## Welcome to NANOG 85

Montréal, Canada 6 – 8 JUN 2022

NANOG<sup>™</sup>

NANOG

CynusOne

## NANOG®

NANOG

North American Network Operators' Group Working together, to build the Internet of tomorrow ®



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## What is NANOG?

- We are a community-driven nonprofit organization.
- Our roots date back to 1987, when Merit Network was tasked with re-engineering and managing the NSFNET.
- •NANOG's original charter was formed in 1994.
- In 2011, the NANOG community voted for independence from Merit Network.
- •NANOG was the first, and is still the largest, Network Operators' Group.



## What does NANOG do?

- Conferences that showcase innovative, educational content that aims to drive new solutions to the networking community's greatest challenges.
- Mentoring the next generation of networking professionals.
- Empowering those supporting Internet access in underserved communities across North America.
- Actively encouraging diversity, inclusion, and collaboration within our community.





13,000+ industry professionals and students.

**1,000+** attend NANOG conferences.

**200+** are first-time attendees.

**20+** countries around the world represented.



## Network Operators' Groups

Come for the opportunities, stay for the community.



## What's a NOG?

- Community organizations committed to supporting local and regional Internet professionals.
- Guided by the principle of an open exchange of knowledge and expertise.
- Formed by network operators, engineers, and other experts in the Internet community.
- Efforts that improve the quality and availability of the Internet within their regions.



## What's special about NOGs?

- •They're driven by individuals, not corporations all are equal.
- •They're educational technical presentations are available to all.
- •They're local designed to focus on the needs within their communities.
- •They're neutral non-commercial, and non-political.



## How can you benefit from NOGs?

- Learn current best practices from experienced industry professionals.
- Obtain knowledge and training on the latest Internet technologies.
- Discuss current issues and challenges faced by the community.
- Form strategic business relationships.
- Form crucial peering arrangements.



### **NANOG Resources**

• NANOG Mailing List:

https://mailman.nanog.org/mailman/listinfo/nanog

- Conference presentations + tutorials: <u>https://www.youtube.com/user/TeamNANOG/</u>
- Outreach:

https://www.nanog.org/outreach/

• Articles:

https://www.nanog.org/stories/



## **Industry Job Facts**

- 383,000 people are employed in the field of network operations.
- Yet there are currently 30,863 unfilled network engineering jobs on indeed.com.
- It will increase by an additional 19,000+ each year.
- The industry competes with 700,000 open tech jobs.



# NANOG Governance

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How NANOG is run

**N** A N O G<sup>\*</sup>

#### **Board of Directors**



Tina Morris Board Chair



David Siegel Vice Chair



Vincent Celindro Treasurer



Steve Feldman Secretary



Benson Schliesser Board Member



Cat Gurinsky Program Committee Chair



Edward McNair Member/Exec Director



#### NANOG Staff



Edward McNair Executive Director



Darrieux "Dé" Harvey Meeting + Events Director



Valerie Wittkop Program Director



Claudia Bristol Controller + HR



Leigh Brooks Senior Designer



Elizabeth Drolet Marketing Content Creator



Shawn Winstead Bus. Development Specialist



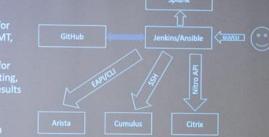
## **NANOG Committees**

- Program Committee (standing)
- Elections Committee
- Audit Committee
- Compensation Committee
- Mentorship Committee
- Education Committee
- Scholarship Committee
- Outreach Committee



#### Framework – GitHub/Jenkins/Ansible

- Initially deployed for Open Networking (Cumulus)
- Playbooks stored in GitHub for version control, change MGMT, and code/peer review
- Playbooks run from Jenkins for centralization, security, auditing, logs, etc. (logs all jobs and results to Splunk)
- Ansible and associated plugins/modules installed on Jenkins server



## Program Committee

The "Heart" of the NANOG Experience

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## **Program Committee**

- The Program is the very heart of NANOG.
- Made up of industry professionals, the PC is selected by the board.
- •The PC self organizes and selects its own leadership.
- •The PC reviews and selects talks submitted by NANOG's community to curate a program of the highest possible quality and relevance.



## **Program Committee Updates**

- In an effort to better serve our community, the PC has several sub-committees:
  - Keynote Speakers
  - Women in Tech
  - Outreach Programs

- Lightning Talks
- Tutorials & Tracks
- Hackathon
- This allows committee members with various types of expertise to focus their knowledge on specific areas important to the development of NANOG programming.



## Get involved on a broader scale

Participating on a broader scale helps ensure our future generations will get to enjoy the same benefits you have.

Ways to get involved at NANOG:

- **Vote:** Become a member to help shape NANOG's future.
- Mentor: The next generation of network engineers.
- **Teach:** The best way to reinforce your knowledge is to teach others.
- Present: Share your knowledge and experience with others.
- Evaluate: Serve on the Program Committee to help shape the NANOG program.
- Sponsor: Support NANOG's education and outreach programs, meetings and events.



## Outreach

Empowering people, and inspiring change.

#### **♦** N A N O G<sup>™</sup>

### What's NANOG Outreach?

Education is central to NANOG's mission. Through outreach to colleges and universities, affiliate NOGs, and more remote tech communities, we're able to provide greater access to NANOG's tools, resources, and educational programming, which is designed and taught by industry professionals committed to the ongoing advancement of the Internet in North America.



## What is our focus?

NANOG Outreach programs are focused on three distinct areas of need:

- Industry education for networking professionals.
- Educational and career development for college + graduate students.
- Training within underserved regions of North America.



## NANOG College Programs

Scholarship winners · NCI



#### NANOG 2021 Scholarships Recipients

Abha Ahuja Scholarship – \$10,000

- Emma Beeler, University of Alaska Fairbanks. Major: Electrical Engineering.
- Lyndsey Tribbitt, University of Florida. Major: Computer Science.

John Postel Scholarship – \$10,000

- Jon Cowart, Penn State University Park. Major: Electrical Engineering.
- Brandon Staple, University of Colorado Denver. Major: Computer Science.



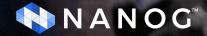
## NANOG College Immersion (NCI) students

- NCI was designed to give educators the opportunity to sponsor up to 5 students at a NANOG conference.
- At at NANOG 84:
  - Ball State University: 4 students + 1 professor
- At NANOG 85:
  - Howard University: 3 students + 1 professor



## New Programs for 2022

Educational Program + Mentorship Program



## **Educational Program**

- Vendor-neutral courses developed and taught by knowledgeable Internet professionals.
- All courses are vetted by a committee of industry professionals; to assure that all content is relevant to current industry working standards.
- The courses are designed to aid students, junior engineers and career professionals advance their skills in a competitive marketplace.



## Mentorship Program

- Key to building the "Internet of tomorrow" is to engage and inspire those who will build tomorrow's Internet.
- Mentorship is an essential component of professional development.
- Mentees in our program will have the opportunity to be guided by seasoned industry professionals.
- Mentors and mentees will be paired at NANOG conferences, create a personalized mentorship program to help the mentee achieve their goals.



## NANOG Ombuds

Confidential support for our community

ombuds@nanog.org





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## NANOG 85 Program

Program Highlights



Join us at this mornings Keynote Presentation!

**Building remotely** during a pandemic. Google's network investments in Africa: the Equiano subsea cable **Sylvie LaPerrière** 



## **Featured Presentations**

- Global NOG Alliance Task Force: Keep Ukraine
  Connected René Fichtmüller + Jan Zorz
- Celebrating the 10th Anniversary of World IPv6 Launch - Scott Hogg
- Panel: World IPv6 Reunion Tour 2022
- Keynote: Building remotely during a pandemic. Google's network investments in Africa: the Equiano subsea cable - Sylvie LaPerrière
- Panel: Women in Executive Leadership: Challenges and Opportunities



## **Peering Coordination Forum**

- The Peering Coordination Forum is 90-minutes in length.
- The forum provides time for attendees to meet and network with others in the peering community present at NANOG.
- The peering forum is a round-robin event that can be described as "speed dating" for network peering.



## **NANOG Social Event**

Location: Bier Markt Address: 1221 René-Lévesque Blvd W Montréal, Quebec



Tonight from 7p – 10p

Sponsored by Montreal Internet Exchange + Team Cymru



## Thank you

We hope you'll join us in building the Internet of tomorrow.

