



# Conference Opening

**Tina Morris**  
NANOG Board Chair

**Thanks for joining us in-  
person or virtually!**

# Welcome to NANOG 83

- Our first in-person meeting in 21 months!
- Also our first hybrid meeting featuring in-person + virtual attendees
- 307+ In-person Registrations
- 198+ Virtual Registrations

# Keeping our Community Safe

- In order to host everyone safely, we required all in-person attendees to be fully vaccinated against COVID-19.
- We understand that the decision was not without its controversy.
- However the NANOG Board + Staff thought it was the best way to protect the health + safety of our community.



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# Monday Break Sponsors



**ARISTA**

The word 'ARISTA' is displayed in a large, bold, dark blue, sans-serif font, centered on the page.



# Tuesday Break Sponsors

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# Host Sponsor

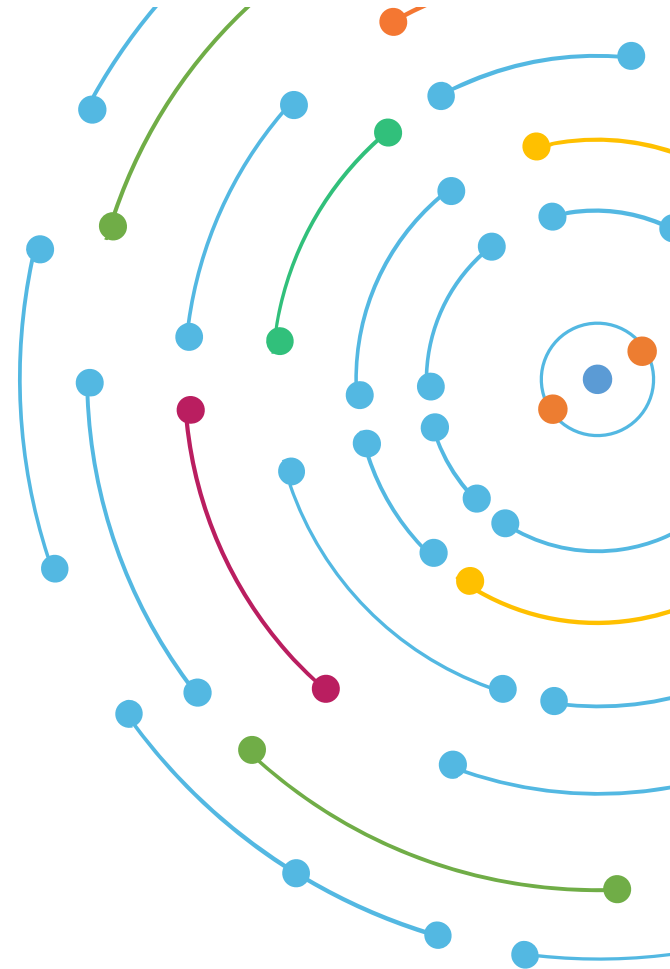
**Avi Freedman**  
Kentik





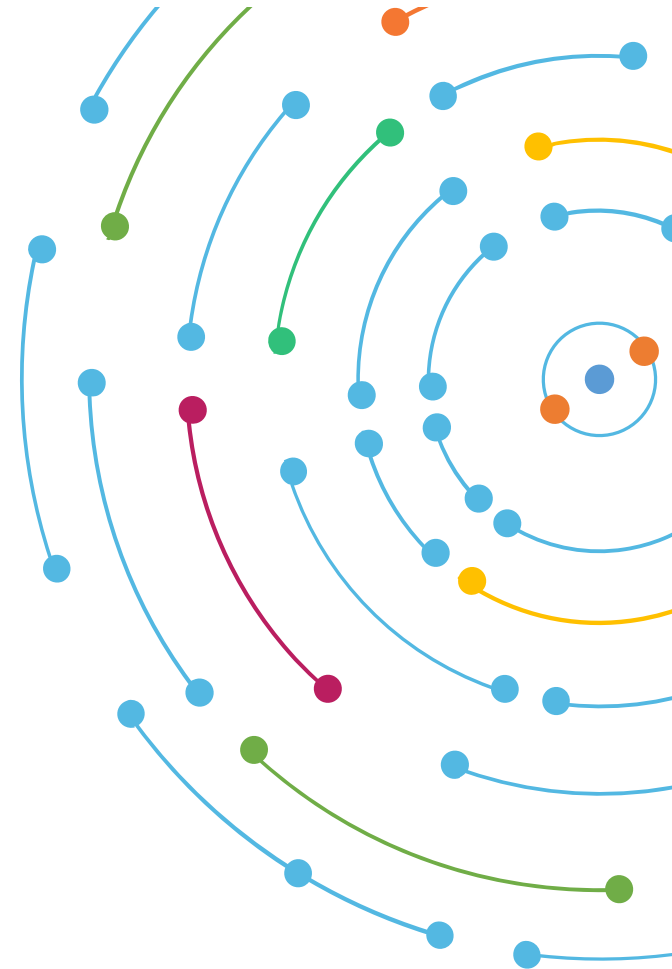
NANOG83 - Welcome!

[avi@kentik.com](mailto:avi@kentik.com)



## Proud to host!

- Welcome to a hybrid NANOG 83!
- First time semi-physical host, long-time participant
- What is NANOG about?
  - Community and education
  - Formal and informal



# Kentik Background: Network Observability

## TELEMETRY

TRAFFIC + BGP + SYNTHETICS

100s

SERVICE PROVIDERS

100s

ENTERPRISE CUSTOMERS

## NETWORKS

CLOUD, INTERNET, ON-PREM

BILLIONS

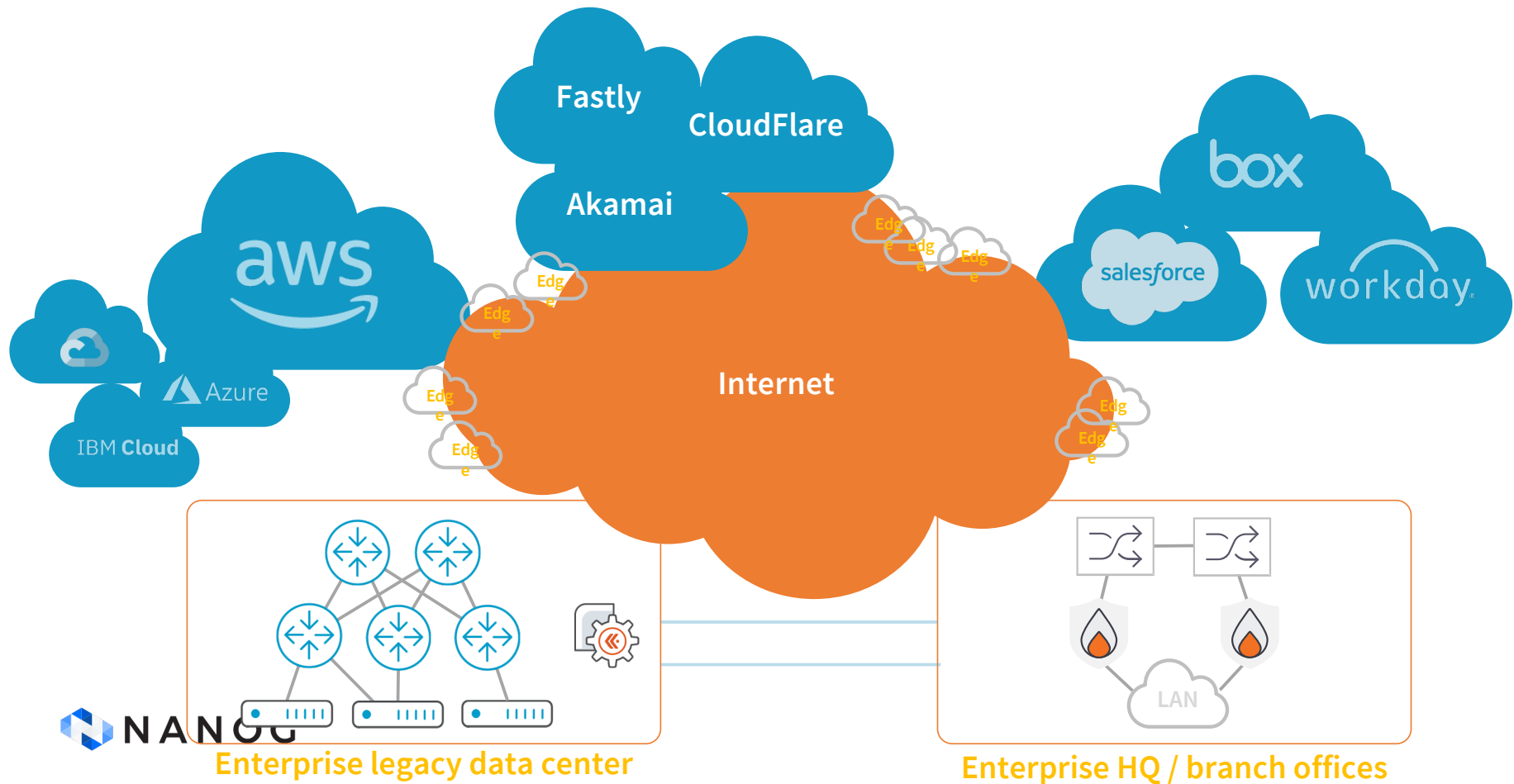
INTERNET MEASUREMENTS

TRILLIONS

OF FLOWS/DAY



# NANOG (and the internet) are diverse!



# NETWORK **OBSERVABILITY**

Has gotten harder!

When will we be at capacity?

Is the network the problem?

Are we under attack?

What should I be performance testing?

What's driving latency in the east?

What will my cloud costs be in...?

# Great Network Observability

Kentik provides observability across all networks - and suggests and makes action easy



**See All Networks**



**Collect All Telemetry**



**Query with Context**



**Ask Anything**



**Proactive Insights**



**Take Action**



# The Kentik Network Observability Cloud

PRODUCTS

CORE

EDGE

SYNTHETICS

PROTECT

CLOUD

SP ANALYTICS

PLATFORM

**KENTIK NETWORK OBSERVABILITY CLOUD**

INGEST | ENRICH | STORE | QUERY | INTEGRATE | LEARN

TELEMETRY &  
DATA PIPELINE



Flows &  
VPC Flow Logs



Routing



Synthetics



Hosts



SNMP



Streaming  
Telemetry



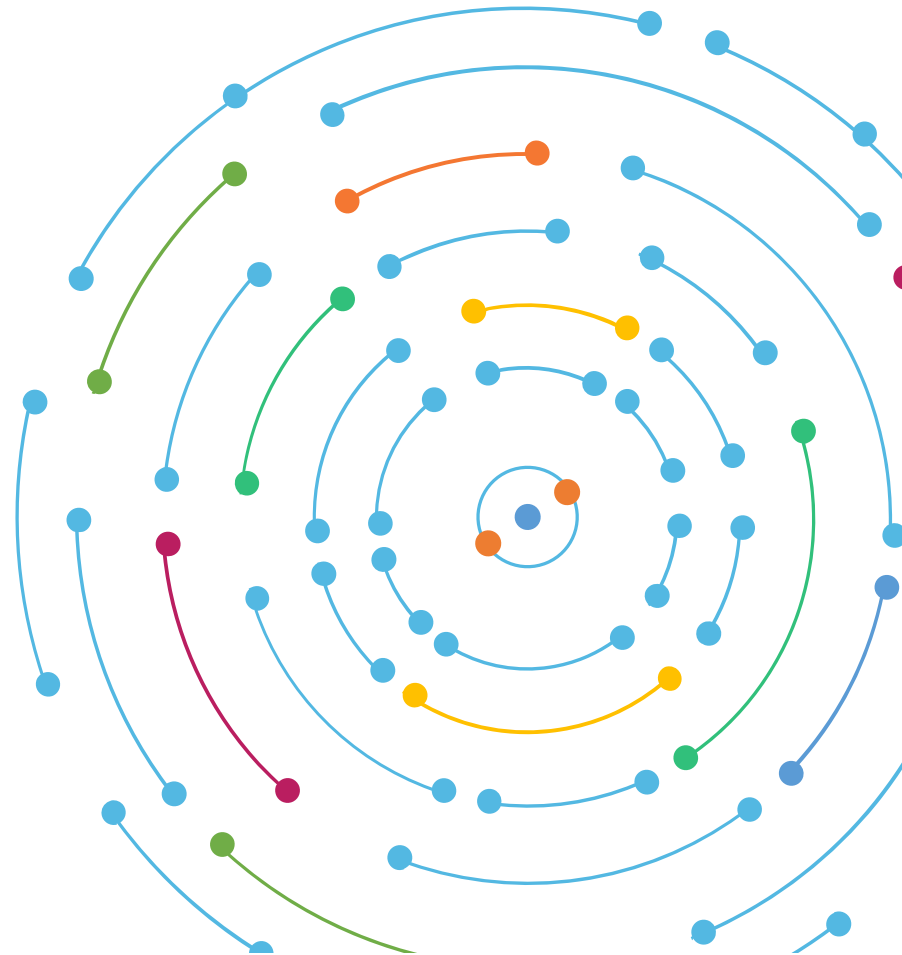
+ Context: BGP, Geo, DNS. User, App, k8s, Cost, Threat,  
...

# What's New @ Kentik

- Performance testing
- Cloud
- Network cost workflows
- White label portal
- BGP monitoring
- Terraform, Ansible, Python SDK
- New Relic, Prometheus, Influx, Splunk, Kafka integrations
- Open source (Kentik Labs) telemetry pipeline and agent software

Thanks + Enjoy NANOG!

[avi@kentik.com](mailto:avi@kentik.com)





# Program Overview

**Cat Gurinsky**

NANOG Program Committee Chair

# Welcome Back! Our first hybrid

- We had 4 virtual only conferences (N79, N80, N81, N82)
- NANOG 83 is our first hybrid conference with attendees and speakers attending both remotely and in person
- We plan to continue to offer speakers the option to present remotely at future conferences
- NANOG 84 in Austin, TX is also planned to be hybrid

# Program Notes

- 19 peer-reviewed presentations, including keynotes
- 26 members of the NANOG Program Committee
  - Moderating program sessions and networking sessions
  - Self-governing

# Program Committee Members

Cat Gurinsky - Chair  
Apple

Ognian Mitev - Vice Chair  
Charter Communications

Elizabeth Culley - Secretary  
Comcast

Michael Costello -  
Hackathon Committee  
Netflix

Kat Ronay - Outreach  
Committee  
Microsoft

Melchior Aelmans - Member  
Juniper

Aaron Ali Atac - Member  
Akamai Technologies

Jeff Bartig - Member  
Internet 2

Tom Beecher - Member  
Yahoo

Omkar Bhalekar - Member  
Tesla

Jason Bothe - Member  
Moody's Corporation

Hao Fu - Member  
Salesforce

Tom Kacprzyński - Member  
Oracle

John Kristoff - Member  
NETSCOUT

Alex Latzko - Member  
Deft.com

Marlin Martes - Member  
Amazon Web Services

Steve Meuse - Member  
Kentik

Stevan Plote - Member  
Plote & Associates

Jingjing Ren - Member  
Netflix

Matt Ringel - Member  
Subspace

Alankar Sharma - Member  
Comcast NBC Universal

Yordan Sutanto - Member  
Schlumberger

Anna Valsami - Member  
Subspace

Michael Voity - Member  
University of Vermont

Edward Winstead - Member  
Internet Systems Consortium

Chris Woodfield - Member  
Twitter



# 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

# Program Notes

- Newcomers Orientation
  - We live streamed this, if you missed it check out our YouTube channel next week for the video.
- Women in Tech lunch
  - In person and Zoom options tomorrow (Tuesday)
- Wednesday Lunch - on your own
- If you are attending virtually, we will be streaming the Internet Innovator interviews during the lunch hours.

# Reminders

- Our Call for Presentations are always open, not just for the next NANOG but for the ones after as well
- Your feedback on the surveys is more important than ever, let us know what worked, what didn't work and how we can improve this hybrid experience going forward!
- One of Monday's survey questions will be used during a Tuesday presentation, so please try to complete that survey tonight!

# NANOG 83 Surveys

- Surveys online
  - <https://www.nanog.org/surveys>
    - Daily Surveys available for Monday, Tuesday, Wednesday
    - Hackathon Survey available
  - Surveys close Friday, November 5, 2021

# Susan A. Forney

October 25th, 1958 - September 8th 2021

<https://www.memoriesofsusan.org>



Enjoy the program

