

A photograph of three people smiling and posing for a photo at a NANOG 91 event. The man on the left has a beard and is wearing a black t-shirt with a green graphic and a yellow lanyard with a badge that says "NANOG 91" and "CyrusOne". The woman in the middle has curly hair and is wearing a dark turtleneck. The woman on the right is wearing a grey cardigan and a patterned scarf. They are all wearing yellow lanyards with "NANOG 91" badges. The background is a dimly lit event space with other people and warm lighting.

# Welcome to NANOG 91

Kansas City, KS  
9 - 12 JUNE 2024



A photograph of two men in a meeting, looking at a laptop screen. The man on the left has a beard and glasses, wearing a maroon polo shirt. The man on the right has glasses and is wearing a light blue hoodie. They are both looking intently at the laptop. The background is slightly blurred, showing other people in a meeting room.

# Network Operators' Groups

Come for the opportunities, stay for the community.

 NANOG™

# What is a NOG?

A NOG is a local Network Operators' Group that is guided by the principle of an open exchange of knowledge and expertise.

- Organizations that support local and regional Internet professionals.
- Formed by network operators, engineers, and other experts in the Internet community.
- Make efforts to improve the quality and availability of the Internet within their regions.

# How can you benefit from NOGs?

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

# What's special about NOGs?

They are:

- **Neutral** – non-commercial, non-political, based on equality.
- **Educational** – technical presentations are freely available.
- **Community Driven** – individual contributors, not corporations.

# What is NANOG?

- North American Network Operators' Group (NANOG) was the first, and is still the largest, Network Operators' Group.
- We are a community-driven nonprofit organization whose roots date back to 1987 when Merit Network was tasked with re-engineering and managing the National Science Foundation Network (NSFNET).
- Originally chartered in 1994 the NANOG community voted for independence from Merit Network in 2011 and became a standalone organization.

# Our community

**13,000+** industry professionals and students.

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

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

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

# What does NANOG do?

- Empowering those supporting Internet access in underserved communities across North America.
- Mentoring the next generation of networking professionals through comprehensive conferences and targeted outreach activities.
- Actively encouraging diversity, inclusion, and collaboration within our community.



A photograph of four people sitting on a stage in white armchairs. From left to right: a woman in a green jacket, a man in a red t-shirt with 'CHI NOG 11' on it, a man in a light blue shirt, and a man in a dark blue polo shirt holding a white cup. They are all wearing lanyards with badges. The background is a purple curtain.

# NANOG Governance

How NANOG is run

# Board of Directors



Leslie Daigle  
Board Chair



Vincent Celindro  
Vice Chair



Michael Costello  
Treasurer



Steve Feldman  
Secretary



Cat Gurinsky  
Member



Dave Siegel  
Member



Stevan E Plote  
Program Committee Chair



Jonathan Black  
Executive Director

# NANOG Staff



Jonathan Black  
Executive Director



Darrioux "Dé" Harvey  
Meeting + Events  
Director



Valerie Wittkop  
Program Director



Claudia Bristol  
Controller + HR



Leigh Brooks  
Senior Designer



Elizabeth Drolet  
Marketing Content  
Creator



Greg Newman  
Software Craftsperson



Shawn Winstead  
Bus. Development  
Specialist

# NANOG Committees

- Program Committee (standing)
- Audit Committee
- Compensation Committee
- Diversity Equity and Inclusion Committee
- Education Committee
- Elections Committee
- Hackathon Committee
- Mentorship Committee
- Scholarship Committee

NANOG 75  
SAN FRANCISCO



### 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

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graph TD; GitHub[GitHub] -- EAP/OCI --> Jenkins[Jenkins/Ansible]; Jenkins -- SSH --> Arista[Arista]; Jenkins -- SSH --> Cumulus[Cumulus]; Jenkins -- SSH --> Citrix[Citrix]; Jenkins -- Nitro API --> Splunk[Splunk]; Jenkins -- social --> Social[Social Icon];
```

# Program Committee

The "Heart" of the NANOG Experience

# Program Committee (PC)

- PC nominated by the members and selected by the board.
  - Made up of industry professionals.
  - PC Chair is an ex-officio member of the NANOG Board of Directors.
- PC reviews and selects talks submitted by NANOG's community to curate a program of the highest possible quality and relevance.

# Program Committee Responsibilities

- Keynote Speakers: There are normally two chosen from industry luminaries
- Lightning Talks : Five to ten minute talks written on site and selected during the conference
- Tracks: Selecting and scheduling similar content in large blocks
- Tutorials: Well known speakers who will present on common interests on a recurring cycle
- All other presentation material during the conference

A photograph of a woman with glasses and a blue quilted jacket speaking into a microphone at a conference. She is smiling and looking towards the right. The background shows other attendees seated at tables, some looking towards the speaker. The scene is dimly lit, typical of a conference room.

# Additional Programs + Resources



# Educational Program

- Vendor-neutral courses developed and taught by knowledgeable Internet professionals.
- Courses are vetted by a committee of industry professionals to assure content is relevant to current industry standards.
- Courses are designed to help students and career professionals advance their skills in a competitive marketplace.

# Mentorship Program

- Mentorship is an essential component of professional development.
- Mentees in our program have the opportunity to be guided by seasoned industry professionals.
- Mentors and mentees are paired to create a personalized mentorship program to help the mentee achieve their goals.

# 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.
- **Present:** Share your knowledge and experience with others.
- **Volunteer:** Serve on a committee to help shape NANOG.
- **Sponsor:** Support NANOG's education and outreach programs, meetings and events.

# NANOG Ombuds

Confidential  
support for our  
community

[ombuds@nanog.org](mailto:ombuds@nanog.org)



# NANOG + Industry Resources

- NANOG Mailing List: <https://mailman.nanog.org/mailman/listinfo/nanog>
- Conference Presentations + Tutorials:  
<https://www.youtube.com/user/TeamNANOG/>
- Articles:  
<https://www.nanog.org/stories/>
- Additional Industry Resources:  
<https://www.nanog.org/> select Community menu item
- Mentorship Information and Application Form:  
<https://www.nanog.org/outreach/nanog-mentorship-program/>  
<https://www.nanog.org/outreach/mentee-application-form/>
- Join the community driven Discord beta [link expires 1 July 2024]  
<https://discord.gg/KqubYuanmR>



# NANOG 91 Kansas City

How to make the most out of your time here



# NANOG 91 Ombuds



**Future Cain**  
CEO of Future of SEL



**Justin Williams**  
Associate, Future of SEL

# PROGRAM

## General Session + Breakout Room

- NANOG 91 has 30 talks on various topics, presented in either the General Session (City Beautiful D/E) or the Breakout Room (City Beautiful B/C).
- Make sure to ❤️ the talks you don't want to miss and add them to your calendar.
- Floor plans to help you navigate are at the bottom of the NANOG 91 Agenda here: [nanog.org/agenda](https://nanog.org/agenda)





# Get Social!

## **MONDAY**

- Networking Lunch
- Peering Coordination Forum
- NANOG Social

## **TUESDAY**

- Diversity, Equity, + Inclusion Lunch
- Networking Lunch
- Beer n' Gear
- Sponsored Social \*

## **WEDNESDAY**

- Two hour lunch block - get a meal and network with new contacts you made this week


# NANOG 91 Surveys

- Online Surveys
  - <https://www.nanog.org/surveys>
    - Daily Survey available for Monday, Tuesday, Wednesday  
Complete the daily survey each day to enter the drawing for a \$100 gift card.
- Surveys close Friday, 14 June 2024

A photograph of three people, two men and one woman, smiling and looking at a laptop screen. They are in a workshop or hackathon environment. The man on the left has a name tag that says 'Akshat'. The woman on the right has 'NOW' written on her sleeve. The background is slightly blurred, showing other people and equipment.

# Thank you

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

 **NANO**<sup>TM</sup>

AKSHAT  
HACKATHON