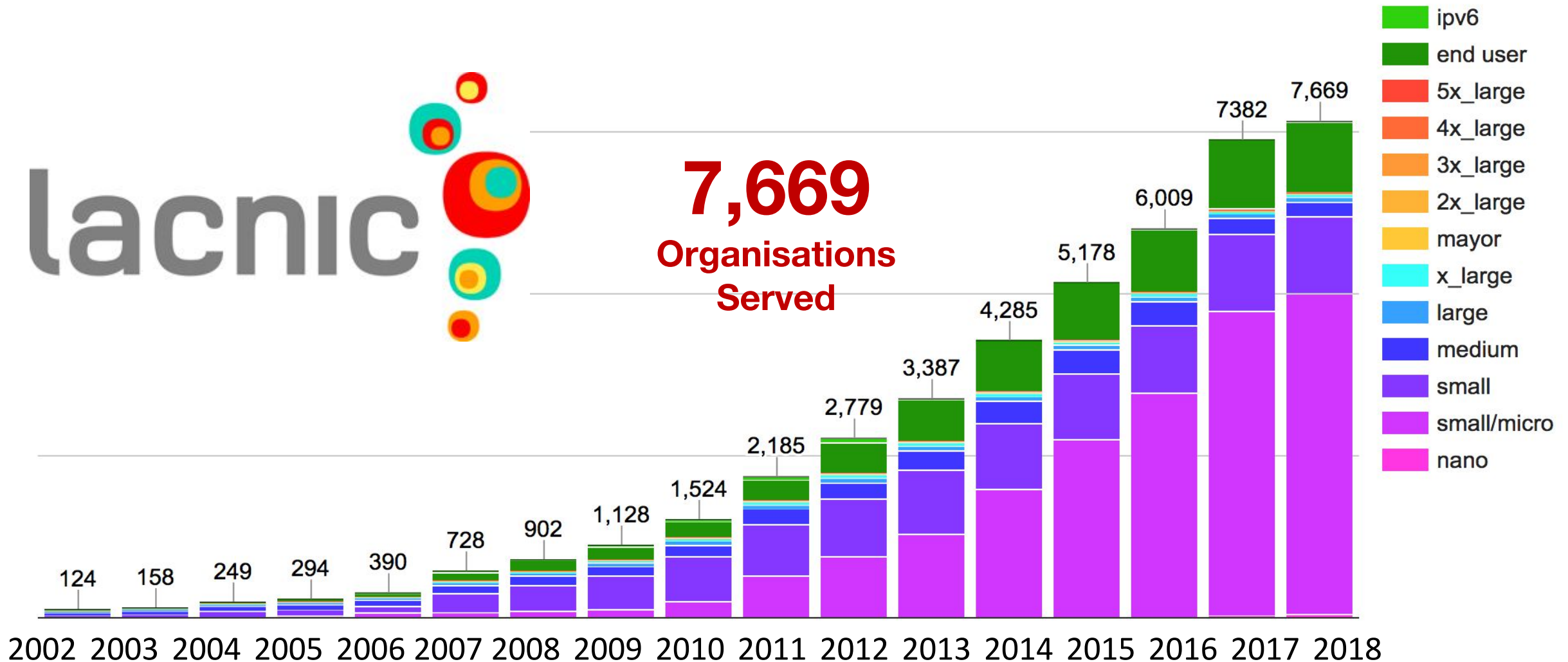
# Organisations Served - ARIN



# Organisations Served - LACNIC



**7,669**  
Organisations  
Served



# Notable Statistics

And What The Mean for the Caribbean...



COUNTRY	TOTAL ORGS	LEGACY	NON-MEMBER	MEMBER
Anguilla	3	0	1	2
Antigua & Barbuda	7	0	4	3
Bahamas	10	1	2	7
Barbados	13	3	5	5
Bermuda	29	8	13	8
Cayman Islands	9	0	3	6
Dominica	5	0	2	3
Grenada	6	2	2	2
Guadeloupe	5	1	0	4
Jamaica	19	8	3	8
Martinique	2	0	1	1
Montserrat	2	0	2	0
Saint Barthelemy	5	0	1	4
Saint Kitts & Nevis	4	0	2	2
Saint Lucia	6	1	1	4
St. Pierre and Miquelon	1	0	0	1
Saint Vincent & The Grenadines	1	0	0	1
St. Martin	6	0	1	5
Turks & Caicos Islands	3	0	0	3
Virgin Islands (British)	14	0	7	7
Puerto Rico	105	16	43	46
Virgin Islands (U.S.)	11	1	5	5
Total	266	41	98	127

Caribbean Orgs served - LACNIC			
	Territory	CC	# of Members
	Aruba	.AW	3
	BES (Bonaire, St Eustatius, Saba) Islands	.BQ	5
	Belize	.BZ	28
	Cuba	.CU	8
	Curaçao	.CW	21
	Dominican Republic	.DO	47
	French Guiana*	.GF	5
	Guyana	.GY	7
	Haiti	.HT	11
	Suriname	.SR	4
	Sint Maarten	.SX	7
	Trinidad & Tobago	.TT	13
	TOTAL		159

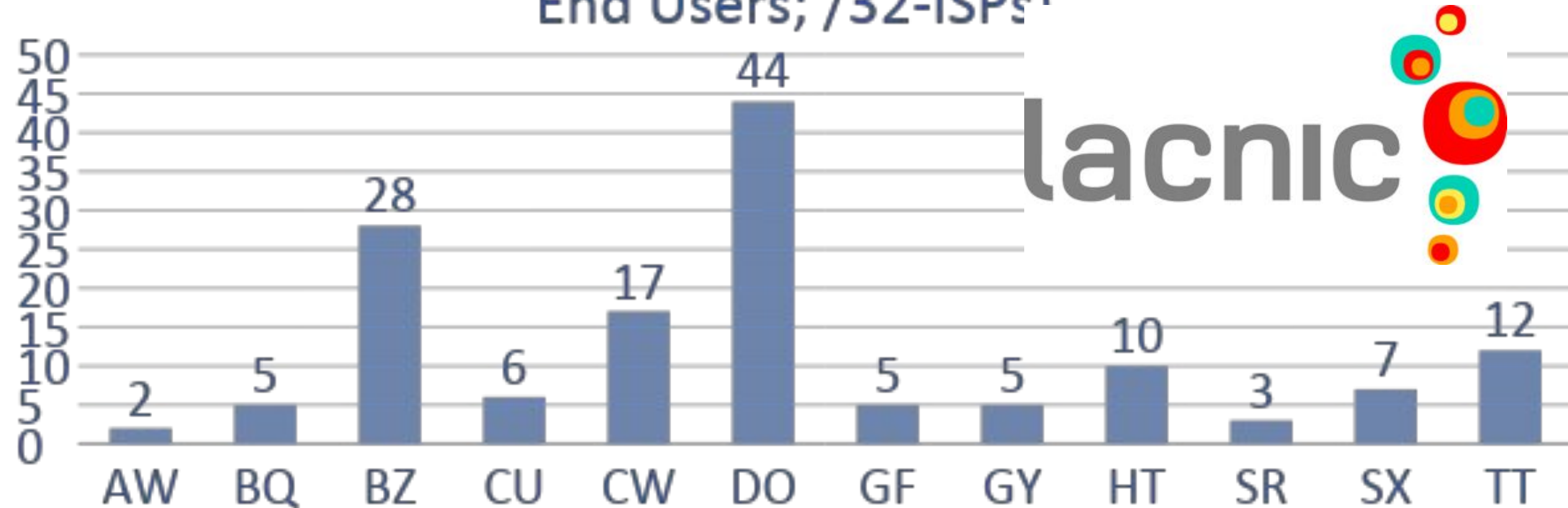


# # Caribbean Orgs With IPv6 Per Country - ARIN



# Caribbean Orgs with IPv6 - LACNIC

LACNIC Caribbean - No. of IPv6 Allocations (/48-  
End Users; /32-ISP<sup>s</sup>)



# Exhaustion Phase - LACNIC

- Phase 3 (current)
  - *Started 15 Feb 2017*
  - *Slightly more than 5M IPv4s*
  - *3.2M IPs available for new entrants only*
- Organisations that already have LACNIC IP addresses cannot receive additional IPv4 space directly.

# Why does this matter?

And What Can You Do...



# Spotlight on Network Resilience

Recent crises  
have put a  
spotlight on  
Network  
Resilience and  
the need to:



Improve Technical  
Capacity in Network  
Engineering



Strengthen Network  
and Infrastructure  
Resilience



Strengthen  
Policy and  
Regulation



Improve Disaster  
Mitigation and Response  
Planning Capability

# Why Network Autonomy Matters

**Reduce**

Reduce Vulnerability to External Dependencies

**Enable**

Enable Number Resource Portability

**Strengthen**

Strengthen Internal Technical capacity

**Improve**

Improve Network Routing And Security Options

**Increase**

Increase Agility And Scalability In Network Design

**Enhance**

Enhance Internal Capacity And Flexibility To Evolve Your Network

# Pathway to Resilience: A Focus on Infrastructure

## AUTONOMY:

- *Gov Managed IP Number Resources (Gov ASN(s), IPv4, IPv6)*

## NETWORK:

- *Gov Fiber Networks with Coverage to Public Good Service Providers (Health, Security, etc)*

## IXPs:

- *Domestic Bandwidth Creation and Local Traffic Exchange*

## CARIBBEAN CLOUD:

- *Local Cloud Services – Backup, Hosting, VMs, App Hosting with OECS redundancy*

## DIGITAL SKILLS:

- *Training, Innovation Labs, and IT-Enabled Services Hubs*

# What's Been Happening

## Kicked off **ARIN** in the **Caribbean** Events in 2018

- *6 countries to date  
drew over 300  
participants*





# ARIN Caribbean Event

- Key Talking Points
  - *Why Network Resilience Matters*
  - *What Practical Steps Can Be Taken*
  - *How ARIN Can Help*



# Consistent Community Feedback

## TOP PRIORITIES

1. Network Resilience
2. Network Autonomy
3. IPv6 Adoption
4. Network Security
5. Technical Capacity Building



# ARIN Supporting Caribbean Internet Development

ARIN Caribbean Forum Launched in April 2018

- ✓ *Technical Training with CaribNOG*
- ✓ *Internet Public Policy Series with CTU*
- ✓ *Cyber Security for Regional Law Enforcement and Judicial Education with APEX*
- ✓ *Internet Resilience Support with the OECS*
- ✓ *Caribbean Peering Support with CarPIF*

Joint Efforts  
being planned  
with LACNIC  
for 2019



# LACNIC Outreach Events - #OnTheMove

LACNIC OnTheMove launched in July 2015



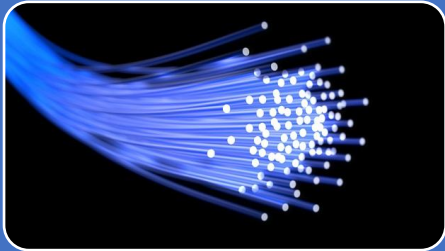
*Evolution of LACNIC Caribbean series*

- ✓ *2015 – Suriname, Belize*
- ✓ *2016 – Honduras, Dom Rep, St Maarten*
- ✓ *2017 – Guatemala, Guyana, Colombia*
- ✓ *2018 – Paraguay, T&T (scheduled Oct 2018)*

<http://onthemove.lacnic.net>



# LACNIC Community Priorities



**Boosting Internet infrastructure** (optimising Internet traffic management via interconnection training, root zone deployment, deploying DNSSEC, RPKI, etc)



**Cyber security** (Warning Advice and Reporting Point (WARP – a LACNIC CSIRT), AMPARO project on establishing CSIRTs in organisations)



**Skills development for digital employment** (Ayitic Goes Global, digital entrepreneurship training)

# LACNIC Supporting Caribbean Internet Development - #Internet4Development



A collaborative initiative from:



Digital innovation for the Global South

# Collective Effort Underway



**CarPIF**  
CARIBBEAN PEERING &  
INTERCONNECTION FORUM



Organisation of  
Eastern Caribbean  
States



Caribbean  
Telecommunications  
Union



# THANK YOU



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