



Annual Report

2025

Enabling Research and Education Through Technology and Community

Contents

Letter From the CEO	1
A Tribute to Our Former CEO Howard Pfeffer's Contributions	2
About Internet2	3-4
Powering the Infrastructure of Research and Discovery	5-8
Strengthening International Partnerships to Advance the Global R&E Mission	9-11
Accelerating the Adoption of Emerging Technologies	12-13
Building Community, Driving Impact	14
Strengthening Trust, Security, and Identity Across R&E	15-17
Bridging Gaps, Scaling Discovery	18-19
Convening the R&E Community to Solve Shared Challenges	20-21
Financial Overview	22
Looking Ahead to 2026	23
Acknowledgements	24-26
Glossary	27-28

2025 Highlight

In 2025, following a comprehensive nationwide search, the Board of Trustees selected Tripti Sinha as the 4th President and CEO of Internet2 — ready to expand upon our collective successes and deliver new value to uplift the research and education community.

Letter From the CEO

I am genuinely honored and excited to share the 2025 Internet2 Annual Report with you. I stepped into this role with immense enthusiasm and a deep respect for the nearly 30-year legacy of this organization. Having personally dedicated more than 30 years to advancing cyberinfrastructure, internet technologies, and policy within the research and education (R&E) community, I am committed to bringing that strategic vision, technical depth, and proven leadership to our collective future.

I want to take a moment to express our community's sincere gratitude to my predecessor, Howard Pfeffer. His eight years of dedicated service to Internet2 were instrumental in strengthening our foundation and advancing our mission. We wish him all the best in his future endeavors.

Reflecting On 2025

I am pleased to present the accomplishments of 2025, which highlight the incredible achievements and progress across our community. This past year, Internet2 continued to deliver essential value to the R&E community through our critical infrastructure, services, convening, and programs.

The Internet2 network, alongside our integrated services, functions as the essential nervous system for advanced discovery, providing the secure, high-speed, and trusted infrastructure that accelerates innovation and enables research and scientific breakthroughs. For nearly 30 years, Internet2 has empowered and enabled the R&E community by providing the foundation of trust, technology, and collaboration that allows for global, scalable discovery.

The past year has truly underscored the collaborative power unique to our community. From the proliferation of Generative AI and the expansion of cloud services to potential breakthroughs in quantum technologies, we stand at a transformative moment together, navigating a landscape shaped by rapid technological advances and forces that are fundamentally restructuring research and global collaboration.

Additionally, the R&E community is once again facing unprecedented times and navigating a period of financial and operational uncertainty. Institutions are under increasing pressure to manage resources efficiently while simultaneously implementing new and complex strategies to keep pace with innovation.



Moving Forward

My foremost commitment is to ensure Internet2 remains dedicated to its core mission: to support and enable the R&E community as we collaborate on mission-critical infrastructure and services that collectively advance our community's academic, research, and service goals. As we have always done, we will navigate these complex challenges as one. We will leverage our collective expertise to strengthen the trust fabric essential for inter-organizational collaboration, enhance our privacy and security models, and ensure our community remains competitive and agile. Education, research, discovery, and innovation know no national boundaries. Therefore, collaboration with our global R&E community and national R&E networks (NRENs) is an absolute must. We will continue to accelerate our partnerships around the world to support our community.

I encourage you to explore the dedicated sections of this Annual Report, where you will read more about our 2025 accomplishments in detail. These highlighted achievements demonstrate the tangible results of your partnership, investment, and ongoing engagement with Internet2.

None of these achievements would be possible without the unwavering support of our members and stakeholders, the insightful guidance of the Internet2 Board of Trustees, the dedicated work of our community advisory groups, and the tireless work and passion of the Internet2 team.

The R&E community is truly like no other. I am excited to work with all of you as we navigate the next chapter of Internet2, together. Rest assured, Internet2 is here to support you.

Tripti Sinha
President and CEO, Internet2



A Tribute to Our Former CEO Howard Pfeffer's Contributions

We recognize and express our sincere gratitude for the service and contributions of Howard Pfeffer, who served as President and CEO of Internet2 from 2017 through 2025. During his eight-year tenure, Howard provided consistent strategic direction, ensuring that Internet2 strengthened its role in supporting global R&E. He was dedicated to making Internet2 a trusted, valued, and sustainable organization, strengthening its deep commitment to community and innovation, modernizing the organization, and stabilizing its financial outlook. Howard's impact is summarized by several key areas of organizational transformation:

Strategic Vision & Community

Howard oversaw the development of the community-led Five-Year Roadmap, a blueprint that established trust with core stakeholders, including higher education chief information officers, regional networks, federal affiliates, research partners, and industry members. Under Howard's leadership, Internet2 reached an all-time high, increasing higher education membership by over 10%, while successfully navigating the unprecedented challenges of the COVID-19 pandemic.

Fiscal Sustainability

Howard led Internet2 through a significant financial turnaround, delivering eight years of positive bottom-line revenues and growing operating reserves. He retired all debt while funding the Next Generation Infrastructure (NGI) upgrade and enabling the organization's growth to support its mission.

Federal & International Partnerships

Howard led efforts to rebuild partnerships with critical federal agencies, including the National Science Foundation (NSF). During his tenure, Internet2 secured multiple NSF awards that benefited the community, supporting national R&E efforts

such as the Exploring Clouds for the Acceleration of Science (eCAS) project, the National Artificial Intelligence Research Resource Pilot's (NAIRR) annual meetings and community outreach, the Minority Serving – Cyberinfrastructure Consortium's (MS-CC) programs, and the Research Computing and Data Resource and Career Center (RCD Nexus) initiative. Additionally, Internet2 significantly expanded its partnerships with the National Oceanic and Atmospheric Administration (NOAA) Office's N-WAVE, as well as its collaboration with the National Institutes of Health (NIH) on InCommon. He also strengthened North American and global R&E connectivity initiatives through multiple collaborations (e.g., the North America R&E Exchange and the Advanced North Atlantic collaboration) and expanded international network capacity in both the Atlantic and Pacific.

Service & Technical Innovation

Under Howard's guidance, Internet2 launched critical new services, including Cloud Connect, the Insight Console Network Automation, the eduroam Support Organization program, and InCommon Baseline Expectations. He refocused the NET+ portfolio on community-driven impact, including pioneering AI services like Cloud GPUs and the LLM Gateway. Additionally, he oversaw Internet2's groundbreaking effort to build a hyperscale AI research network, successfully completing its first phase, establishing 57.6 Tbps of connectivity between two data centers 300 km apart.

Organizational Maturity

Howard matured the organization's internal operations and hired an outstanding leadership team that continues to drive the organization forward.

We thank Howard for his dedication and commitment to advancing the service missions of the R&E community.

We thank him for his service and lasting contributions, and we wish him the very best in all that lies ahead.



Our Shared Mission

Internet2 empowers the R&E community to solve technology challenges together that no single institution can solve alone.

We provide high-performance infrastructure and integrated cloud solutions, a secure trust fabric, and collaborative forums that allow U.S. higher education and research institutions to drive the next generation of scientific and academic discovery.

National High-Performance Infrastructure

Delivers a resilient, secure, and automated network built for the most advanced scientific applications with a reduced environmental footprint.

Seamless Global Access

Provides secure Wi-Fi at over 44,000 locations and facilitates worldwide collaboration through connectivity with international R&E networks.

Community-Powered Cloud Solutions

Streamlines access to major cloud providers through community-powered procurement, pre-negotiated terms, and customized R&E services.

Advanced Identity & Security

Establishes trust frameworks and access management tools that protect institutional data while enabling seamless cross-border collaboration.

Community-Driven Innovation

Convenes R&E peers to co-create custom infrastructure, solve shared challenges, and transcend institutional boundaries.



“

When research and education leaders come together as a community, the conversation shifts from isolated problem-solving to shared momentum. You quickly realize you're facing the same constraints so the work feels less like a local struggle and more like a collective challenge.”

Leo Howell

Vice President for IT and CIO,
Georgia Tech

2025: A Year of Impact

By the Numbers

2025 ANNUAL REPORT | 4

In 2025, Internet2 expanded its reach, strengthened its infrastructure, and deepened its impact — connecting and empowering the research and education community.

MEMBERSHIP

345+

U.S. Universities

61

Industry
Collaborators

46

Regional and State
R&E Networks

34

Federal
Agencies

23

Leading Non-Profit
Institutions

2025 Highlight

Through our support of the MS-CC in 2025, Internet2 is expanding participation across 300+ institutions, including 87 HBCUs, 20 TCUs, and 43 HSIs. This engagement strengthens campus capacity and creates new pathways for a broader range of institutions to benefit from our collective ecosystem.

SCALING INSTITUTIONAL CAPABILITIES

\$4.97M

in annual value delivered through community-vetted cloud connectivity services.

300K

websites secured via the InCommon Certificate Service, protecting the integrity of the R&E web presence.

1,300+

active NET+ contracts serving 600+ universities, delivering a portfolio of vetted, campus-ready cloud solutions.

672

Cloud Connect and 72 Rapid Private Interconnect connections enabling seamless, high-speed data movement between campuses and providers.

1,500+

professionals upskilled through the InCommon Academy, equipping the R&E workforce with the critical expertise required to navigate the complexities of modern identity and access management.

BROADER COMMUNITY SERVED

1,000+

InCommon Participants

80K+

Community Anchor Institutions

70

National R&E Network Partners
Representing 100+ Countries

LOCAL AND GLOBAL MOBILITY

1,000+

U.S. eduroam subscribers, ensuring seamless, secure roaming for students and faculty across the R&E landscape.

44K+

eduroam hotspots worldwide, including a growing footprint of 1,173 U.S. K-12 hotspots that bridge the gap between higher education and local communities.

514

Members

In 2025, Internet2 added nine new higher education institutions. Overall, Internet2 reached 514 members total, the highest level of membership in Internet2's history.

Powering the Infrastructure of Research and Discovery

In 2025, Internet2 continued to improve its network services, capabilities and tools to further enable research, science, and discovery.

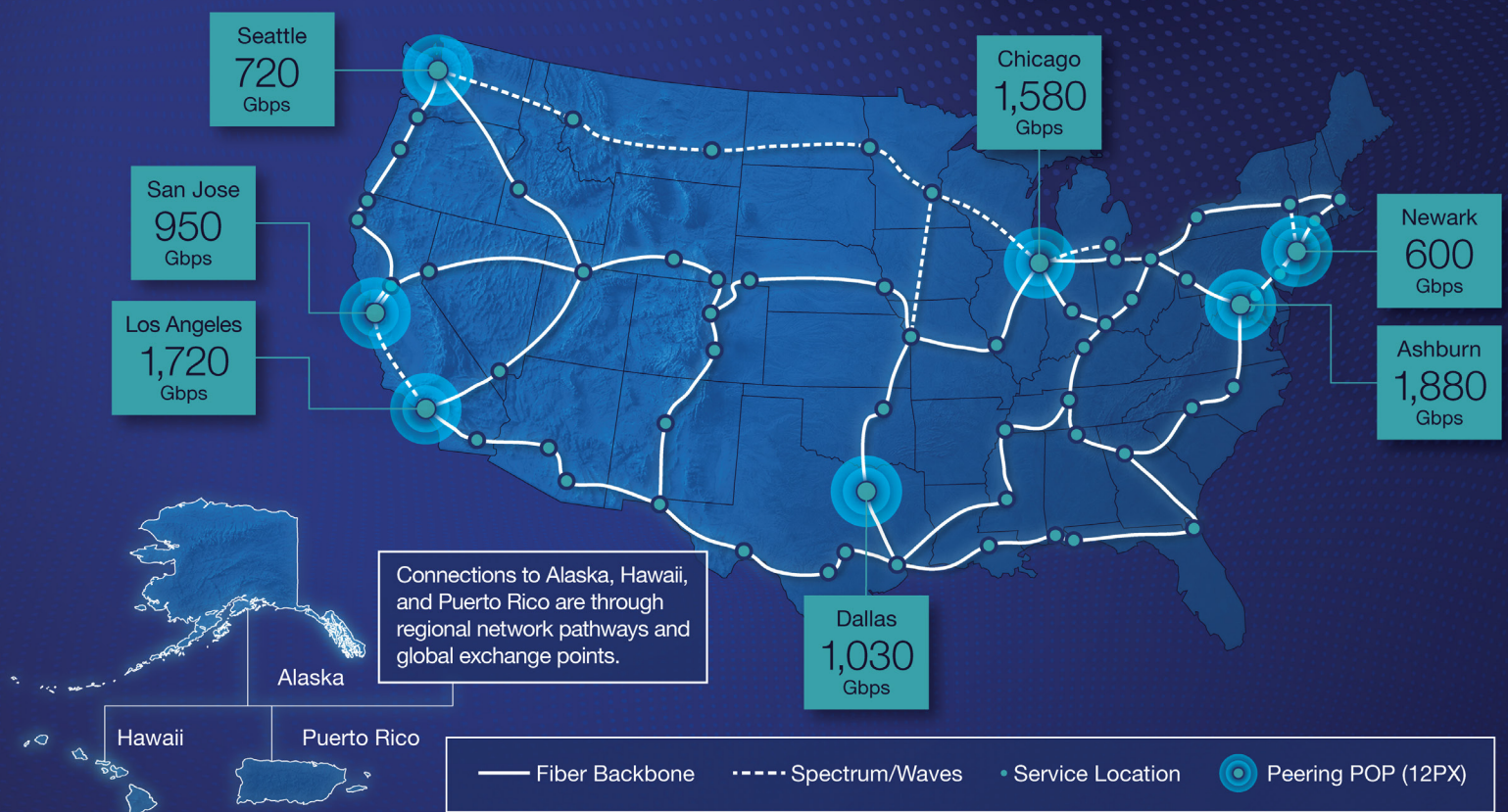
Enhancing Network Visibility and Cloud Control

During 2025, Internet2 significantly expanded capabilities within the Insight Console, delivering three major enhancements that strengthened network management and cloud connectivity for our R&E community.

Geographic Expansion: Internet2 Cloud Connect services now reach seven metropolitan areas, adding Seattle, Los Angeles, and Newark to our existing presence in Ashburn, Dallas, Chicago, and San Jose. This expansion in geographic reach provides members with greater flexibility and reduces latency in connecting to cloud providers for institutions across the country.

Route Policy Support: The Virtual Networks Cloud Router now includes comprehensive Route Policy capabilities, enabling members to implement their own virtual router within Insight Console with sophisticated traffic engineering and routing controls.

BGP Route Report: A new self-service diagnostic feature provides network operators with complete visibility into BGP routing announcements, acceptance status, and security posture—including RPKI-ROA adoption and IRR consistency. This transparency helps members proactively identify and resolve routing issues while strengthening overall routing integrity for the community.



Powering the Infrastructure of Research and Discovery

Accelerating Diagnostics with AI-Powered Troubleshooting

In 2025, Internet2 launched a new collaborative network intelligence and troubleshooting pilot designed to give network engineers shared visibility and AI-powered tools to resolve interdomain issues faster across institutional boundaries. By packaging Looking Glass code for member deployment and integrating Heuristic Analysis With Adaptive Troubleshooting’s (HAWAT) AI-powered diagnostic capabilities, this pilot enables organizations to participate in a collaborative troubleshooting ecosystem.

Two regional networks, the Utah Education and Telehealth Network (UETN) and OSHEAN of Rhode Island, successfully deployed pilot consoles, validating the deployment model and operational workflows. The pilot culminated in a demonstration at the 2025 Internet2 Technology Exchange, showcasing how we can transform multi-organizational network operations and accelerate problem resolution across the entire community.

In a year defined by the rapid rise of AI, Internet2 partnered with an industry member to build a hyperscale, AI-optimized research network.

This achievement established a network spanning more than 3,400 km, connecting five U.S. data centers with a total capacity of 138+ Terabits per second (Tbps). This purpose-built infrastructure provides ultra-low-latency connectivity essential for distributed AI training and LLM development and is among the highest-capacity dedicated connections for AI research.

Engineers pushed the boundaries of optical networking and deployed the latest optical transponder technology, completing the first phase in three months and the total project in eight months. The project established 52 Tbps of connectivity over a single fiber pair spanning 300 km between two data centers.

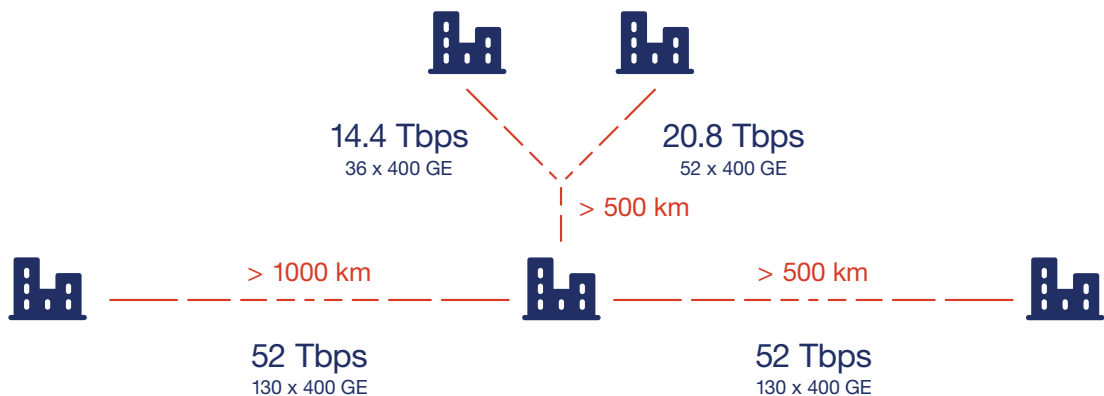
This collaboration strengthens the research and education AI ecosystem, demonstrating how industry and academia can address emerging technical challenges while advancing reliable, responsible AI systems.



Seamless connectivity across the world would be nearly impossible without the community-owned and operated cyberinfrastructure through Internet2.”

Tracy Futhey
Vice President & CIO,
Duke University

Topology of Internet2’s Hyperscale AI Research Network

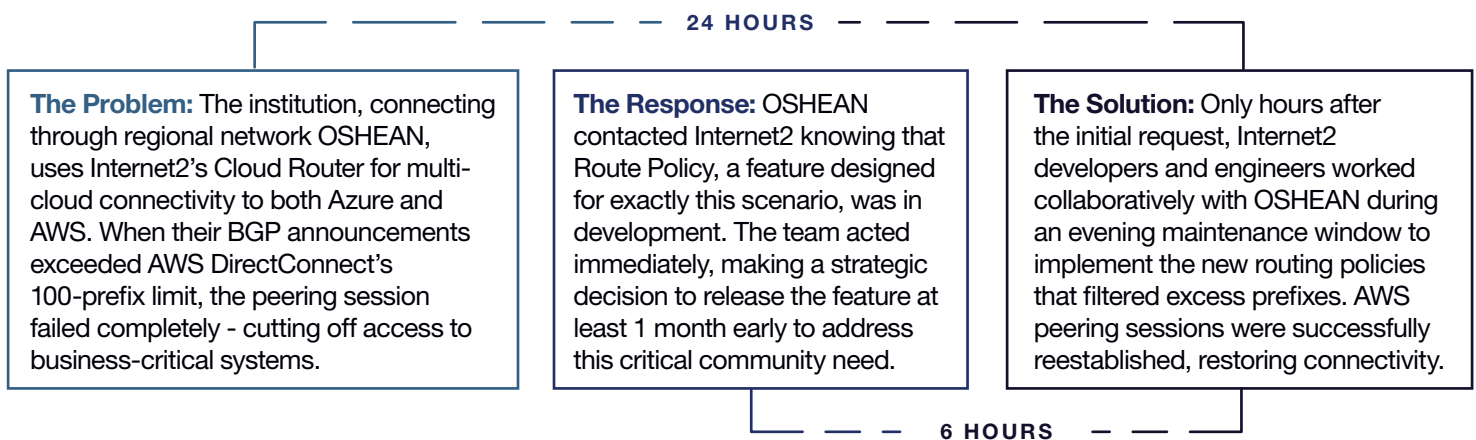


Powering the Infrastructure of Research and Discovery

2025 ANNUAL REPORT | 7

By the end of 2025, Internet2's cloud connectivity services now deliver \$4.97 million in value annually to the R&E community. This figure includes a \$1 million increase over an eight-month period in 2025. This value spans 672 Cloud Connect connections and 72 Rapid Private Interconnect connections across three service tiers.

When a member institution's AWS connectivity failed due to exceeding BGP prefix limits, Internet2's responsive approach turned a crisis into a validation of community-driven development.



Community Value: This incident validates the Route Policy use case and demonstrates Internet2's member-responsive development approach. As institutions adopt increasingly complex multi-cloud strategies, these self-service capabilities through Insight Console enable them to manage sophisticated requirements while maintaining operational resilience.

16K+

16,100 miles of optical fiber: Delivering a resilient, next-generation backbone spanning 74+ national add/drop sites.

47+

Massive throughput: Featuring 47.6 Tbps of total backbone capacity and supported by 150 dedicated 400G backbone circuits and pluggables.

2.6K+

Empowering network engineers: The Internet2 Insight Console averaged 840 active monthly users in 2025, who independently managed over 2,600 secure peerings and Layer 2 connections.

1K+

9.23 Tbps peering capacity: Enabling massive, frictionless data exchange across 1,060 participant autonomous networks.

Powering the Infrastructure of Research and Discovery

National Research Platform (NRP) Performance Assurance Nodes

The global research landscape is increasingly data-intensive, requiring a ‘nervous system’ that is as resilient as it is fast. In 2025, Internet2’s collaboration with the NRP significantly expanded computational resources available to the U.S. research and education community, demonstrating the power of resource sharing across institutional boundaries. The NRP operates as a community-owned platform supported by the National Science Foundation and over 50 institutions, providing free access to cutting-edge technologies including AI resources, high-performance computing, and distributed data storage for nonprofit higher education institutions ranging from community colleges to major research universities.

Internet2 expanded the NRP’s capacity in 2025 by contributing

1.2K+ CPU cores,
6.4 TB of memory, and
80 TB of storage capacity

Internet2 Hosted NRP Nodes



- Internet2 Fiber-Based Backbone
- - - - Internet2 Spectrum-Based Backbone
- Internet2 Point of Presence
- PAS Node Converted to Hybrid NRP Use
- Dedicated OSDF Node

Strengthening International Partnerships to Advance the Global R&E Mission

We work alongside international partners to ensure that data and scholars can move across borders without friction.

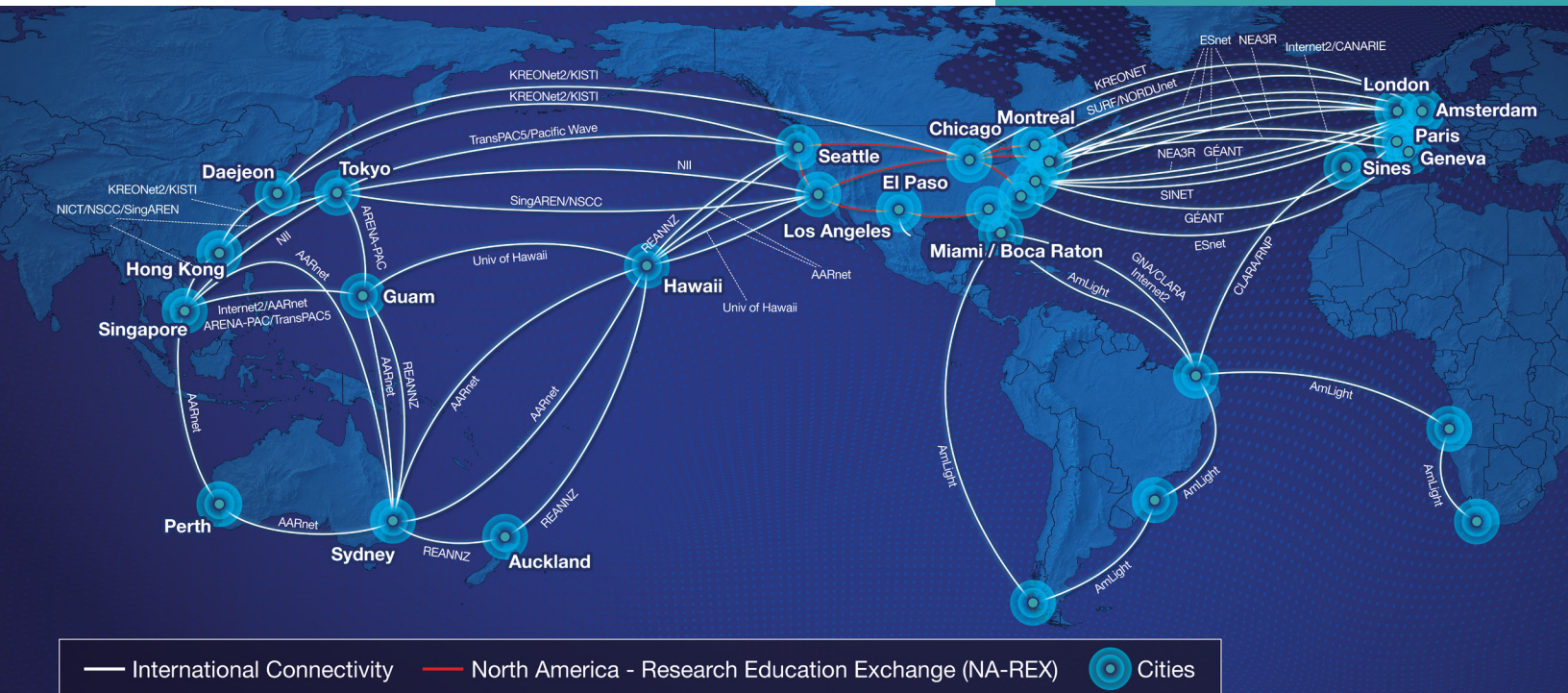
In 2025, Internet2 deepened its role as an active partner in the global R&E community by contributing leadership, technical expertise, and shared resources to strengthen the connections, trust frameworks, and collaborative innovations that allow scholars worldwide to work without boundaries.

Advancing Shared Innovation: Internet2 collaborated with international colleagues through the Global Network Advancement Group (GNA-G) and GÉANT's specialized activities on AI-driven cybersecurity and research engagement strategies. 2025 also marked a milestone: the 20th anniversary of perfSONAR, the open-source performance toolkit Internet2 co-leads with partners across three continents.

Simplifying Global Collaboration: As a principal member of the Shibboleth Consortium—active across 19 countries—and through leadership in Seamless Access and collaboration with the OpenID Foundation, Internet2 worked to make identity and access seamless for students and researchers.

2025 Highlight

In 2025, Internet2 partnered with Pacific Wave, Cal Poly Humboldt, and the California State University Chancellor's Office in signing an MoU with FLAG, one of the world's largest privately owned subsea cable networks, to secure new capacity on the Echo system.



Strengthening International Partnerships to Advance the Global R&E Mission

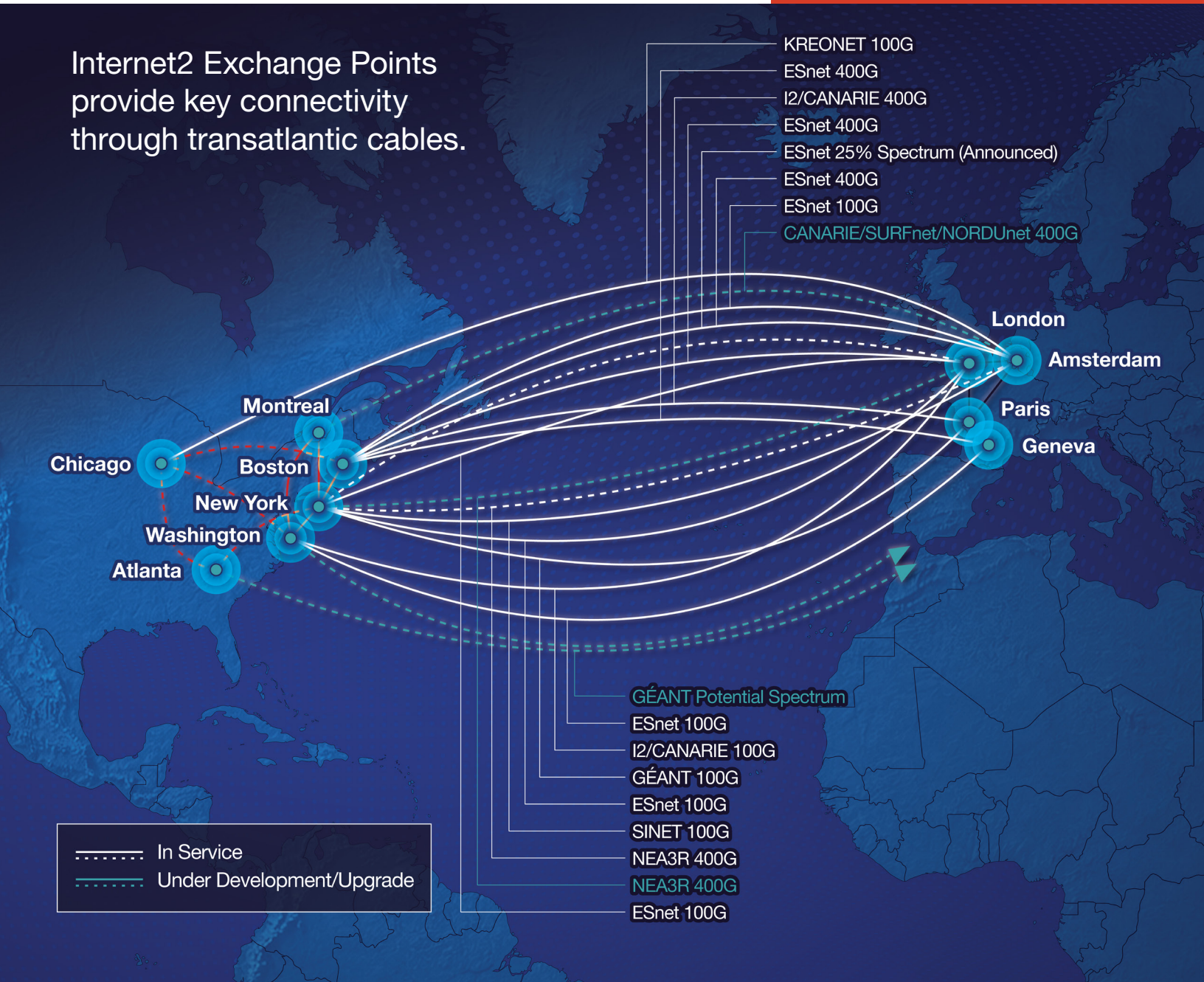
Sustaining Global Connectivity: Internet2 played an active role in community-driven consortia—including ANA, APOnet, and NA-REX—that maintain the transoceanic links and Global Exchange Points essential to data-intensive science, keeping researchers across North America, Europe, and the Asia-Pacific region seamlessly connected.

Strengthening a Global Trust Fabric: Through leadership roles on the eduGAIN Steering Committee, the Global eduroam Governance Committee, REFEDS, and the GÉANT TNC Programme Committee, Internet2 helped shape the policies and technical standards that allow researchers to collaborate across borders securely and with confidence.

2025 Highlight

In 2025, Internet2 completed comprehensive GXP infrastructure upgrades across WIX, BIX, and MAN LAN sites, enabling 400 Gbps of connectivity across the entire exchange point infrastructure.

Internet2 Exchange Points provide key connectivity through transatlantic cables.



Strengthening International Partnerships to Advance the Global R&E Mission

2025 ANNUAL REPORT | 11

75+

international federations connected to InCommon via eduGAIN.

27M

users supported through federated trust interconnections.

400

Gbps circuits connecting Boston to Paris and Amsterdam to New York.

20M

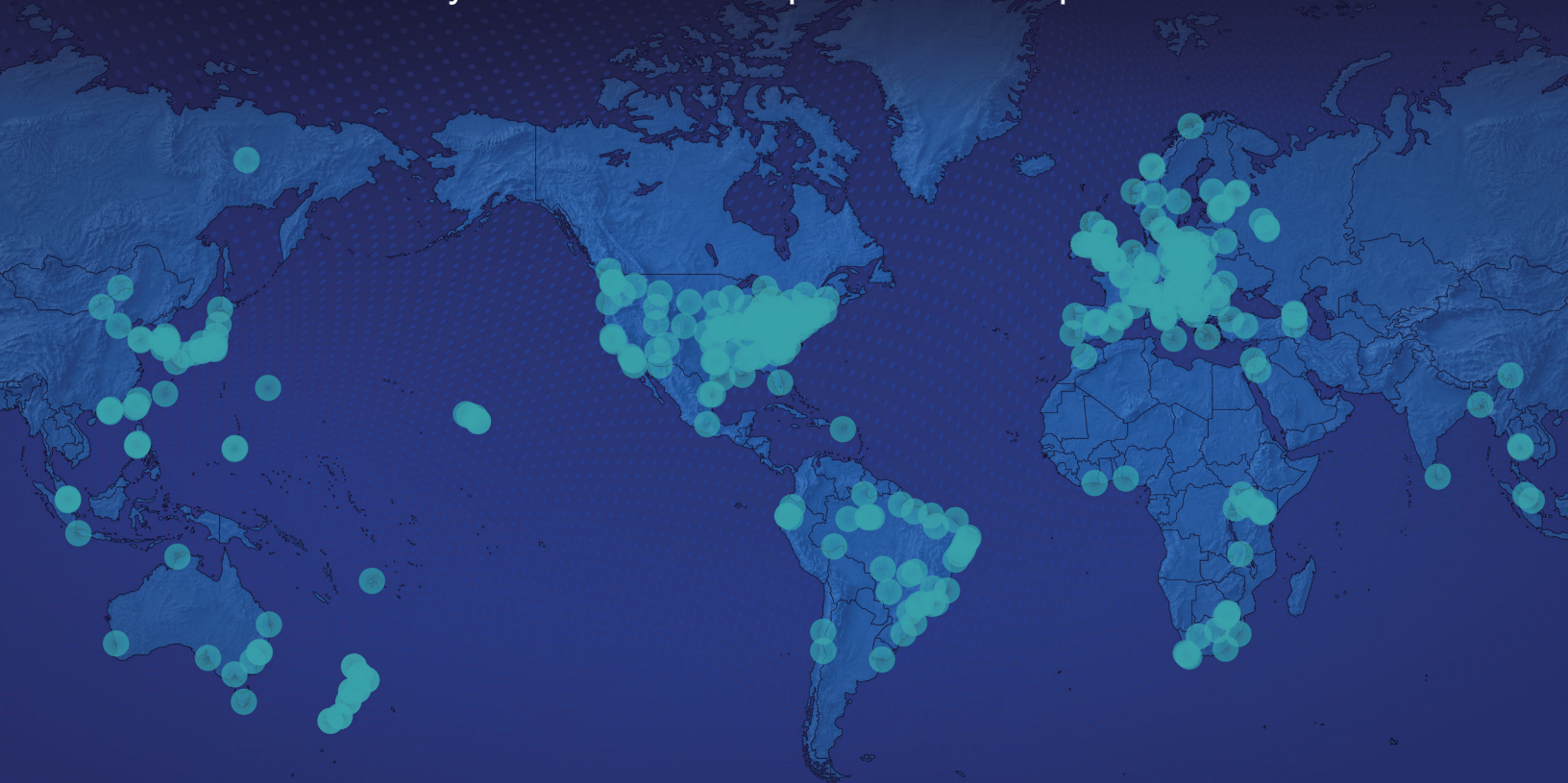
daily network measurements supported by 300 perfSONAR deployments across the Worldwide LHC Computing Grid.

Celebrating 20 Years of perfSONAR

Internet2 is a founding member of the six-organization consortium that maintains perfSONAR, the global standard for network performance. Supporting 2,000+ deployments on all seven continents, perfSONAR is used daily by campus engineers to resolve silent errors. At a recent SC conference, the tool was used to identify a vendor-specific bug in which a device dropped valid packets. Because of this discovery, a patch was issued, and the university's research flow was restored in hours.

perf20⁺NAR
years

perfSONAR remains a strong choice by the R&E community to assess and improve network performance.



Accelerating the Adoption of Emerging Technologies

We empower the R&E community to navigate the frontier of Generative AI and advanced wireless through shared expertise and community-led collaboration.

To address institutional challenges of deploying Generative AI at scale, Internet2 launched NET+ Portkey in August 2025, a peer-vetted gateway for scalable GenAI. Evaluated by seven institutions, the platform provides centralized governance, policy-based controls, safety guardrails, budget management, and complete visibility across more than 250 Large Language Model (LLM) providers.

With centralized governance, campuses can confidently scale AI deployments across research, instruction, and administrative functions while maintaining security and compliance. The NET+ contract eliminates lengthy procurement cycles while ensuring community-negotiated pricing and ongoing advocacy for feature development, as demonstrated by several institutions signing within a few months of launch.

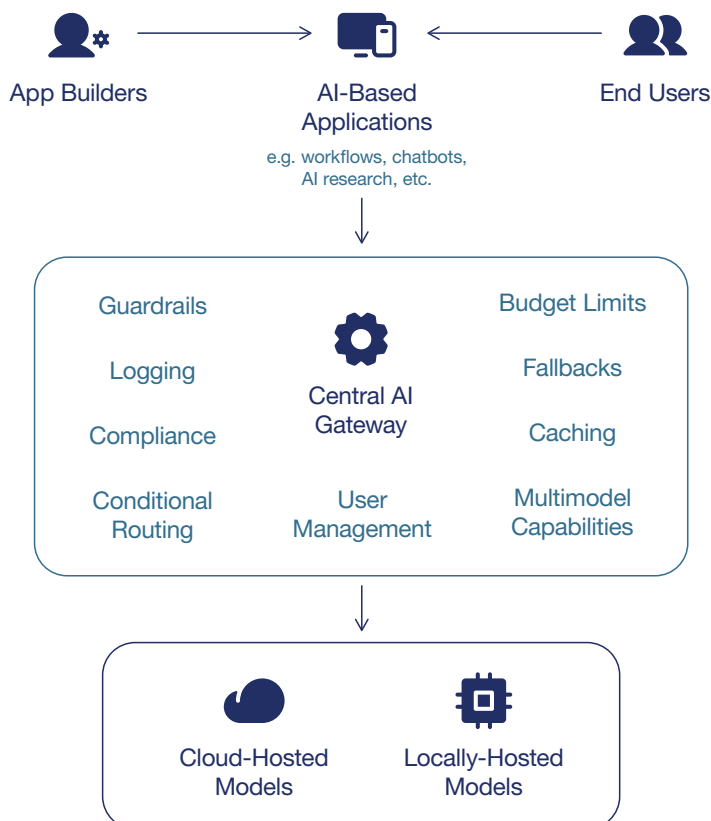


The NET+ contracts have been a cornerstone to our evaluation and selection of leading products and tools. Internet2 and the NET+ program have been solid partners in meeting the pressing needs of higher education."

Doug Streit

Special Advisor to the CIO,
Old Dominion University

AI Gateway Reference Architecture



2025 Highlight

In 2025, Internet2 developed a community-driven AI use case taxonomy in collaboration with the Campus Research Computing Consortium (CaRCC) with support from a NAIRR NSF award. This resource helps research computing professionals more effectively facilitate AI research and education on their campuses.

Accelerating the Adoption of Emerging Technologies

2025 ANNUAL REPORT | 13

Expanding R&E Connectivity with Advanced Wireless

Institutions increasingly need flexible wireless options to support cutting-edge research applications and expanded connectivity in underserved areas. To fulfill this need, Internet2 launched NET+ Kajeet in October 2025, introducing the first private cellular (LTE and 5G) and Neutral Host Networking (NHN) solution vetted specifically for R&E institutions.

The platform supports flexible spectrum and infrastructure models (CBRS, LTE, 5G), customizable network slicing, consolidated institutional billing, departmental cost allocation, and access to specialized design consultation. Nine institutional representatives conducted a comprehensive evaluation of nearly 70 use cases. The evaluation team negotiated a simplified pricing model at significantly lower rates, including pre-negotiated terms for HECVAT and SOC 2 compliance.

1,300+

1,300+ active NET+ contracts: Supporting 600+ subscribing institutions across 53 states and provinces.

6.57 Tbps

6.57 Tbps of cloud capacity: Seamlessly connecting campuses directly to AWS, Azure, Google, and Oracle across 672 dedicated cloud connections.

4,300+

4,300+ hours of cloud training consumed: Upskilling the R&E workforce through CLASS professional development, reaching 126 organizations across the U.S. and globally, including 69 R1 institutions.

90+

Accelerating innovation: Over 90 participants from 56 institutions collaborated in the GenAI Working Group to share best practices and explore service interests.



2025 Highlight

The redesigned Internet2 Cloud Scorecard Finder hosted 80 vendors by the end of 2025. By providing immediate access to vetted service models and security documentation, the Scorecard Finder empowers campus leaders to make faster, more informed procurement decisions.

Building Community, Driving Impact

In 2025, Internet2 convened working groups and communities of practice that brought together hundreds of R&E professionals to tackle shared challenges, advance emerging technologies, and strengthen the R&E ecosystem.

NET+ Vendor Management Community of Practice

Launched in 2025, this monthly gathering served as a platform for R&E professionals to share knowledge and build expertise, moving beyond transactional procurement toward strategic vendor lifecycle management. The community engaged 121 unique participants from 67 institutions, with an average of 30+ attendees at each session. Members from 13 institutions led discussions on contract negotiation, vendor performance, and risk assessment.

Third-Party Risk Management Working Group

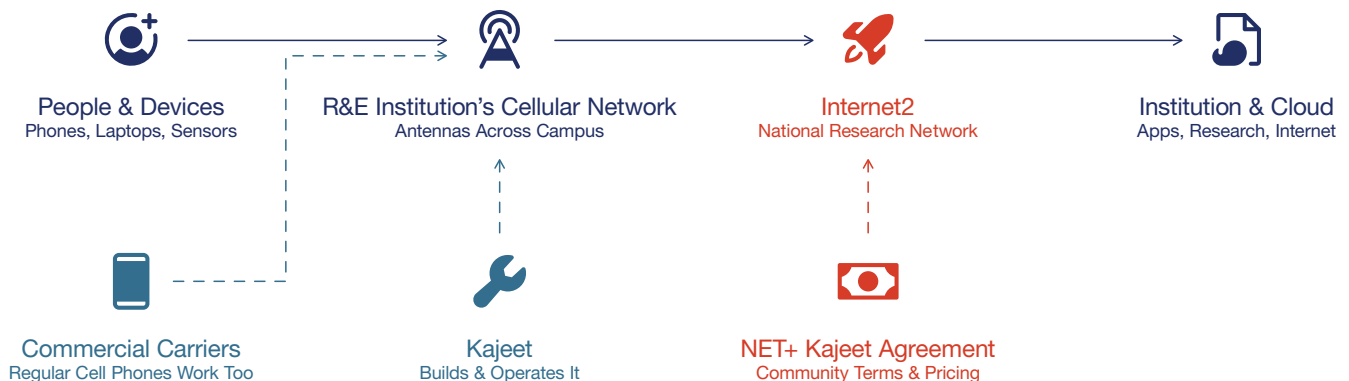
In 2025, Internet2 engaged with 60 unique participants across 48 institutions. This group shared effective practices, resources, and updates on new challenges, and identified the need for a centralized vendor risk management platform.

Future Wireless Working Group

With 63 members across 42 institutions and organizations, this group advanced the conversation on private wireless for research and higher education. In 2025, members tackled spectrum advocacy, explored private 5G partnerships, and examined real-world use cases in healthcare and AI-enabled learning. The group also established a CBRS mapping project to catalog private wireless coverage across campuses and began exploring private-to-private roaming solutions.

How Private Cellular for R&E Works

NET+ Kajeet + Internet2 — The Simple Picture



One R&E Institution's Cellular Network

Run by Kajeet, connected through Internet2, open to everyone's devices

Strengthening Trust, Security, and Identity Across R&E

Trust is the currency of global collaboration. Internet2 sets the gold standard for secure authentication and network integrity across the R&E ecosystem.

In 2025, InCommon made significant strides in executing its Futures2 strategy, strengthening its value proposition and enhancing technical support for the R&E community. Development of a revamped website and a new Community Organizations Directory was substantially completed.

To support emerging campus needs, we provided clear technical recommendations for course sharing single sign-on (SSO) and released a dedicated course sharing toolkit.

We established a Security Innovation Group in partnership with NIH and the NET+ program and introduced the Federation Readiness Checker to validate authentication scenarios and ensure seamless, compliant integration through simulated environments.

We made significant upgrades to Federation Manager and eduroam reporting, integrating these tools within new self-service resources, such as “IAM Sketch.” Coupled with the expansion of training programs, these enhancements have enabled institutions to implement robust identity foundations.

Specialized Tools and Strategic Guidance by and for the Research and Education Community

Identity and Access Management to Enable Privacy, Trust and Security



Created by SecondMuse

2025 Highlight

In 2025, the InCommon Academy engaged over 1,500 IAM professionals through high-impact learning experiences tailored to the R&E community. The Academy expanded its portfolio by transitioning the core curriculum to on-demand formats, accessible, self-paced pathways for institutions with limited time and resources.

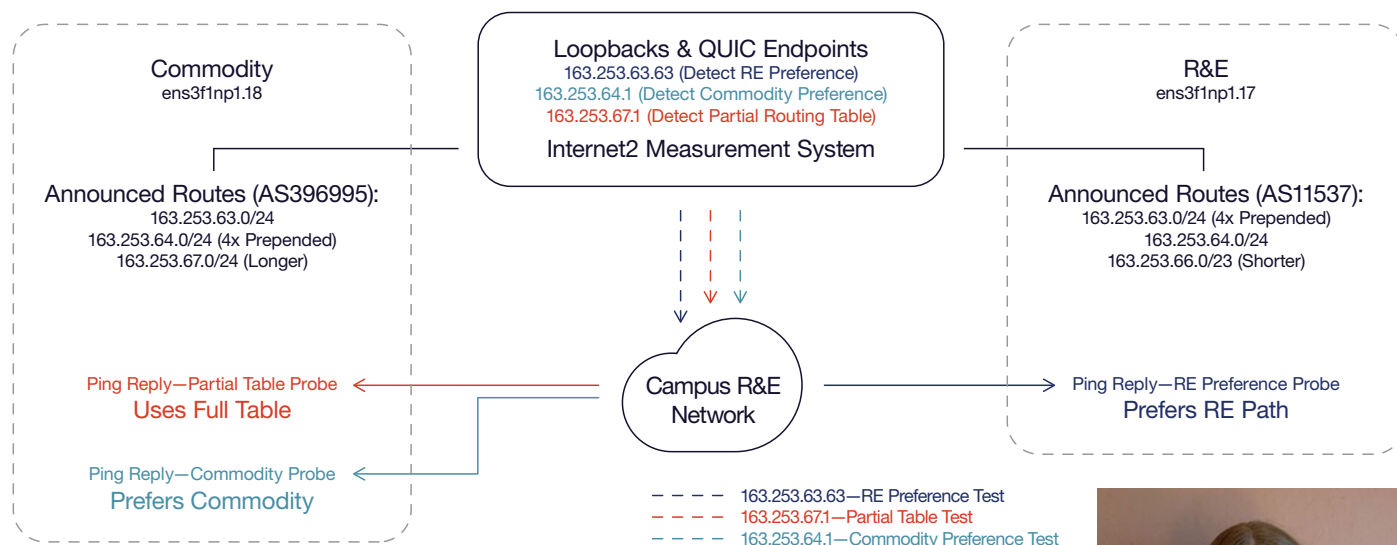
Strengthening Trust, Security, and Identity Across R&E

In 2025, Internet2 and the Center for Applied Internet Data Analysis (CAIDA) advanced a landmark collaboration to strengthen the routing security of research and education networks. Funded by the NSF, the ROOTBEER project (Routing Operations Observational Technology: Building to Enable Education and Research) delivers advanced monitoring and auditing capabilities purpose-built to detect and mitigate routing vulnerabilities, including unintentional route leaks and malicious hijacks that can disrupt data transfers or expose sensitive research data.

A significant 2025 milestone was the release of the first ROOTBEER tool: the RPKI-ROA Planner, which assists R&E network operators to simplify the creation of accurate Route Origin Authorizations by analyzing Internet Routing Registry objects, Regional Internet Registry data, and R&E-specific routing history. Additional tools in development include a Routing Policy Inference Tester, an International Peer Filter Manager, and a Global Research and Education BGP Route Report.

Underpinning all this work is a direct integration with the Internet2 Insight Console, which in 2025 brought these capabilities into a unified, real-time visualization platform. R&E network engineers can now access actionable routing insights in a single place, supporting the secure, resilient infrastructure for global scientific research.

Measuring a Remote R&E Network's Routing Policy



44K+

Global connectivity: Providing seamless, secure Wi-Fi access across 44,000+ eduroam hotspots worldwide.

111

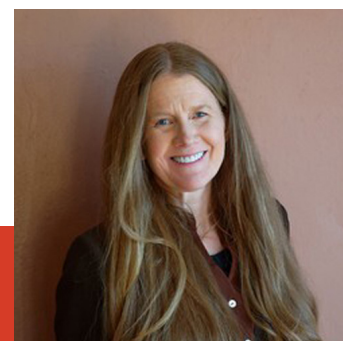
DDoS mitigation: Proactively shielding 111 institutional tenants from malicious network disruptions.

275

Sustaining the trust fabric: Supporting 275 cloud service providers within the secure authentication ecosystem.

“

ROOTBEER is our effort to change the lack of operational visibility needed to secure scientific data flows. By shining a light on routing anomalies in real time, we're empowering network operators to protect the integrity of research traffic.”



KC Claffy
SDSC Senior Research Scientist and CAIDA founder

Strengthening Trust, Security, and Identity Across R&E

2025 ANNUAL REPORT | 17

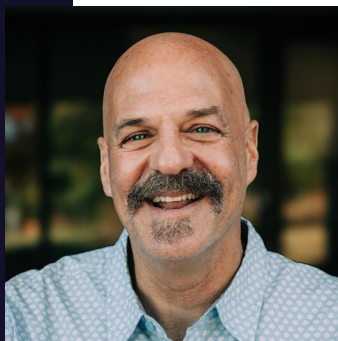
The Internet2 eduroam Support Organization program accelerates the reach of secure, reliable and seamless Wi-Fi access

In 2025, eduroam expanded its footprint across the United States while strengthening the support structures that help institutions deploy and manage the service confidently. Missouri's MOREnet and Wisconsin's WiscNet joined the eduroam Support Organizations (eSO) Program, and new analytics features introduced daily data updates and interactive dashboards to help institutions understand usage and plan for growth.

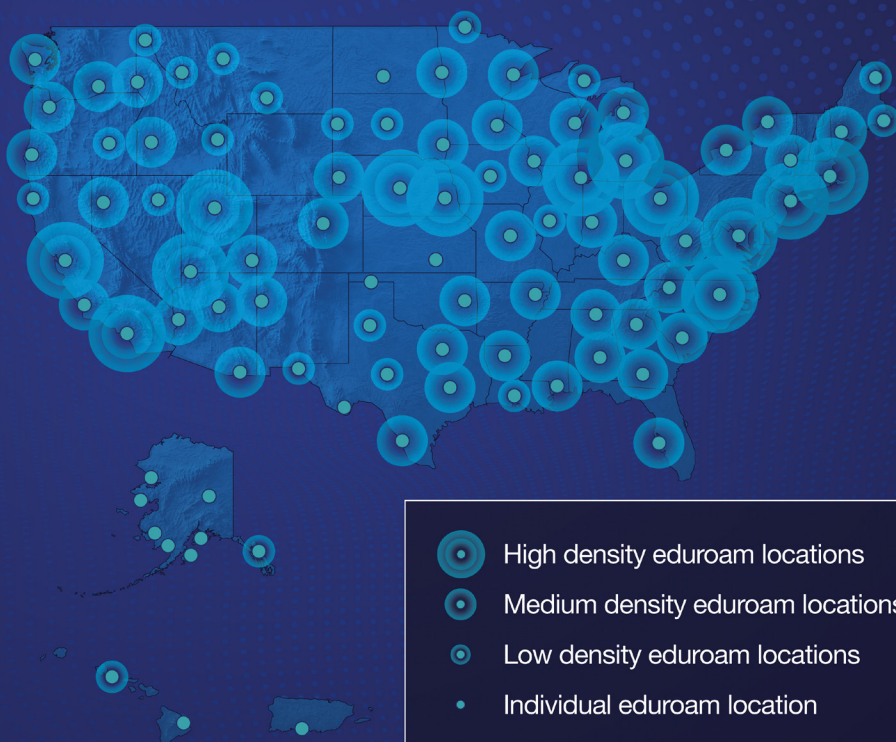


What excites us most about eduroam is how it removes barriers to access and opens the door to connection everywhere. Learning and collaboration are not limited by location or circumstance."

Rich Turiel
Chief Technology Officer,
WiscNet



This map shows the more than 4500 locations where eduroam is available throughout the US.



EDUROAM FOR K-12 BY THE NUMBERS IN 2025

11

states served by eduroam Support Organizations

1,461

eduroam hotspots deployed

1,173

hotspots in K-12 schools

83

hotspots in public libraries

14

hotspots in museums and cultural institutions

191

hotspots in other community spaces

381

K-12 schools, libraries, museums, and other community spaces offering eduroam, a 12% increase over last year

175M+

total eduroam authentications last year

Bridging Gaps, Scaling Discovery

Through strategic partnerships with the National Science Foundation, we are building the “on-ramps” and community frameworks essential for the next generation of discovery.

Accomplishing More Together: Minority Serving - Cyberinfrastructure Consortium (MS-CC)

Supported by the NSF and facilitated in partnership with Internet2, we are building durable “on-ramps” to the national ecosystem by bridging critical gaps and creating repeatable frameworks for cyberinfrastructure (CI) growth.

In 2025, these collective efforts catalyzed over \$1.5 million in external campus cyberinfrastructure (CC*) funding for participating campuses and empowered the first cohort of five faculty research projects to bolster research readiness on their campuses. The year’s success was further defined by deep community engagement, ranging from supporting student interns to hosting campus workshops and the consortium’s annual meeting.



3

proof-of-concept CI improvement projects at a Tribal college, an HBCU, and a multi-campus consortium.

15

student interns supported across 12 HBCUs.

20+

community sessions hosted on cybersecurity, CI planning, and AI policy.

4

CI workshops and 3 student hackathons.

200+

attendees from 40+ institutions at the 2025 MS-CC Annual Meeting.



2025 Highlight

The MS-CC has now engaged 305 organizations, providing them with the training, community, and advocacy needed to compete for federal research funding.

Bridging Gaps, Scaling Discovery

Accelerating AI Readiness: The NAIRR Pilot and EAGER Awards

As the national focus on artificial intelligence accelerates, Internet2 is playing a key role in the community's engagement with the National AI Research Resource (NAIRR) Pilot. In February 2025, we partnered with the NSF to host the NAIRR Pilot Inaugural Annual Meeting, an event that convened 378 stakeholders from across the research and education community, including R1 and non-R1 institutions, national labs, and private industry. By bringing together everyone from principal investigators to graduate students, we provided a vital platform for cross-community collaboration. The event's success was underscored by the NSF's recognition of Internet2's contributions and a high degree of participant satisfaction with the strategic outcomes and networking opportunities provided.

Complementing this, our EAGER (Early-concept Grants for Exploratory Research) award is providing training and resources to help research computing and data (RCD) professionals prepare researchers on their campuses to make effective use of NAIRR resources.

The award also supports communications infrastructure for the NAIRR Pilot, including the NAIRR newsletter and the All Things AI publication distributed to the Campus Research Computing Consortium (CaRCC) community.

NAIRR Pilot

National Artificial Intelligence
Research Resource Pilot

INAUGURAL ANNUAL MEETING

FEBRUARY 19-21, 2025
Hyatt Regency Crystal City, Arlington, Va

SUPPORTED BY
NSF AWARD# 2536728



BROUGHT TO YOU BY





1.4K+
professionals
reached through AI
resource webinars.

378
stakeholders convened for
the inaugural NAIRR Pilot
Annual Meeting.

96%
of participants rated the
NAIRR meeting as very
or extremely valuable.

The material on pages 18-19 of this report is based upon work supported by the U.S. National Science Foundation under Award Nos. 2234326, 2452148, and 2436057. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Convening the R&E Community to Solve Shared Challenges

Internet2 brings together the R&E community to align on strategy, solve complex technological challenges, and engineer the future of discovery.

Internet2 continued its long-standing role in facilitating collaboration and community engagement through in-person and virtual convening opportunities. In 2025, we convened close to 6,000 community stakeholders through our own production of in-person and virtual events.

We prioritized “meeting the community where they are.” We didn’t just host events; we actively shaped the national and global dialogue by leading sessions and collaborations at key R&E forums, including PEARC25, SC25, the EDUCAUSE Security Professionals Conference, The Quilt Member Meetings, and TNC25. Our contribution was anchored by Internet2 technical staff members who helped design and operate the world’s fastest temporary network. Internet2 was proud to serve as a Diamond Level contributor in 2025.



“

CommEX is not just about learning; it’s about connecting with a community that shares a common mission. Now more than ever, higher education needs each other and a strong community for the shared challenges we are facing.”

Melanie Douglas
Deputy CIO and Associate Vice
Chancellor, UC Santa Cruz



Convening the R&E Community to Solve Shared Challenges

2025 ANNUAL REPORT | 21

Forums for Leaders and Builders

In 2025, Internet2 facilitated the convening of its diverse community stakeholders through a robust calendar of in-person and virtual convenings.

Community Exchange: Over 540 campus executives, IT directors, policymakers, and researchers, representing 24 countries, met in Anaheim, CA, April 28-May 1. The event featured sessions, content, and networking opportunities for attendees with 64 track session talks and over 25 working meetings. A half-day Leadership Exchange was held with over 100 R&E leaders to engage in meaningful dialogue about the opportunities and risks shaping our collective future.

Technology Exchange: In early December, over 680 community members and stakeholders convened in Denver, CO, for a week of technical knowledge sharing and deep dives. This gathering remains the premier venue for the “builders” of our R&E ecosystem to share technical expertise and solve complex challenges in real time. The program featured community-led tutorials, poster presentations with over 100 track sessions, and 30 working meetings.

Federation Day: Our inaugural event – held in December at the Technology Exchange - brought together international identity leaders across multiple countries to align on the future of global trust frameworks and the long-term sustainability of identity services.

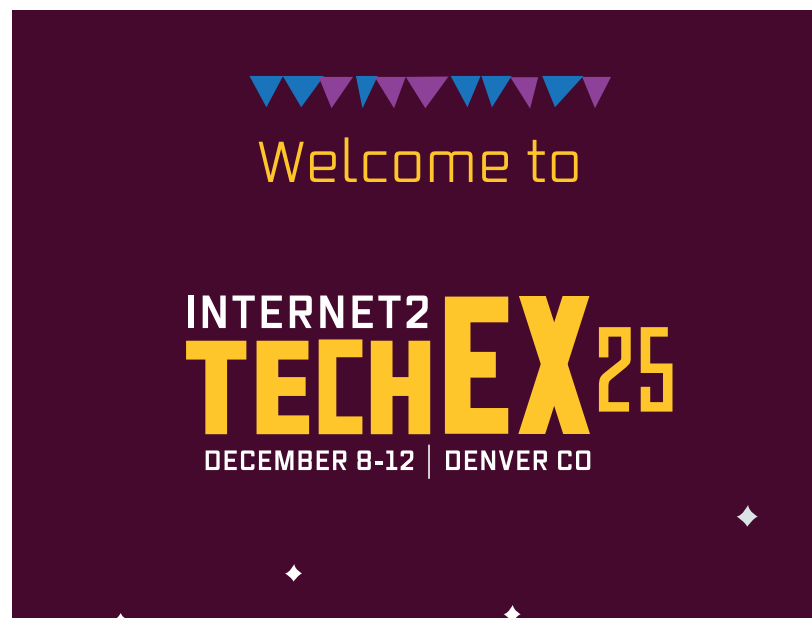
First-Timer Initiative: Recognizing that new voices are essential to solving tomorrow’s challenges, we launched a First-Timer Initiative at the 2025 Technology Exchange, integrating 206 newcomers into the heart of our community’s problem-solving dialogues.

Community-Specific Programming: Beyond our anchor events, we hosted targeted convenings, including the MS-CC Annual Meeting, InCommon BaseCAMP, Connector & Network Member Principals Meeting, FinOps for the R&E Community: A Virtual Conference, and the Cloud Forum to ensure every facet of the R&E landscape has a dedicated space to solve specific challenges and scale institutional success.

PEARC25: Internet2 provided the strategic leadership behind PEARC25’s record-breaking turnout of nearly 1,000 attendees. From serving as General Co-Chairs to leading the RCD Nexus Day workshop, Internet2 staff drove the key initiatives that strengthen engagement and visibility across the entire research computing community.

2025 Highlight

In 2025, as part of our newly launched Community Leadership and Culture Initiative, we supported 11 early- to mid-career R&E professionals with the inaugural Internet2 Emerging Leaders scholarships to attend the Internet2 Technology Exchange in Denver.



Financial Overview

Internet2 structured the 2025 budget to amplify our mission of fostering community collaboration and providing advanced technology, infrastructure, and services that focus on the unique needs of R&E.

By pairing fiscal stewardship with strategic operational goals, Internet2's expenditures elevated all the accomplishments highlighted in this annual report.

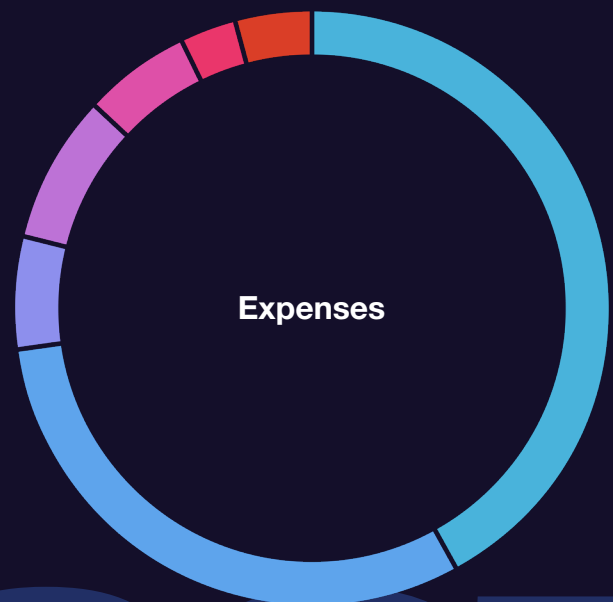
The following data provides a high-level summary of our fiscal performance for the 2025 Fiscal Year.

2025 Highlight

In 2025, our Grants Administration team issued 11 Letters of Collaboration to community members, demonstrating our commitment to supporting community research initiatives.



62% ■ Network Service Fees
12% ■ Community Engagement
(Including Member Dues)
9% ■ Trust & Identity Fees
8% ■ NET+ Fees
5% ■ Other Revenue
4% ■ Sponsored Programs



42% ■ Network
31% ■ Personnel
6% ■ Professional Services
8% ■ Depreciation/Amortization
6% ■ Office Support/Travel/Meetings
3% ■ Technology and Equipment
4% ■ Other

Looking Ahead to 2026

2025 ANNUAL REPORT | 23

A Commitment to Strategy and the R&E Mission

As we mark three decades of impact, we are collaborating with our community and staff to develop a compelling, strategic plan and vision for the future. In late 2025, we kicked off this strategic planning process by hosting a series of community listening sessions, bringing together voices from across the R&E ecosystem to inform and shape our direction.

This work will continue into 2026 and will ensure we build on our collective successes and continue delivering value that uplifts all of R&E.

1

Optimizing Core Services and Solutions:

We will continuously improve and optimize our existing portfolio of critical services and solutions to enhance their reliability, performance, and overall value.

2

Pioneering Innovative Solutions:

From cloud integration to advanced identity and access management, we will continue to pioneer and deploy innovative services, empowering the community to leverage new technologies responsibly and effectively.

3

Enabling Global-Scale Research:

We remain dedicated to advancing research and innovation globally by providing the necessary infrastructure and partnerships for R&E.

4

Fostering Community and Collaboration:

Our priority is, and has always been, to actively listen to and engage with members, participants, and stakeholders whose insights, challenges, and aspirations are the essential inputs that will shape the shared path forward and ensure the executed vision truly reflects the community's needs.

As Internet2 looks ahead, our deepest appreciation goes to every member, partner, and stakeholder we work and collaborate with each day. Your continued commitment is foundational to the organization's and community's success, and we are grateful to serve you.

Internet2 extends its heartfelt gratitude to our entire member community—our higher education institutions, regional and state R&E networks, government and federal agencies, non-profit organizations, industry collaborators, and international partners—whose trust, collaboration, and partnership continue to drive our shared mission forward.

The success of Internet2 is built upon the invaluable contributions of dedicated community volunteers who generously share their time, expertise, and vision to advance the Internet2 mission. We are deeply grateful to our Board of Trustees for their strategic leadership and oversight, which continues to guide our organization through an evolving landscape of research, education, and technology innovation.

Our Program Advisory Groups and Community Committees serve as vital conduits between Internet2 and the broader community we serve. Through their engagement, we gain essential insights that shape the direction of our programs and services, ensuring they remain valuable to the needs of our members and aligned with the priorities of the R&E community. The thoughtful guidance and active participation of these groups strengthen every aspect of our work.

To all who have contributed their time and expertise this year, we extend our sincere appreciation. Your commitment to collaboration, your willingness to share knowledge and best practices, and your dedication to advancing Internet2's vision have been instrumental to our achievements. Thank you for your partnership and continued leadership.

Program Advisory Groups (PAGs) and Community Committees

NET+ PAG

- Edward Aractingi, *Chief Information Officer, William and Mary*
- Kitty Bridges, *Senior Advisor for Strategic Initiatives, NYU*
- Sarah Christen, *Deputy Chief Information Officer, Cornell University and Weill Cornell Medicine at Cornell University*
- Tom Dugas, *Vice President for Technology and Chief Information Officer, Duquesne University*
- Loren Malm, *Vice President for Information Technology and Chief Information Officer, Ball State University*
- Matthew Riley, *Chief Information Officer and Vice Chancellor, University of Illinois – Chicago*
- Todd Shechter, *Chief Technology Officer, University of Wisconsin–Madison*
- John Suess, *Vice President, Information Technology & Chief Information Officer, University of Maryland – Baltimore County*
- Cheryl Washington, *Chief Information Security Officer, University of California – Davis*

Trust & Identity PAG

- Ashrab Ahmed, *Deputy Chief, Identity and Access Management Services, National Institutes of Health*
- Rachana Ananthakrishnan, *Executive Director at Globus, University of Chicago*
- Dedra Chamberlin, *CEO and President, Cirrus Identity*
- Brad Christ, *Associate Vice President for Information Technology, Eastern Washington University*
- Bernie Gulachek, *Vice President and Chief Information Officer, University of Minnesota*
- Kristi Holmes, *Director at Galter Health Sciences Library, Northwestern University*
- Kim Milford, *Chief Information Security Officer, University of Illinois Urbana-Champaign*
- Chris Misra, *Vice Chancellor for Information Technology and CIO, University of Massachusetts Amherst*
- Dave Robinson, *Chief Information Officer, Baylor School*
- Jim Stewart, *Chief Technology Officer, UETN*
- Marc Wallman, *Vice President for Information Technology, North Dakota State University*

External Relations PAG

- William Byers, *Director of Strategic Initiatives, MOREnet*
- Jarret Cummings, *Director, Policy & External Relations, EDUCAUSE*
- Lev Gonick, *Chief Information Officer, Arizona State University*
- Ilse Koning, *Advisor Public Affairs, SURF*
- Jen Leasure, *President and CEO, The Quilt*
- Brian Nichols, *Chief Information Officer, University of Kentucky*
- Doug Wasitis, *Director of Federal Relations, Indiana University*

Community Engagement PAG

- Simeon Ananou, *Vice President for Information Technology & Chief Information Officer, Stony Brook University*
- Brice Bible, *Vice President for Information Technology & Chief Information Officer, University of South Carolina, Columbia*
- Andrew Buker, *Assistant Vice President for Infrastructure Services, University of Nebraska System*
- Saira Hasnain, *Associate Vice President & Deputy Chief Information Officer, University of Florida*
- Aisha Jackson, *Chief Information and Digital Strategy Executive, UC Davis*
- Hector Molina, *Vice Chancellor for Information Technology & Chief Information Officer, Fayetteville State University*
- Katherine Primeau, *Founder / Executive Director, Mobile Beacon*
- Carrie Rampp, *Vice President & Chief Information Officer, Franklin & Marshall College*
- Elon Turner, *Executive Director, Arkansas Research and Education Optical Network*

Network Architecture, Operations and Policy (NAOP) PAG

- Jeanne Casares, *President & CEO, NYSERNet.org, Inc*
- Sarah Christen, *Deputy Chief Information Officer, Cornell University and Weill Cornell Medicine at Cornell University*
- Cas D'Angelo, *Chair and President, Southern Crossroads*
- Jason Edelman, *Founder and Chief Technology Officer, Network to Code*
- Jon Ellis, *Chief Executive Officer, Florida LambdaRail*
- Rick Haugerud, *Assistant Vice President, IT Security Services, University of Nebraska System*
- Geneva Henry, *Chief Information Officer, George Washington University*
- Jonah Keough, *Managing Director, Pacific Northwest GigaPOP*
- Charley Kneifel, *Chief Technology Officer, Duke University*
- Shawn McKee, *Research Scientist, University of Michigan*
- Jessie Minton, *Vice Chancellor for Technology and Chief Information Officer, Washington University in St. Louis*
- Daniel Schmiedt, *Associate Vice President, Enterprise Networks, Texas A&M University*
- Rick Tuthill, *Director of IT Architecture, University of Massachusetts-Amherst, and NTAC Chair*
- Scott Valcourt, *Associate Teaching Professor, Northeastern University*
- Garret Yoshimi, *Chief Information Officer, University of Hawaii*

Research PAG

- Thomas Cheatham, *Director of the Center for High Performance Computing and Professor in the Department of Medicinal Chemistry, University of Utah*
- Clark Gaylord, *Director of Research Technology Services with CAAREN, The George Washington University*
- Ruth Marinshaw, *Executive Director for Research Computing Technologies, Yale University*
- Jackie Milhans, *Director of Research Computing and Data, Northwestern University*
- Henry Neeman, *Executive Director of Research Computing, University of Oklahoma*
- Scotty Strachan, *Principal Research Engineer, Nevada System of Higher Education*
- John Towns, *Deputy Director of the National Center for Supercomputing Applications, University of Illinois Urbana-Champaign*
- Jim Wilgenbusch, *Director of Research Computing, University of Minnesota*

Network Technical Advisory Committee

The Network Technical Advisory Committee (NTAC) consists of more than 200 community members who work closely with Internet2 Network Services. Typically, 30-40 members attend the monthly NTAC or Special Interest Group (SIG) meetings, bringing as much community expertise as possible to those conversations, maximizing opportunities for community participation, and providing the greatest possible transparency into Network Services processes and decisions.

Rick Tuthill, Director of IT Architecture at the University of Massachusetts Amherst, serves as Chair.

The NTAC has six SIGs that delve more deeply into particular topics:

- Frank Seesink, Chair of Network Automation SIG, *University of North Carolina at Chapel Hill*
- Shannon Spurling, Chair of Network Performance SIG, *Missouri Research and Education Network*
- Dan Schmiedt, Chair of Peering and Routing SIG, *Texas A&M University*
- Michael Lambert, Chair of IPv6 SIG, *Pittsburgh Supercomputing Center/3ROX*
- Bruce Curtis, Chair of Network Security SIG, *North Dakota State University*
- Andrew Gallo, Chair of Optical SIG, *The George Washington University/CAAREN*

Board of Trustees

The Board consists of eleven elected seats and three to five appointed seats, including university presidents/chancellors, chief information officers, and researchers, as well as representatives from the R&E network and industry members.

- Gregory Washington, Chair, *President, George Mason University*
- Cynthia K. Larive, Vice Chair, *Chancellor, UC Santa Cruz*
- Bret Blackman, *Vice President for Information Technology and Chief Information Officer, University of Nebraska System*
- M. Brian Blake, *President, Georgia State University*
- Jennifer Cowley, *President, University of Texas at Arlington*
- Ewa Deelman, *Research Professor of Computer Science and Principal Scientist, University of Southern California Information Sciences Institute*
- Deborah F. Dent, *Chief Information Officer, Jackson State University*
- Elias G. Eldayrie, *Senior Vice President and Chief Information Officer, University of Florida*
- Aimee Heeter, *Senior Vice Chancellor for Finance and Administration, University of Illinois Urbana-Champaign*
- Melissa Loble, *Chief Academic Officer, Instructure*
- Derek Masseth, *Executive Director, Sun Corridor Network*
- Michele L. Norin, *Senior Vice President and Chief Information Officer, Rutgers, the State University of New Jersey*
- Mary Lou D. Ortiz, *Chief Financial Officer and Vice Chancellor for Finance and Administration, UC Irvine*
- Daniel A. Reed, *Presidential Professor in Computational Science (Emeritus), University of Utah*
- Tripti Sinha, *President and CEO, Internet2*

We extend our deep appreciation to the leaders who concluded their service on the Internet2 Board of Trustees in 2025.

- Santa Ono, *former President, University of Michigan*
- Howard Pfeffer, *former President and CEO, Internet2*
- Steve Relyea, *Executive Vice Chancellor and Chief Financial Officer Emeritus, California State University*
- Sean Reynolds, *Vice President for Information Technology and Chief Information Officer, Northwestern University*
- Satish Tripathi, *President, University at Buffalo*

Glossary

This glossary provides a guide to the technical terms, organizational entities, and programmatic initiatives referenced in this annual report.

CLASS (Cloud Learning and Skills Sessions): Cloud training sessions and workshops designed to help the R&E community develop skills and expertise in cloud technologies, research computing, and data science.

Cloud Connect (I2CC): A service providing software-defined dedicated connections to major cloud providers, including AWS Direct Connect, Google Partner Interconnect, Microsoft Azure ExpressRoute, and Oracle FastConnect.

Cloud Scorecard: A community-vetted tool used by institutions to evaluate cloud and AI vendors based on R&E-specific requirements.

eduGAIN: An inter-federation service that connects identity federations around the world, enabling users to access services across borders.

eduroam: The global Wi-Fi roaming access service operated by and for the international R&E community. Internet2 is the U.S. operator of eduroam.

GÉANT: A collaboration of European national R&E networks that delivers an information ecosystem of infrastructure and services to advance research, education, and innovation on a global scale.

HECVAT (Higher Education Community Vendor Assessment Toolkit): A comprehensive questionnaire that companies can complete to provide a detailed picture of their AI cybersecurity, privacy, IT accessibility, and compliance assessments in one place—helping higher education leaders make better technology decisions, faster.

InCommon: A community-led identity and access management (IAM) ecosystem for U.S. research and higher education. At its core is the InCommon Federation, the trust fabric that enables secure access to thousands of services worldwide. The term is used contextually to describe the InCommon Organization (Internet2 staff and leadership managing operations), InCommon Participants (institutions that sign formal service agreements), and the InCommon Community (the broader network of participants, software users, international collaborators, support providers, and volunteers participating in governance and advisory committees).

InCommon Academy: An InCommon program that equips R&E community members with the skills, knowledge, tools, and guidance needed to support scalable IAM solutions. Training and professional development are delivered through software courses, online training, monthly webinars, collaborative cohort programs, and community events.

Insight Console: Internet2's self-service portal for network management, cloud connectivity, and diagnostic tools.

Internet2: Our non-profit, member-driven organization founded by leading U.S. higher education institutions to advance R&E through advanced technology.

Internet2 member: A dues-paying organization that leverages a tailored ecosystem of high-performance infrastructure, cloud services, identity and security solutions, and peer collaboration to solve complex technology challenges and accelerate research and academic innovation. Members span four categories: higher education, affiliates and federal affiliates, industry, and R&E networks.

Internet2 stakeholder: Organizations and individuals that support or benefit from Internet2's member community and those invested in the mission of R&E.

MS-CC (Minority Serving - Cyberinfrastructure Consortium): MS-CC, funded through NSF Awards #2137123 and #2234326 via Internet2, promotes and supports cyberinfrastructure capabilities at Historically Black Colleges and Universities and Tribal Colleges and Universities.

NET+: An Internet2 program comprised of a suite of cloud, AI, and vendor management solutions alongside community programs, trainings, and platforms vetted for R&E. This includes 21+ leading services, the Cloud Infrastructure Community Program (CICP), CLASS (Cloud Learning and Skills Sessions), and the Internet2 Cloud Scorecard.

perfSONAR: A globally deployed, open-source network measurement toolkit used to monitor and ensure end-to-end network performance. Six R&E network organizations lead the perfSONAR development consortium: the Energy Sciences Network (ESnet), Indiana University, Internet2, and the University of Michigan in the U.S.; GÉANT across Europe; and Rede Nacional de Ensino e Pesquisa (RNP) in Brazil.

Program Advisory Groups (PAGs): Stakeholders from member institutions who provide feedback on specific areas of community needs to enhance the services and organizational structure of Internet2.

Research and Education (R&E): The core community served by Internet2, including universities, research facilities, federal agencies, cultural organizations, and state and regional networks.

Trust & Identity (T&I): The Internet2 division that operates InCommon, which provides tailored identity and access management solutions, specialized tools, and strategic guidance for the specific privacy, trust, and security needs of research and higher education — empowering secure, scalable inter-organizational collaboration.

Working groups: Volunteers who collaborate on technical standards, policy development, and shared solutions, ensuring their home institutions stay at the forefront of innovation while directly contributing to the shared solutions that shape the Internet2 community.



INTERNET2.EDU