



# Conference Opening

Edward McNair  
NANOG Executive Director



NANOG®

**Welcome to Seattle!**



# Fun Facts about Seattle

- Seattle is a derivative of the Suquamish name “Sealth.” Sealth was a chief of the Suquamish tribe when the first white settlers arrived in 1851.
- The very first Starbucks opened in 1971 at Pike Place Market, a few blocks away.
- It doesn't rain here, it drizzles – Seattle doesn't even make the top 10 of rainiest cities in the US.
- Cats, dogs and kids – in that order. Cats outnumber dogs by 17% and kids by 50%.
- Birthplace of Music Pioneers – Jimi Hendrix, Heart, Kenny G, Nirvana, Sir Mix-A-Lot, Kenny Loggins, Dave Matthews and Soundgarden

# Conference Statistics

View the statistics all week long on our Meeting Statistics page

<https://www.nanog.org/events/nanog-88/meeting-stats/>



**95 Clients**

MEETING WIRELESS SSIDs

NANOG

[WPA3 Secured (2.4Ghz, 5Ghz, 6Ghz)]

PSK: nanognanog

NANOG-legacy

[Unencrypted network (2.4Ghz & 5Ghz)]

Open — no password required

NANOG-v6Only

[Unencrypted network (2.4Ghz & 5Ghz)]

Open — no password required

Need assistance?

Email: [nanog-eng@nanog.org](mailto:nanog-eng@nanog.org)



**Meeting Host Sponsor**



# Amazon Web Services

**NANOOG 88 Host Sponsor**



**Rob Kennedy**

*(He/Him)*

VP, Border Network  
Engineering

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**AWS**



**Les Williams**

*(He/Him)*

Sr. Infrastructure BD  
Interconnection



# AWS - AS16509

*Secure, extensive, and reliable Global Cloud Infrastructure, for all your applications*

## 31 Launched Regions

Each with multiple Availability Zones

## 99 Availability Zones

within 31 geographic regions around the world

## 450+ Points of Presence

400+ Edge Locations and 13 Regional Edge Caches



33 Local Zones  
29 Wavelength Zones  
for ultralow latency applications

245 Countries and Territories Served

115 Direct Connect Locations

# AWS - AS16509: Network Development Highlights

*Secure, extensive, and reliable Global Cloud Infrastructure, for all your applications*

**400G Network Innovation  
at Scale**

**World Class Streaming  
Service (Live & VoD)**

**Clos Fabric  
Innovative Network Design**

**Automated Peering,  
Interconnect & Embeds**



**RPKI & Encryption  
Routing Security**

**Automated Core Network  
and Network Operation  
Processes**



# AWS Open House



Become Cloud Practitioner Certified

AWS Skills Center Free Training

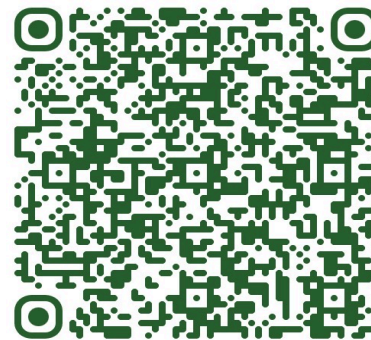
Games & Cloud Discovery Space  
AI, Robotics, Space, ML



Technology Display & Portal Demos  
Room 308: Quilcene



@N88 STOP BY  
▪ 302 Quilcene  
▪ 708 Clear Water

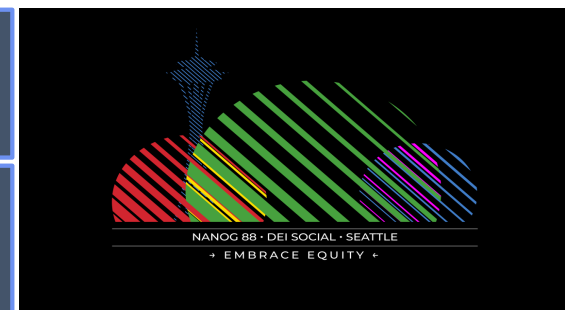


The Spheres  
Home > 40,000 plants from the cloud forest regions of > 30 countries.

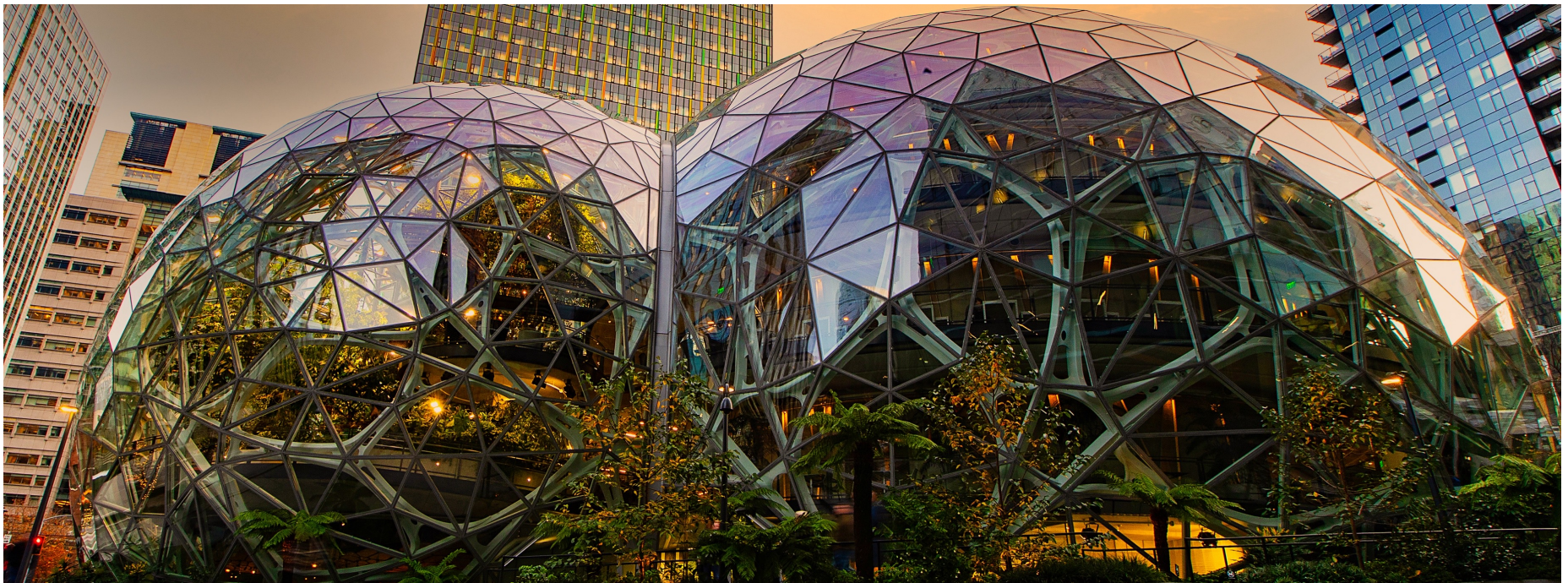


DEI

NANOG Outreach & NCI



# Thank you! & Welcome to NANOG 88



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TO OUR  
SPONSORS**



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EST. 2018



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**SEGRA<sup>®</sup>**



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# Beer 'N Gear Sponsors

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VIAVI  
VIAVI Solutions



# Peering Sponsor

**JPIX**

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# Breakfast Sponsors



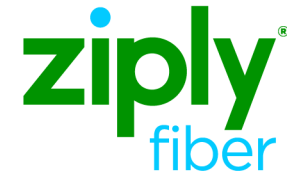
# Lunch Sponsors



# Break Sponsors



# Social Event Sponsors



# Service Sponsors





# NANOG Ombuds



**Future Cain**  
CEO of Future of SEL



**Tony Farmer**  
Associate, Future of SEL

# Code of Conduct

## We will not tolerate the following:

- Aggressively pushing your own services, products, or causes.
- Distribution or consumption of alcohol at NANOG-sponsored in-person venues (alcohol not served by hotel-licensed providers).
- Audio or video recordings of the few sessions where such recording is not permitted.

# Code of Conduct (Cont.)

**We will not tolerate the following:**

- Offensive verbal comments or physical contact because of sex, sexual orientation, gender identity, gender expression, age, disability, physical appearance, personal appearance, race, color, national origin or religion (or lack thereof).
- Sexual images of any kind, displayed in public spaces.
- Deliberate intimidation, stalking, threatening, or following.

# Code of Conduct (Cont.)

**We will not tolerate the following:**

- Harassing photography or recording of any kind.
- Sustained disruption of a presentation or other event.
- Inappropriate physical contact.
- Unwelcome sexual attention.

# Code of Conduct (Cont.)

**We will not tolerate the following:**

- Engaging in any activity that is illegal, or violates NANOG's or its sponsors' contracts with venues or contractors.
- Demeaning or disruptive behavior or speech.

# **JUNETEENTH**

## **Washington History**



**1890**

**1980**

**2002**

**2012**

**2018**

**2020**

**2021**

**PRIDE MONTH**



# DEI Committee

The [webpage](#) is now live!

Visit [nanog.org/dei](https://nanog.org/dei)

We have 14 committee members



# DEI Activities

- Scavenger Hunt
  - Google Form
    - Monday 6/12 at 3:30 pm
    - Tuesday 6/13 at 8 am
- WiT Mixer “Embracing Equity” Inaugural Event
  - June 12th
- Networking at Lunch Tables
  - Variety of topics



NANOG

Don't see one you like? Make a suggestion for NANOG 89.

# NANOG Ombuds

Confidential  
support for our  
community

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





# Program Overview

**Cat Gurinsky**

NANOG Program Committee Chair

# Program Committee Members

Cat Gurinsky - Chair

Stevan Plote- Vice Chair  
Plote & Associates

Chris Woodfield - Secretary  
DriveNets

Melchior Aelmans - Member  
Juniper

Kam Agahian - Member  
Oracle

Aaron Atac - Member  
Akamai Technologies

Phil Bedard - Member  
Cisco

Jason Bothe - Member  
Moody's Corporation

Dan Chioreanu- Member  
Apple

Kate Gerry - Member  
NetActuate, Inc.

Mikael Holmberg - Member  
Extreme Networks

Marcus Holt- Member  
JMF Solutions

Manish Krishnan- Member  
Google

John Kristoff - Member  
NETSCOUT

Nimrod Levy- Member  
AT&T

Marlin Martes - Member  
Amazon Web Services

Fearghas McKay - Member  
FLEXOPTIX GmbH

Sergey Myasoedov - Member  
NetArt Group

Charles Rumford- Member  
Deft

James Shank - Member  
SpyCloud

Mike Starr - Member  
trackd

Adair Thaxton - Member  
Internet2

Steve Ulrich - Member  
Arista Networks

Michael Voity - Member  
University of Vermont

Les Williams- Member  
Amazon Web Services

# Program Notes

- This meeting features tracks and talks on the following topics:
  - API's & Automation
  - Inclusive Hiring
  - BGP
  - RPKI
- Tutorials on:
  - pyGNMI and ChatGPT
  - BGP Techniques



## **Len Bosack** **Keynote Speaker**

**Today's Keynote Presentation**

**"From Data Links to Internets:  
A Quick Tour"**

# Program Tips

- Virtual Chat How-To:
  - Use the “Chat” tab to talk with other attendees
  - Use the “Q+A” tab to ask a question during a presentation
    - Even in person attendees can submit questions this way!
  - Use the “Help” tab to receive technical support
- Agenda + Presentation Materials

# Submit Lightning Talks!

- Reminder Lightning Talks are **in person**
- Two lightning talk time slots this meeting:
  - 5:30pm-6pm PDT Tuesday
  - 4:15-4:45pm PDT Wednesday
- Submit abstracts by 3:30 PM PDT the day before you wish to speak
- PC will send notifications the evening prior
  - Include cell # in profile to be notified via text!
- Final slides due 12:00 PM PDT day of presentation



# NANOG 88 Surveys

- Surveys online
  - <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.
    - Hackathon Survey available
- Surveys close Friday, June 16, 2023



**Enjoy our Program**