

28 April 2021



InterCommunity 2021

Infrastructure and Community Development



Housekeeping Rules

To help ensure everyone can participate, please note the following:

- We have simultaneous translation available in French and Spanish and closed captions available in English, sponsored by Flexoptix. You can select these options in your Zoom panel.
- Keep your microphone on MUTE at all times unless you are asking a question.
- Please use the chat for all questions. Keep your questions brief and to the point.
- Kindly format your questions with your first name and country (e.g., Jane, Kenya; Roberto, Chile).
- Feel free to type questions in French or Spanish. These will be translated and sent to the moderator.
- This session will be recorded and a link for future viewing will be shared after the call.





Challenges of Developing an IX, Managing the Community

28 Apr 2021
ICOMM 2021

Anupam Agrawal
Chair - India Internet Foundation
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The Milieu

1

One thing leads to another. ISOC Kolkata Chapter was working on building root instance infrastructure in the region. An IXP was required as a precondition for implementation of a particular root instance. It was where it all started.

2

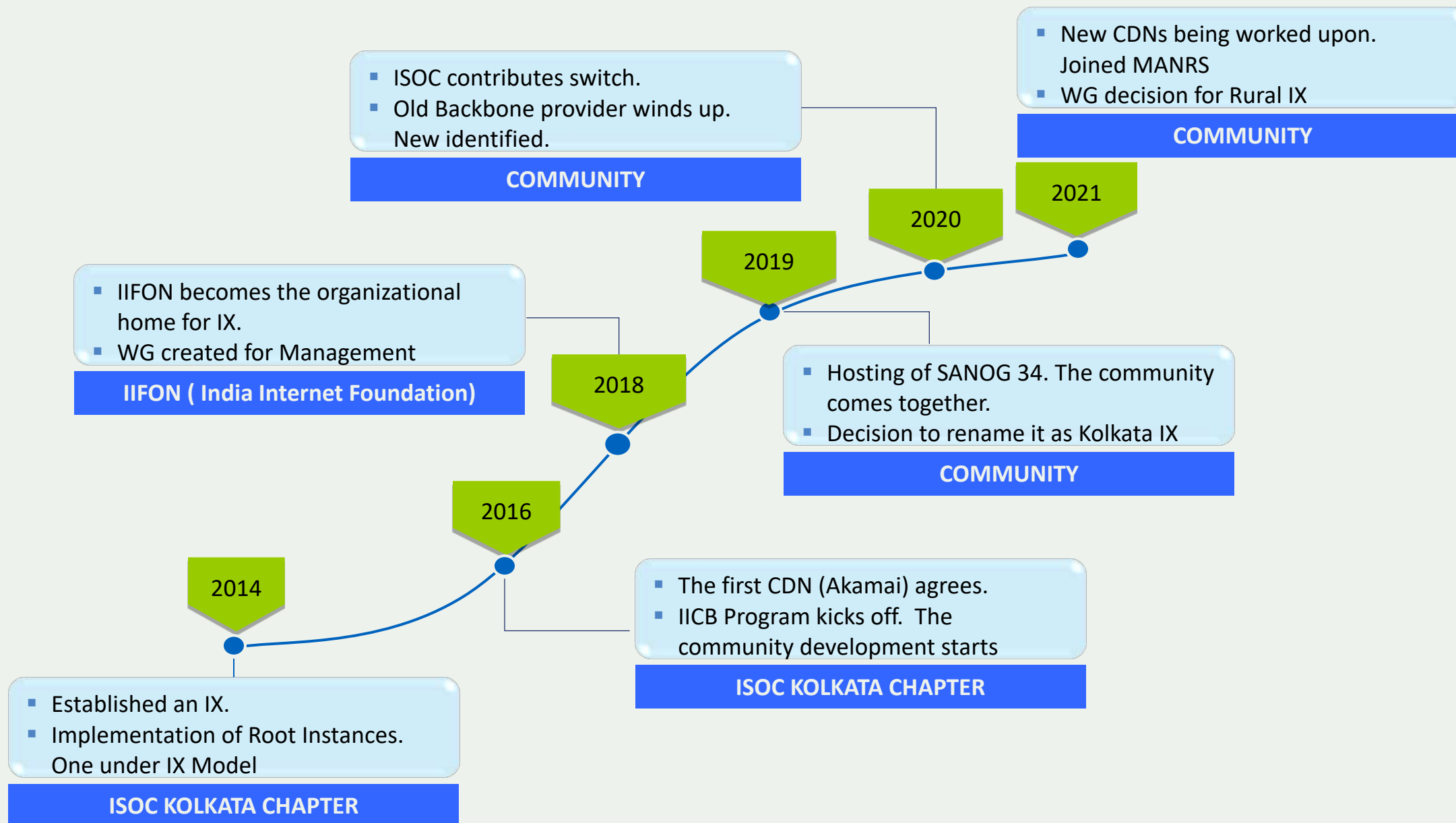
The existing IXP was one in the country. No community & definitely no concept of a community exchange.

3

Conversations with the members evoked mixed response. It was okay to peer at IXP but not okay to share routes. It was very transactional with no clear articulation of benefits.



KOLKATA IX Journey Challenges & Management



The Community & Supporters



Anupam Agrawal
India Internet Foundation
[Convenor]



Anand Raje
ISOC Kolkata Chapter
[Member]



Suresh Kumar Singh
India Internet Foundation
[Advisor]



Pulak Majumdar
India Internet Foundation
[Member]



Chandan Singh
MFT Internet Pvt. Ltd.N
[Member]



Ankan Bhowmick
Alliance Broadband
[Member]



Dayal Saha
Speednet Unique Networks
[Member]



Prasenjit Bhakta
Sistemas
[Member]



Joy Chanda
Bittell
[Member]

The Value of Being in a Community

1

The IX Policies are where anyone can peer, no restriction on being an ISP only, fixed pricing based on port charges and not on traffic basis. Cost Recovery Model & savings pooled for new initiatives. Rural IXPs

2

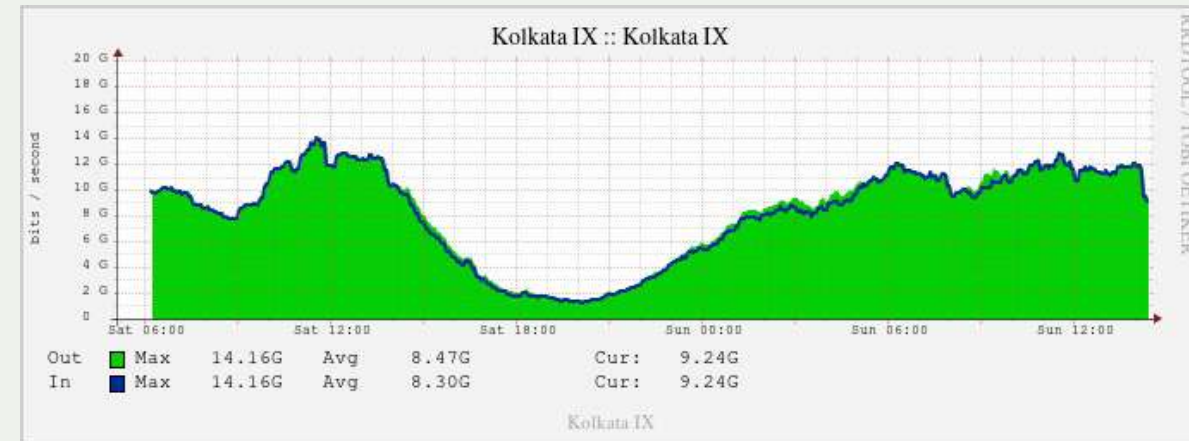
Each Member ~ 60% savings in cost. Year ending March 2021, savings value delivered was 530K USD.

3

Investment – Equipment Upgrades, trained manpower, faster resolution. Foundations.

4

Routing Security – Kolkata IX is MANRS compliant and is handholding its members to become MANRS compliant.



Graph as on 11.PM IST - 25- Apr 2021

www.kolkataix.in

<https://www.peeringdb.com/ix/1577>

Summing Up

1

Empirical Relationship

The Internet resilience of a region is directly proportional to the number of IXPs in the region.

2

Social Impact

The IXP produces social effects. It promotes trust among competition and manifest itself in better user experience.



Thanks Everyone & Namaste !!!



SdNOG

Building a community!!!

InterCommunity 2021 - Hiba Eltigani



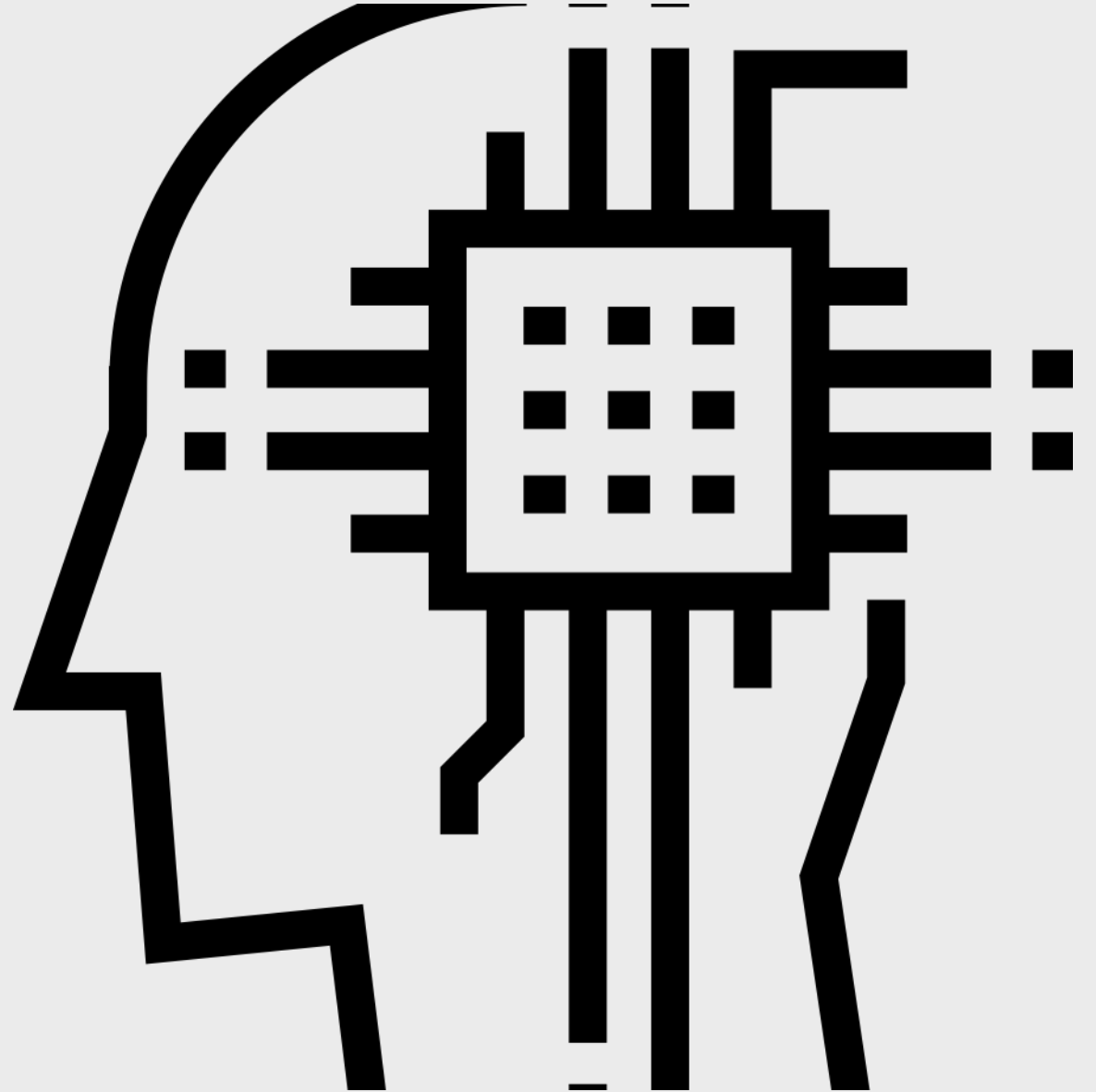
Why ?

Technical collaboration.

Knowledge and experience exchange.

Networking and mentorship.

National Infrastructure.



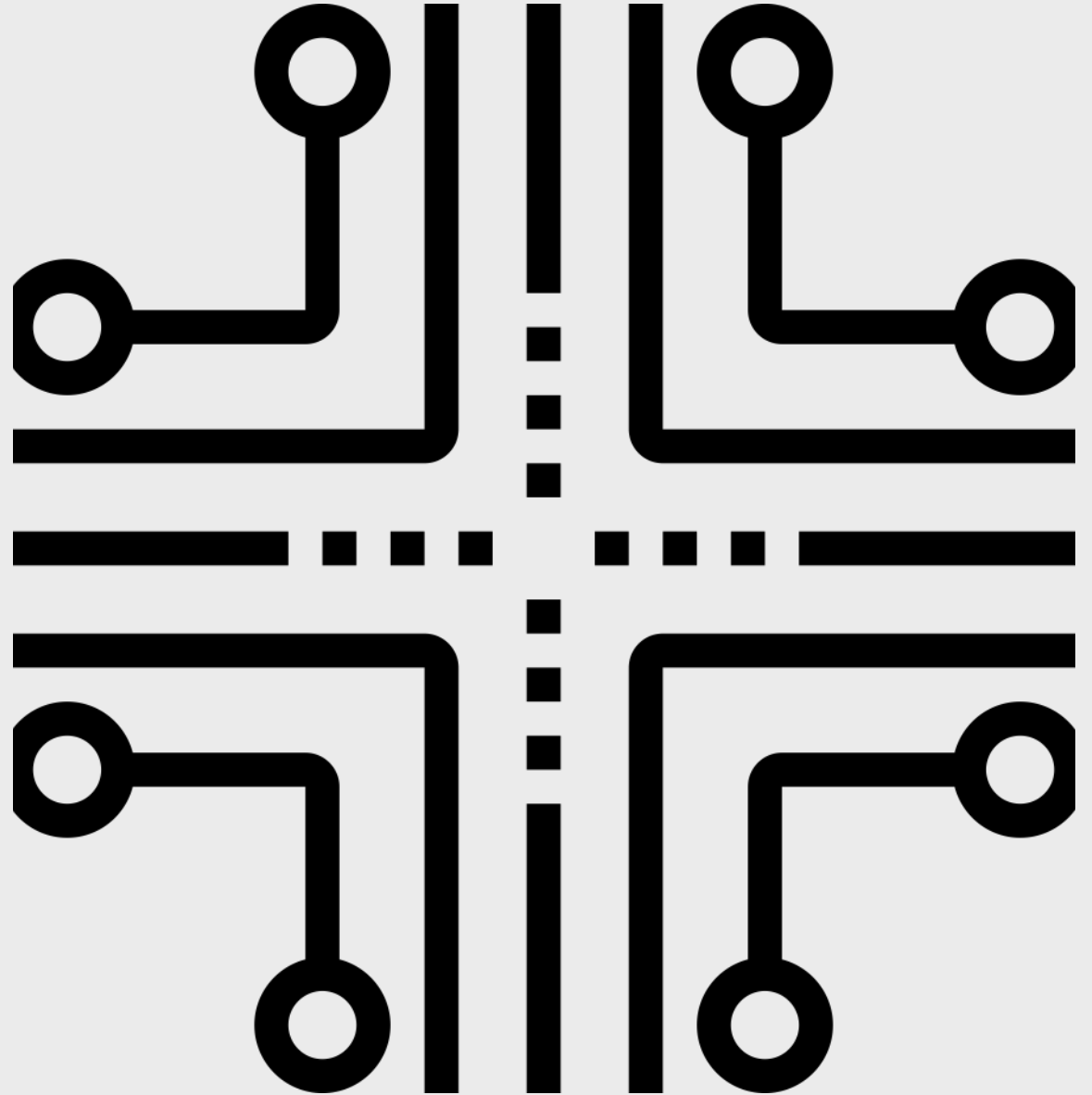
How ?

Volunteer support.

Technical events.

Online platforms.

Stakeholder collaboration.



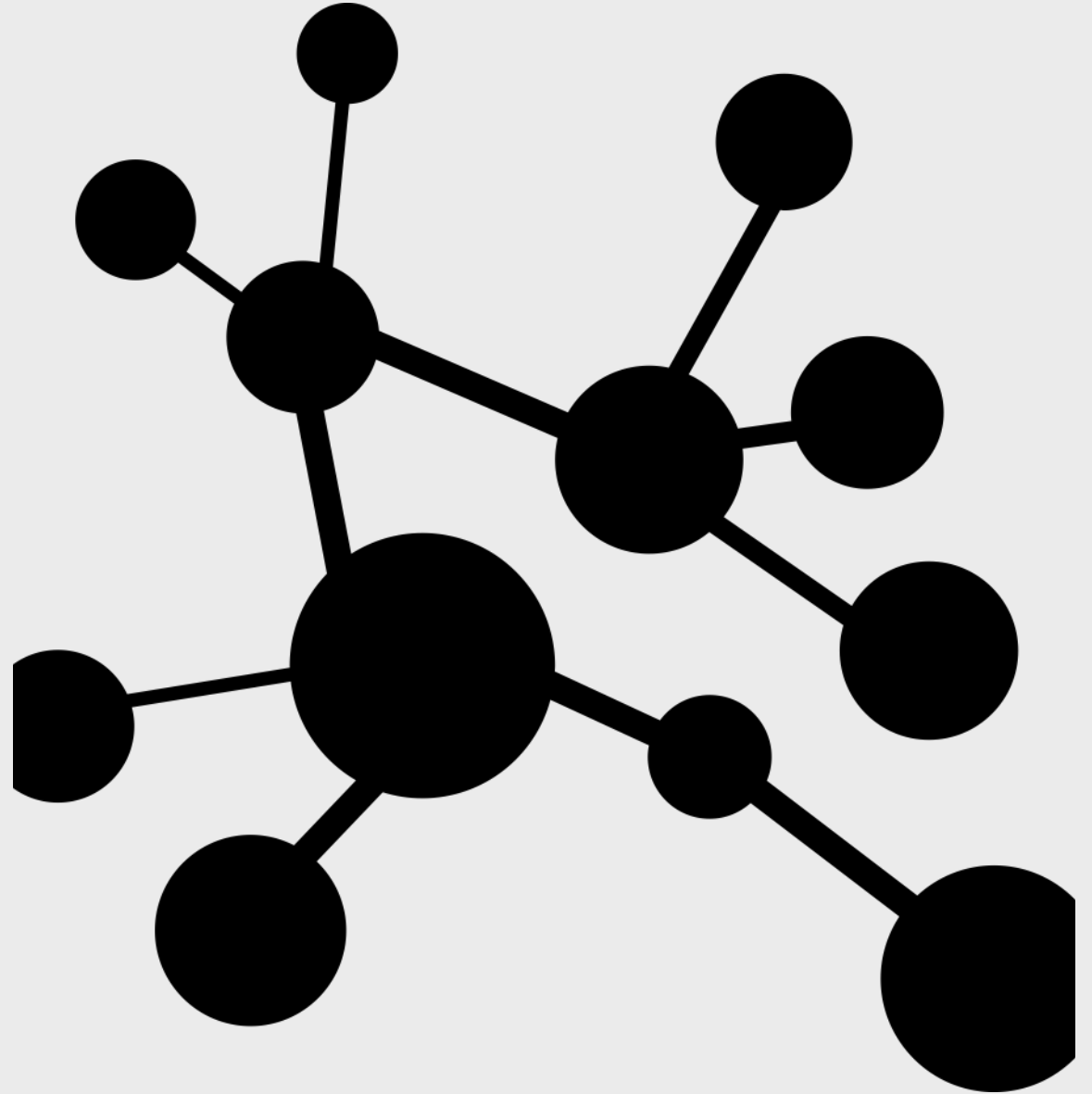
Results ?

Growing community base.

Stakeholder recognition.

Infrastructure transformation.

Knowledge domino effect.

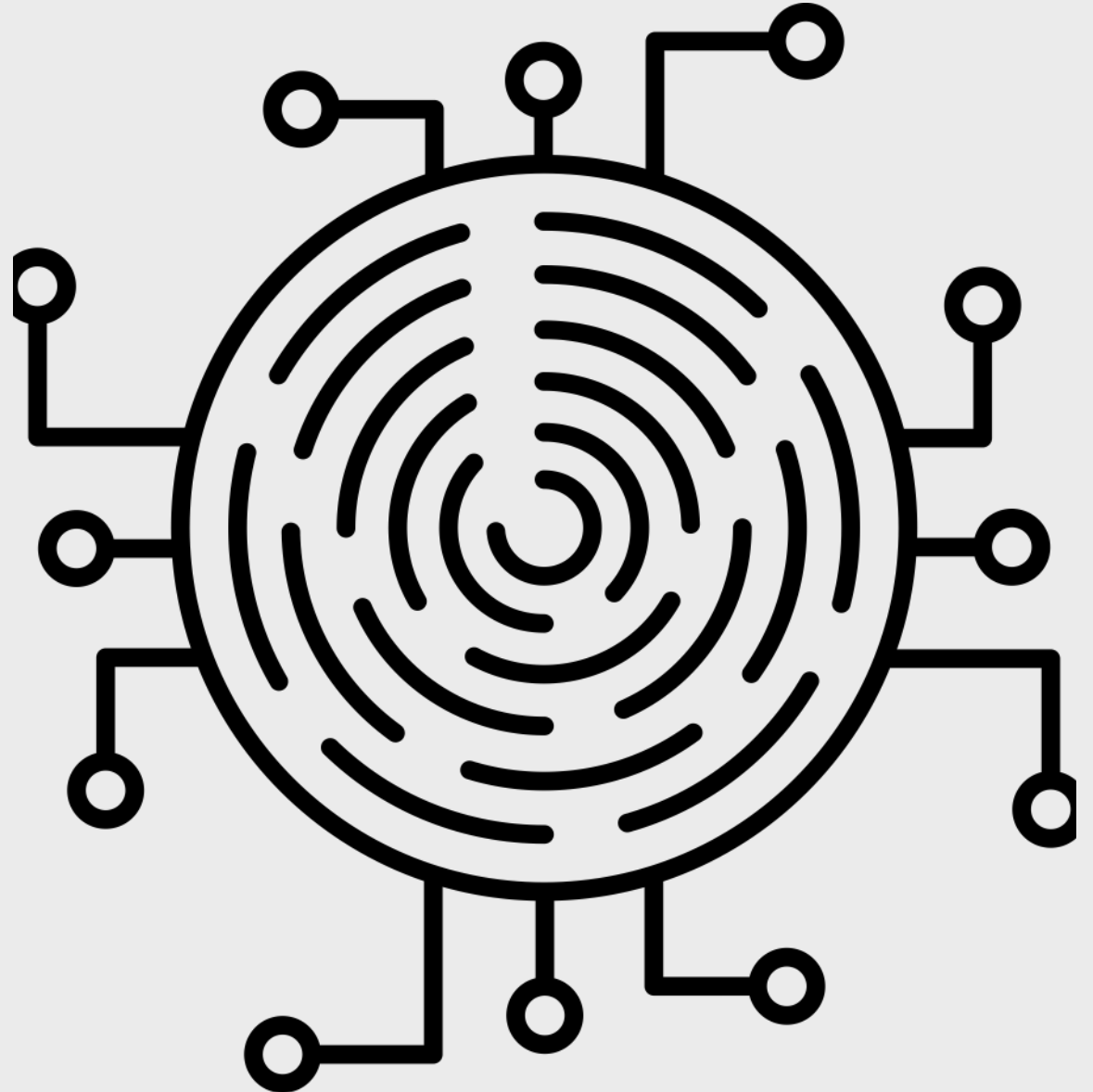


Challenges ?

Country situation.

People commitment.

Industry Involvement.



SdNOGPage



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@SudanNOG



<https://sdnog.sd>

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BUILDING THE CARIBBEAN NETWORK

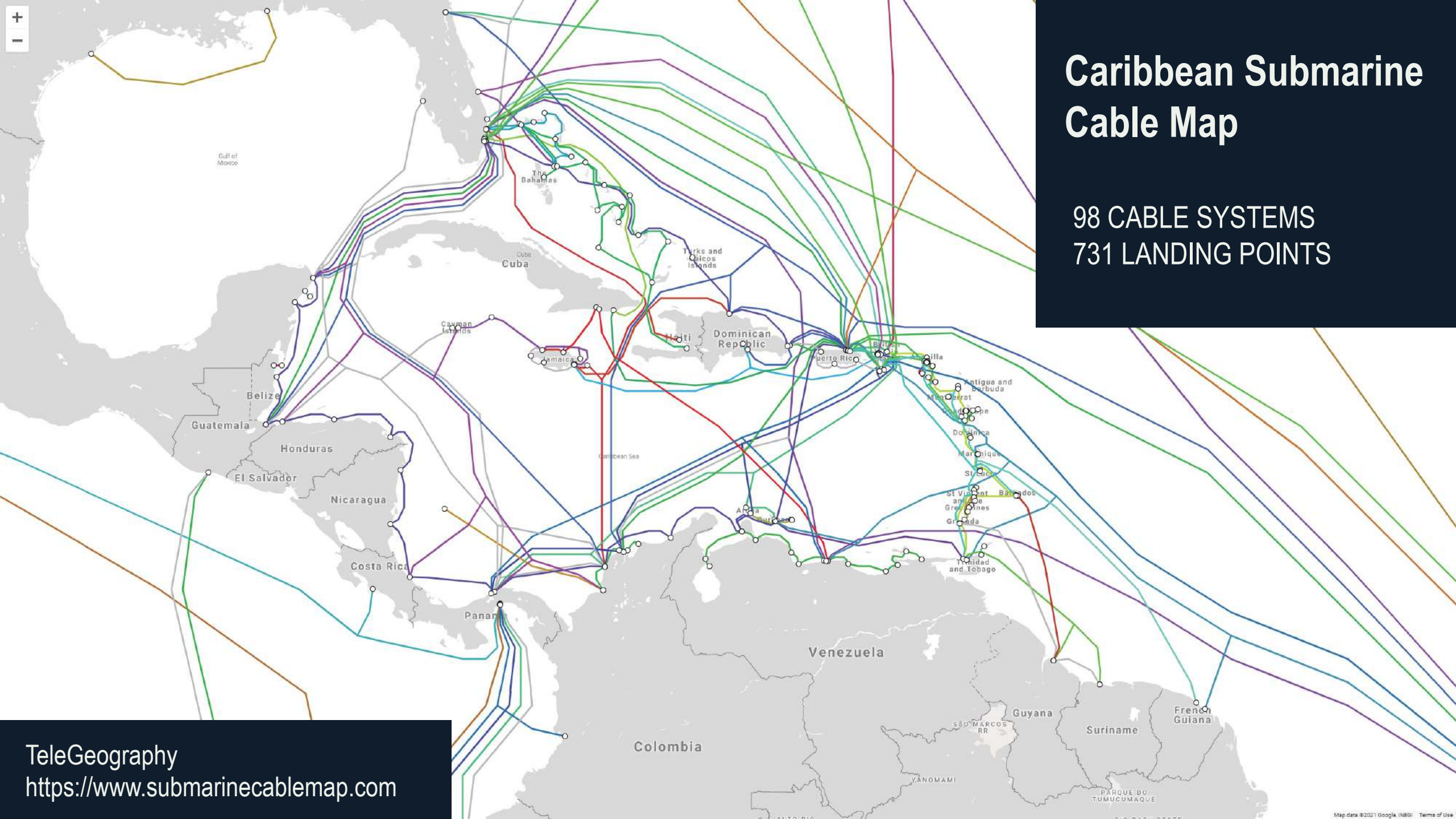


CaribnOG

WE ARE HERE



THE CARIBBEAN REGION IS HOME TO...
40 COUNTRIES & DEPENDENCIES
43 MILLION PEOPLE



Caribbean Submarine Cable Map

98 CABLE SYSTEMS
731 LANDING POINTS

Caribbean Internet Exchange Map

10 COUNTRIES
12 EXCHANGE POINTS



TeleGeography
<https://www.internetexchangemap.com>

Caribbean Cloud Infrastructure Map





ABOUT CARIBNOG

- **A community of network operators and stakeholders committed to providing a regional forum for research, knowledge sharing and infrastructure support**
- **Established in 2007 through the support of CTU, ARIN and PCH**
- **Partnerships with iOrgs, regional institutions and businesses**
- **Regular Regional Meetings, member dialogue and capacity-building initiatives**

www.caribnog.org





Networking for Caribbean
Development





ARIN & CaribNOG Webinar Series

COVID-19 AND THE CARIBBEAN INTERNET

Managing Virtual Offices & Remote Workers

Business Continuity Support Considerations for Tech Workers

Where: Online @ www.caribnog.org
When: Thurs. 9 April 2020 11:00 a.m. EST

HOSTED BY: Registry for Internet Numbers & Network Operators

Logos: ARIN on the Caribbean, CaribNOG, Organisation of Eastern Caribbean States, Caribbean Telecommunications Union, lacnic, Internet Society, ICANN, PCH

ARIN / CARIBNOG WEBINAR
COVID-19 AND THE CARIBBEAN INTERNET

Where: caribnog.org/webcast
When: Friday 12 June 2020 11:00 AM – 12 PM AST

Who: CTOs, IT Managers, Network Admins, IT Support Teams

BONUS:
Meet the Panelists Session: 12:00 PM – 12:30 PM

REGISTER @ CARIBNOG.ORG

TOPIC: NETWORK RESILIENCE II: Disaster Mitigation & Recovery Planning

Friday 12 June 2020 from 11:00 AM – 12 PM AST

Logos: ARIN, CaribNOG, lacnic, Internet Society, PCH

ARIN / CARIBNOG WEBINAR
COVID-19 AND THE CARIBBEAN INTERNET

Where: caribnog.org/webcast
When: Friday 29 May 2020 11:00 AM – 12 PM AST

Who: CTOs, IT Managers, Network Admins, IT Support Teams

Special Meet the Panelists Session: 12:00 PM – 12:30 PM

REGISTER @ CARIBNOG.ORG

INCREASING NETWORK AUTONOMY IN THE CARIBBEAN: ASNs and IPv6 DEPLOYMENT

Getting the Most from Number Resources II

Friday 29 May 2020 from 11:00 AM – 12 PM AST

Logos: ARIN, CaribNOG, lacnic, Internet Society, PCH

ARIN / CARIBNOG WEBINAR
COVID-19 AND THE CARIBBEAN INTERNET

Where: caribnog.org/webcast
When: Friday 22 May 2020 11:00 AM – 12 PM AST

Who: CTOs, IT Managers, Network Admins, IT Support Teams

Special Meet the Panelists Session: 12:00 PM – 12:30 PM

REGISTER @ CARIBNOG.ORG

INCREASING NETWORK AUTONOMY IN THE CARIBBEAN: ASNs and IPv6 DEPLOYMENT

Getting the Most from Number Resources

Friday 22 May 2020 from 11:00 AM – 12 PM AST

Logos: ARIN, CaribNOG, lacnic, Internet Society, PCH

CURRENT EMPHASES

- **Internet Exchange Point proliferation and growth**
- **Local content and services - leveraging IXPs to expand economic opportunities**
- **Capacity building in the area of cybersecurity**
- **Training courses in targeted domains - continuously delivered and easily accessed**
- **Academic research and open data**

Participate in Building the Caribbean Network



www.caribnog.org
caribnog@caribnog.org



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CaribNOG on YouTube



CaribNOG on Instagram

Q&A Session



Get Involved

- Learn more about IXPs:
 - <https://www.internetsociety.org/issues/ixps/>
- Make a difference in your own community!
 - Reach out to the Internet Society to get started: infracomdev@isoc.org
- Join Upcoming IXP events:
 - Central Africa Peering Forum (29 April)
 - The Virtual Peering Series Africa (4 May)
 - The Virtual Peering Series - Central Asia (11 May)

More information at <https://www.internetsociety.org/events/>

Thank you.

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