CLOUD NATIVE
COMPUTING FOUNDATION

CNCF 2025

ANNUAL REPORT

SCALING NEW HEIGHTS IN CLOUD NATIVE AI CONFORMANCE

CONTENTS

INTRODUCTION

2025 marks ten years of progress for the CNCF and was a pinnacle year for the evolution of open source cloud native innovation. CNCF now hosts more than 230 projects with over 300,000 contributors worldwide, making it one of the largest open source organizations in the world.

In 2025, CNCF continued its mission of helping organizations adopt cloud native tools at scale. We launched the Certified Kubernetes AI Platform Conformance Program to support consistent and reliable AI infrastructure, introduced new training paths for platform engineering with CNPA and CNPE certifications, and welcomed record-breaking crowds to KubeCon + CloudNativeCon events across the globe. Themes such as platform engineering, AI, and observability showed how cloud native continues to grow and adapt to new challenges.

Since stepping into the role of executive director in June, I've been struck by the strength and commitment of our community. My initial goal upon joining the foundation was to bridge the strategic gap between OpenInfra and the cloud native application layer. Since then, the progress we've made in reducing developer friction across these ecosystems speaks volumes about the passion and collaborative spirit of our community. By empowering our maintainers and upholding the rigorous governance that defines the CNCF, we continue to ensure that the most innovative software in the world remains built on a foundation of trust that only our community can provide.

Our end user community also remains one of CNCF's greatest strengths. This year's Top End User Awards went to Ant Group and Michelin, both demonstrating how cloud native technologies are solving real infrastructure needs in production.

This year's report captures a year of practical impact and collaboration. The work happening across our projects, communities, and member companies is shaping the next decade of open source infrastructure.

Jonathan Bryce, Executive Director, CNCF

230+ Projects

~800 CNCF Members

300k+ Contributors

70,000+ community.cncf.io Group Members

"I'm incredibly proud of our community—~nine thousand of us came together in Atlanta to celebrate 10 years of cloud native. While the technology is exciting... the greatest lesson I've learned in my decade in the cloud native community is simply how to be a better human."

- LIN SUN, LINKEDIN

2025 MOMENTUM

PROJECT CONTRIBUTORS
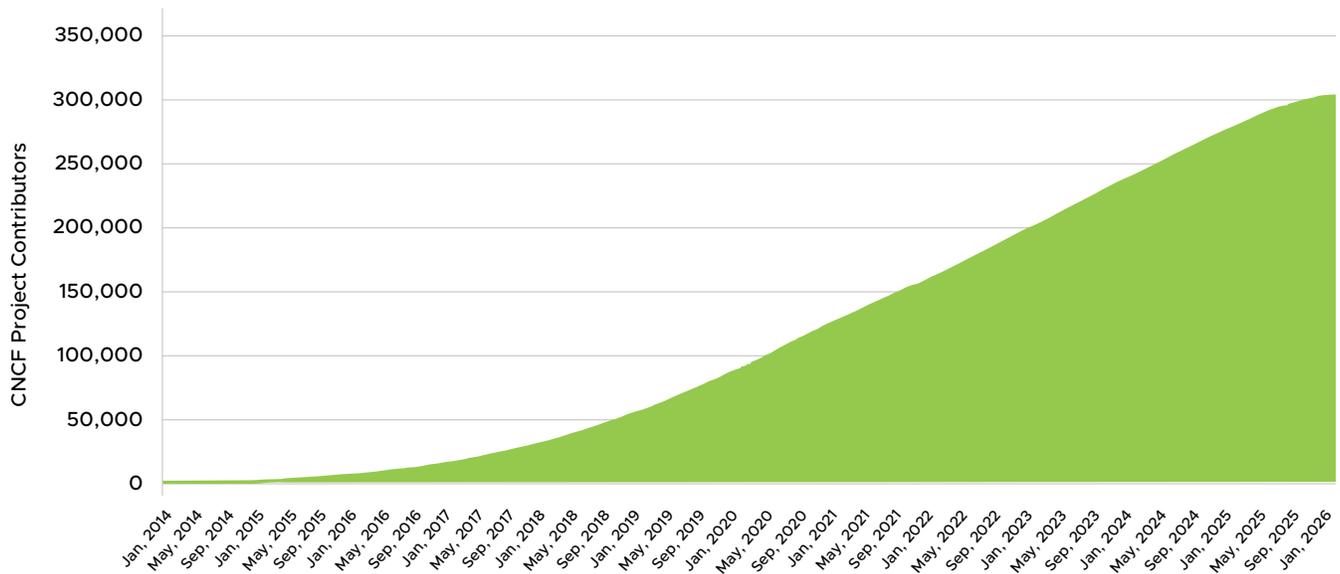
> *"Sometimes, I look back and cannot believe it's already been 10 years since the Cloud Native Computing Foundation (CNCF) was established. It's incredible to see the growth of the cloud native community - one of the most welcoming and innovative!... Happy #cTENcf! Looking forward to the next decade of innovation"* **- KATIE GAMANJI, LINKEDIN**

Cloud Native Computing Foundation (CNCF) is an open source software foundation dedicated to making cloud native computing ubiquitous. Since it was founded in 2015, it has pioneered cloud native technologies—hosting and growing some of the world's **most successful** open source projects, including Kubernetes, Prometheus, Envoy, ContainerD, and **many others**.

Today CNCF is a powerhouse for visionary projects and people, hosting 230+ projects with over 300k contributors representing 190 countries, and there are no signs of this growth slowing down.

LEADERSHIP

In June, Jonathan Bryce was appointed executive director, cloud & infrastructure, and Chris Aniszczyk as CTO, cloud & infrastructure. Together, they will oversee the Linux Foundation's largest cloud and infrastructure open source initiatives, including the CNCF, where Bryce will also serve as executive director.

As executive director, Bryce guides over 230 projects and facilitates collaboration among the foundation's nearly 800 members. He also remains the executive director of the OpenInfra Foundation, highlighting the shared impact both foundations have on driving open source infrastructure adoption for AI, edge, and cloud native workloads.

As CTO of cloud & infrastructure, Aniszczyk expands his role to serve banner Linux Foundation projects like OpenInfra, OpenSearch, and more, focusing on developer initiatives, sharing CNCF growth lessons, and broadening the global impact of cloud and infrastructure technology.

Jonathan Bryce
Executive Director, CNCF

Chris Aniszczyk
CTO, CNCF

MEMBERSHIP

The CNCF ecosystem continues to grow across vendor and end user memberships, making it one of the most successful open source foundations to date. In fact, the foundation welcomed 135 new members in 2025.

With almost 800 member organizations, the CNCF today brings together the largest public and private cloud companies globally, as well as the most inventive software firms and end user organizations. Investment from these leading organizations signifies a strong dedication to the advancement and sustainability of cloud native computing for years to come.
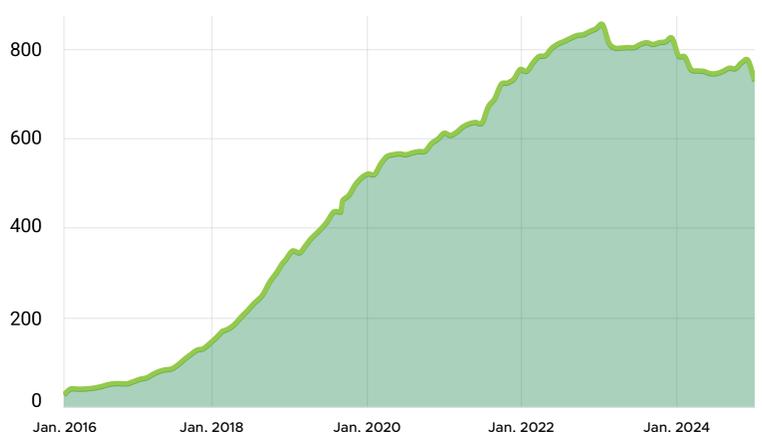
652 + 135
NEW MEMBERS
15 new End User Members

NEW PLATINUM MEMBER

CVS Health

NEW GOLD MEMBERS

ERICSSON

viettel

HAPROXY

CNCF MEMBERSHIP GROWTH

COMMUNITY
# Patent Troll Deterrence for Ecosystem Defense

Due to the broad success and ubiquity of cloud native, patent trolls, also known as non-practicing entities (NPEs) have increasingly targeted this technology area. NPE lawsuits targeting adopters of cloud native open source projects surged to their highest level in 2025.

One of the core defensive measures for the CNCF ecosystem is the **Open Source Zone (OS Zone)**, a partnership with **Unified Patents** launched in 2019 and **expanded in 2024**. The OS Zone employs a comprehensive strategy—utilizing administrative challenges, crowdsourced prior art contests, and intelligence sharing—to deter threats from NPEs. In response to increased NPE aggression in 2025, the OS Zone dramatically ramped up its deterrence activities, **tripling** the number of crowdsourced prior art contests and **almost doubling** the number of administrative challenges to NPE-held patents compared to 2024. A vast majority of these deterrence efforts were specifically aimed to protect cloud native projects.

In 2024, CNCF launched the **Cloud Native Heroes Challenge** to engage cloud native technologists to help find prior art that can be used to defeat patent trolls. The winning prior art is published via the **PATROLL platform**. Through these contests, community members can earn swag, prizes, and recognition. In 2025, the Open Source Zone hosted 32 prior art contests, 31 of which were related to cloud native, and 6 of which were sponsored by CNCF. Through CNCF-sponsored contests, $15,000 in cash prizes, KubeCon + CloudNativeCon tickets, swag, and other incentives were awarded to cloud native community members.

END USER COMMUNITY

"We reduced CPU usage of Fluent Bit by 50% across our entire fleet, providing much-needed capacity to our entire research and applied infrastructure. This is the power of the CNCF ecosystem, when you deeply understand these tools, you can optimize them in ways that benefit everyone." **- FABIAN PONCE, MEMBER OF TECHNICAL STAFF, OPENAI**
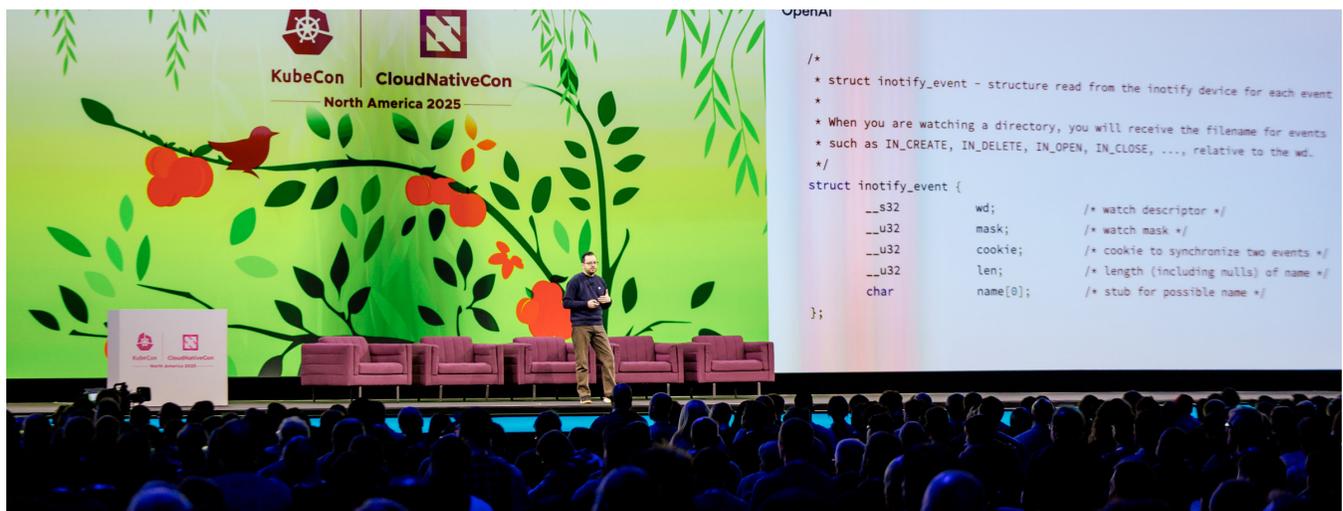
The CNCF End User community is a group of innovative, forward-thinking organizations that continuously push the boundaries of cloud native technology. These organizations use cloud native architectures to power their operations and are not limited to the cloud native service industry. They differ from vendors, consultancies, training partners, or telecommunications companies, as their primary goal is to harness the power of cloud native architectures to solve real-world problems rather than to sell cloud native services externally.

Cloud native architecture presents both challenges and opportunities, embraced by the tech-savvy, cloud native enthusiasts leading these efforts within end user companies. They foster a culture of self-service by developing solutions that are inclusive and support an iterative process. This self-service approach is vital for agile and resilient operations, as it empowers teams, catalyzes innovation, and accelerates the essential iterative feedback loop.

END USER AWARD WINNERS

This year's CNCF Top End User Awards were presented to Ant Group and Michelin, honoring their significant and impactful contributions to the cloud native ecosystem. These awards recognize end user organizations that have demonstrated exceptional commitment to adopting, contributing to, and furthering cloud native technologies and best practices within their own enterprises and the wider community.

SPRING 2025 WINNER

Ant Group—Ant Group has scaled Kubernetes to 15,000 nodes using all upstream components, demonstrating its expertise and ability to push the boundaries of cloud native infrastructure.

AUTUMN 2025 WINNER

Michelin—Michelin rebuilt its entire Kubernetes environment using open source tools. The move cut platform costs by 44%, reduced upgrade lead times by 85%, and doubled its Kubernetes footprint.

CASE STUDY CONTEST WINNERS

KUBECON + CLOUDNATIVECON EUROPE

Michelin—Faced with a shift in VMware's strategy, Michelin re-architected its Kubernetes platform to support 441 business applications across 62 clusters in cloud and on-prem environments. They used Cluster API, Crossplane, and ArgoCD to automate infrastructure management, cut platform costs by 44%, and cut upgrade lead times by 85%. This transformation improved scalability and efficiency and ensured Michelin remains an attractive workplace for top engineering talent.
Watch Michelin's keynote presentation >>

KUBECON + CLOUDNATIVECON CHINA

iFlytek—Training massive AI models at scale is tough—but doing it efficiently in Kubernetes is even tougher. iFlytek tackled key challenges in large-scale model training, including low GPU utilization, fragile workflows, and resource contention across teams by leveraging Volcano. They were able to boost GPU usage by over 40%, cut failure recovery time by 70%, and accelerated hyperparameter tuning by 50%.
Watch iFlytek's keynote presentation >>

KUBECON + CLOUDNATIVECON JAPAN

Tokyo Gas—Tokyo Gas reimagined its largest digital membership platform to accelerate innovation after market deregulation, moving from a lift-and-shift cloud approach to a truly cloud native architecture. Tokyo Gas adopted Kubernetes, Argo CD, and Istio to transition to microservices—achieving 4x faster deployments, 30% lower costs, and 30% less operational effort. With a small team, they launched their first microservice in just months, dramatically cutting down release times and building a scalable foundation for future growth. **Watch Tokyo Gas's keynote presentation >>**

KUBECON + CLOUDNATIVECON INDIA

Zepto—Zepto faced rapid microservice sprawl, siloed tooling, and increasing developer friction. To overcome these challenges, they adopted Backstage, Kubernetes, and Argo to build a unified developer portal. Zepto transformed their developer experience by visualizing service dependencies, automating onboarding, and accelerating deployments/rollbacks, all while improving reliability and team productivity.
Watch Zepto's keynote presentation >>

KUBECON + CLOUDNATIVECON NORTH AMERICA

OpenAI—OpenAI needed to ship unprecedented volumes of logs but faced CPU throttling issues that made scaling its DaemonSets infeasible. After examining how Fluent Bit uses system calls, the team found some problems with inotify and suggested other methods: more frequent checking of file status and reducing the frequency. The result was reduced CPU usage and improved reliability—work is now being prepared as an upstream patch for the broader Fluent Bit and OSS community.
Watch OpenAI's keynote presentation >>

EXECUTIVE SUMMIT

At KubeCon + CloudNativeCon North America, 40+ cloud native executives from end user companies gathered for an afternoon of thoughtful discussions about the AI transformation.

The discussion marked a shift from AI experimentation to institutional execution. Leaders shared that successful AI integration requires organizational agility. To avoid vendor lock-in, organizations are now prioritizing open standards and abstraction layers that ensure operational resilience amidst a volatile AI vendor landscape.

Key discussions focused on "guardrailed agility"—reconciling slow compliance cycles with the rapid pace of AI innovation. Rather than tracking "vanity metrics" like prompt counts and source lines of code, the community is moving toward outcome-based measurements like developer velocity and time-to-market. Ultimately, scaling AI mirrors the early days of DevOps: it requires structured change management and a commitment to human-centric upskilling.

See the **event report** for more details about the discussion, and join the **End User Community** to learn from peers and contribute to this influential group.

CERTIFIED KUBERNETES AI PLATFORM CONFORMANCE PROGRAM

As AI workloads increasingly rely on Kubernetes (82% of organizations build custom AI, 58% use Kubernetes, and 90% view open source as critical), the risk of fragmentation is high. To address this, CNCF launched the **Certified Kubernetes AI Conformance Program** in 2025. This program establishes minimum standards and configurations for running common AI/ML frameworks on Kubernetes, assuring enterprises of deployment confidence and providing vendors a compatibility baseline.

Mirroring the success of the established **Certified Kubernetes Conformance Program**, which standardized Kubernetes across over 100 platforms, this new initiative applies CNCF's model to AI infrastructure. The goal is to reduce confusion, ensure consistency, and accelerate AI adoption by setting clear, community-agreed requirements, testing compliance, and promoting open, standard APIs for AI tasks on Kubernetes.

INITIAL ADOPTERS AND MAJOR CONTRIBUTORS
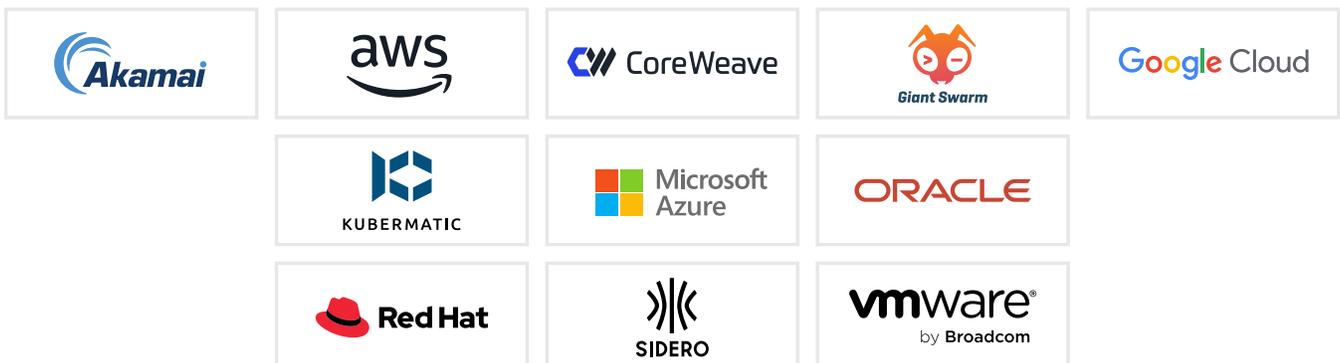
EVENTS

CNCF IS 10!

2025 marked the tenth anniversary of CNCF, a decade of accelerating innovation in cloud native technologies. Since its founding in 2015, CNCF has grown from a small collection of projects and 22 initial members into the world's largest open source foundation. Today, the foundation boasts over 230 projects, nearly 800 member companies, and an expansive community of over 300,000 contributors spanning 190 countries.

**TEN YEARS OF CLOUD NATIVE.
THE FUTURE STARTS HERE**

WELCOME TO

KubeCon | CloudNativeCon

North America 2025

TEN YEARS OF CLOUD NATIVE.
THE FUTURE STARTS HERE.

#cTENcf REGIONAL EVENTS

Throughout 2025, CNCF celebrated its 10th anniversary with the help of community-organized events around the world. These were collectively branded as the #cTENcf regional events, serving as a decentralized, worldwide celebration of a decade of cloud native innovation and collaboration.

The initiative saw tremendous participation, with **66 distinct local community groups** successfully organizing and executing events. In total, these groups hosted **61 separate celebration events** across the globe, demonstrating the widespread and diverse adoption of the CNCF's mission. These events were held across **33 countries**, highlighting the truly international nature of the cloud native ecosystem and the foundation's reach into various geographical regions and local tech communities. The celebrations provided platforms for networking, knowledge sharing, and showcasing local contributions to the cloud native landscape.

KUBECON + CLOUDNATIVECON EUROPE 2025

CNCF welcomed nearly 12,500 attendees to London in early April, making this the largest KubeCon + CloudNativeCon Europe event ever. The mood was upbeat, and attendees were eager to hear from a record 665 speakers across 325 sessions. The Excel London venue provided a spacious and comfortable backdrop for attendees to communicate, collaborate, and experience everything the event had to offer, from trumpet-playing Beefeaters to the Poster Sessions and the Demo Theater.

At KubeCon + CloudNativeCon Europe, three major themes dominated presentations and hallway conversations: platform engineering, AI, and observability. It was clear that companies of all sizes were eager to hear how others were solving some of the hardest challenges using cloud native technologies.

TOTAL REGISTRATION

12,418

1ST-TIME ATTENDEES

46%

SCHOLARSHIPS

314

What made this KubeCon even more special, though, were the conversations and connections. I had the chance to meet so many amazing people, talk about shared developer pain points, exchange ideas, laugh over common struggles, and discuss solutions. It reminded me once again how powerful and supportive this community is. I left feeling inspired and more motivated than ever to continue the work I've been doing over the past year. **- NITISH KUMAR, X**

CONTENT

2,947
SUBMISSIONS

665
SPEAKERS

325
SESSIONS

Have a look at the full details in the **transparency report**.

KUBECON + CLOUDNATIVECON
NORTH AMERICA 2025

9,300 attendees attended KubeCon + CloudNativeCon North America in 2025, showcasing the growing momentum behind cloud native and open source technologies, not just across North America, but around the world. Attendees gathered from the U.S., Europe, Australia, Japan, India, and beyond, a reminder of the community's global strength and reach.

Developers, maintainers, end users, and technologists took the opportunity to connect in person to share ideas, celebrate milestones, and discuss the future of cloud native. From deep dives in technical sessions and contributor summits to hallway conversations and project meetups, the energy was unmistakable. Keynotes and conversations focused on the pillars shaping the future of cloud native—AI, observability, platform engineering, and security—all anchored by open collaboration.

TOTAL REGISTRATION

9,388

1ST-TIME ATTENDEES

50%

SCHOLARSHIPS

283

KubeCon is all about meeting old friends and making new ones. I wish I could tag everyone in the post, but there are just too many! I've had some amazing conversations with each one of you at KubeCon and got to learn something new - whether it's just how to be a better speaker to navigating challenges hosting meetups. **- ATULPRIYA SHARMA, LINKEDIN**

CONTENT

2,247
SUBMISSIONS

644
SPEAKERS

409
SESSIONS

Have a look at the full details in the **transparency report**.

KUBECON + CLOUDNATIVECON CHINA 2025

It was another strong turnout in Hong Kong for KubeCon + CloudNativeCon China. It was clear that the momentum around cloud native, AI, observability, and, of course, open source continues to grow. This momentum fueled many sessions, discussions, and hallway conversations.

There were many new initiatives to foster the convergence between cloud native computing and artificial intelligence. These efforts provide a broader platform to explore both the technical and ethical dimensions shaping our collective future. They also underscore China's significant contributions to the CNCF ecosystem, which now accounts for approximately 20% of hosted projects.

TOTAL REGISTRATION

1,004

1ST-TIME ATTENDEES

48%

SCHOLARSHIPS

61

CONTENT

571
SUBMISSIONS

114
SPEAKERS

71
SESSIONS

Have a look at the full details in the **transparency report**.

KUBECON + CLOUDNATIVECON JAPAN 2025

The inaugural KubeCon + CloudNativeCon Japan 2025 was an unforgettable experience. Registration and sponsorships sold out, highlighting the momentum of cloud native and open source technologies in the region, with attendees coming from across Asia, India, and beyond.

Developers, maintainers, end users, and technologists came together to share ideas, celebrate innovation, and discuss the future of cloud native. From deep technical sessions and project maintainer meetups to keynotes highlighting AI, observability, security, and platform engineering practices, the passion and collaboration were evident in helping shape the ecosystem.

TOTAL REGISTRATION

1,502

1ST-TIME ATTENDEES

66%

SCHOLARSHIPS

59

CONTENT

746
SUBMISSIONS

112
SPEAKERS

71
SESSIONS

Have a look at the full details in the **transparency report**.

KUBECON + CLOUDNATIVECON INDIA 2025

The second annual KubeCon + CloudNativeCon India saw registration and sponsorships sell out once again, underscoring the incredible growth and momentum of cloud native and open source technologies in India.

From the deep-dive technical sessions and maintainer meetups to inspiring keynotes, the event was a vibrant showcase of the community's passion and commitment. Developers, maintainers, end users, and technologists came together to share knowledge, explore new ideas, and shape the future of cloud native.

TOTAL REGISTRATION

4,017

1ST-TIME ATTENDEES

74%

SCHOLARSHIPS

224

CONTENT

950
SUBMISSIONS

142
SPEAKERS

95
SESSIONS

Have a look at the full details in the **transparency report**.

EDUCATION

In 2025, the CNCF amplified its dedication to expanding the cloud native ecosystem. This was achieved by broadening its respected certifications, increasing job prospects, and enabling more individuals to enhance their hands-on skills in cloud native technologies.

To support the continued growth of platform engineering, the CNCF launched a comprehensive learning path, including two new certifications: the **Cloud Native Platform Engineering Associate** (CNPA) and the **Certified Cloud Native Platform Engineer** (CNPE). The CNPA is an initial multiple-choice exam, followed by the practical CNPE certification. Developed through the collaboration of hundreds of subject matter experts from over 50 companies, these exams highlight the robust partnership between the CNCF and the community.

This year also marks the launch of **Kyverno Certified Associate** (KCA)—a multiple-choice exam on Kyverno. The KCA certification confirms a user's proficiency in using Kyverno, an open source policy engine for Kubernetes. This proficiency includes leveraging policies to manage, validate, mutate, and generate Kubernetes resources.The KCA is designed for IT professionals like Kubernetes Administrators, DevOps/DevSecOps Engineers, and Security Analysts, and demonstrates expertise in cloud native management, policy automation, and security.

In 2025 CNCF's education program continued to grow. The following training courses and exams received considerable interest throughout the year:

- **Kubernetes Massively Open Online Course (MOOC)** hit 429,000 enrollments (7% increase from 2024).

- **Certified Kubernetes Administrator (CKA) exam** hit 291,000 enrollments (16% increase from 2024).

- **Certified Kubernetes Application Developer (CKAD)** hit 131,000 exam registrations (18% increase from 2024).

- **Certified Kubernetes Security Specialist (CKS)** exam hit 75,000 registrations (21% increase from 2024).

- **Kubernetes and Cloud Native Associate (KCNA)** exam hit 31,000 registrations (72% increase from 2024).

- **Kubernetes and Cloud Native Security Associate (KCSA)** exam hit 10,000 registrations (90% increase from 2024).

- **Prometheus Certified Associate (PCA)** exam hit 4,400 registrations (44% increase from 2024).

- **Istio Certified Associate (ICA)** exam hit 3,100 registrations (94% increase from 2024).

- **OpenTelemetry Certified Associate (OTCA)** exam hit 1,420 registrations (since its launch date in November 2024).

- **Certified Backstage Associate (CBA)** exam hit 895 registrations (since its launch date in November 2024).

- **Cloud Native Platform Engineering Associate (CNPA)** exam hit 720 registrations (since its launch date in April 2025).

- **Certified Cloud Native Platform Engineer (CNPE)** exam hit 170 registrations (since its launch date in November 2025).

- **Kyverno Certified Associate (KCA)** exam hit 790 registrations (since its launch date in November 2025).

- **Kubernetes and Cloud Native Training Partner (KCNTP)** program
  - 2025 - added 3 new KCNTPs, ended the year with 54 KTPs

- **Kubernetes Certified Service Provider (KCSP)** program
  - 2025 - added 25 new KCSPs, ended the year with 230 KCSPs

KUBESTRONAUT PROGRAM

In 2024, CNCF launched the **Kubestronaut** program to foster the growth of Kubernetes and open source cloud native technologies. The program provides training, learning resources, networking opportunities, and professional development to support cloud native professionals on their journey.

Since its launch, the Kubestronaut community has grown to over 3,000 members in more than 100 countries, each demonstrating deep expertise in Kubernetes and cloud native technologies.

GOLDEN KUBESTRONAUT PROGRAM

Building upon the successful Kubestronaut program, the CNCF introduced the Golden Kubestronaut program during KubeCon + CloudNativeCon Europe 2025 in April. This prestigious program recognizes professionals who have achieved the highest level of expertise across Kubernetes, cloud native technologies, and Linux administration. To earn the Golden Kubestronaut title, individuals must demonstrate exceptional dedication to cloud native learning by completing all 15 CNCF certifications in addition to the **Linux Foundation Certified System Administrator** (LFCS) certification.

Since its launch, the Golden Kubestronaut community has grown to more than 200 members in 55 countries, reinforcing CNCF's commitment to building a robust certification ecosystem and advancing the broader cloud native community. By encouraging professionals to complete the full suite of CNCF certifications, these initiatives help grow the pool of certified practitioners, boost participation in CNCF training and events, and solidify CNCF's position as the leading authority in cloud native education.

PROJECT UPDATES AND SATISFACTION

Throughout 2025, CNCF underscored its commitment to making cloud native ubiquitous, hosting 34 **graduated** projects, 36 **incubating** projects, 144 **sandbox** projects, and 26 **archived** projects.

PROJECT COUNT OVER TIME
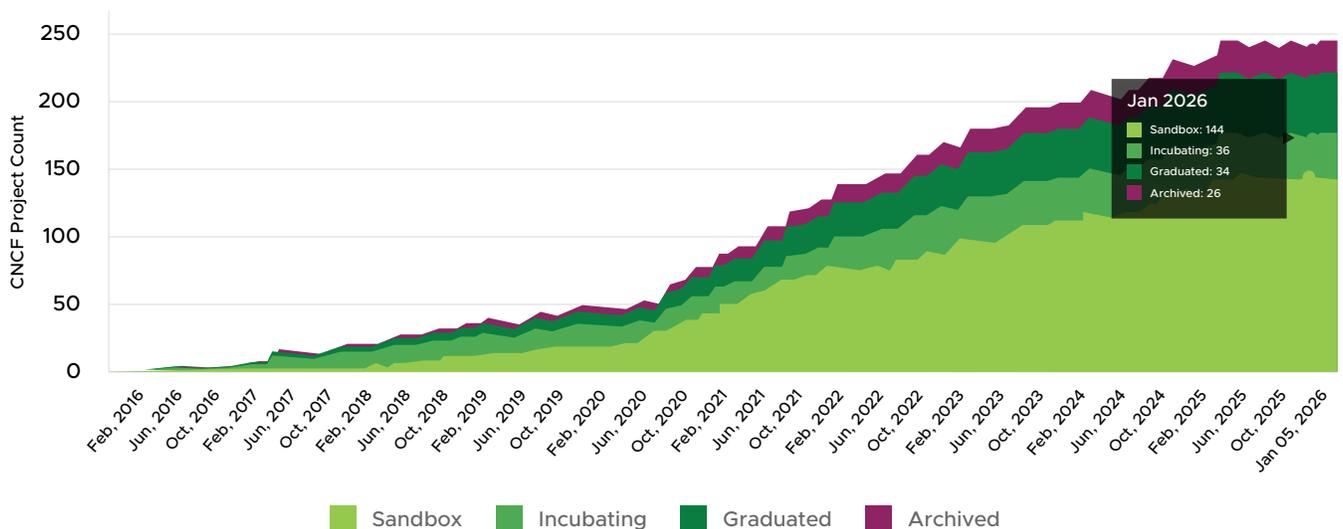
The CNCF Project Count in 2024: 30 graduated, 34 incubating, 129 sandbox

NEW PROJECTS

In 2025, the **Technical Oversight Committee** (TOC) accepted 30 new projects.

1
INCUBATING

29
SANDBOX

PROJECT MOVES

Projects increase their maturity level by demonstrating to the **TOC** that they have attained end user and vendor adoption, established a healthy rate of code commits and codebase changes, and attracted committers from multiple organizations. In 2025, 4 projects graduated, 5 moved to the incubating level, while 13 were archived.
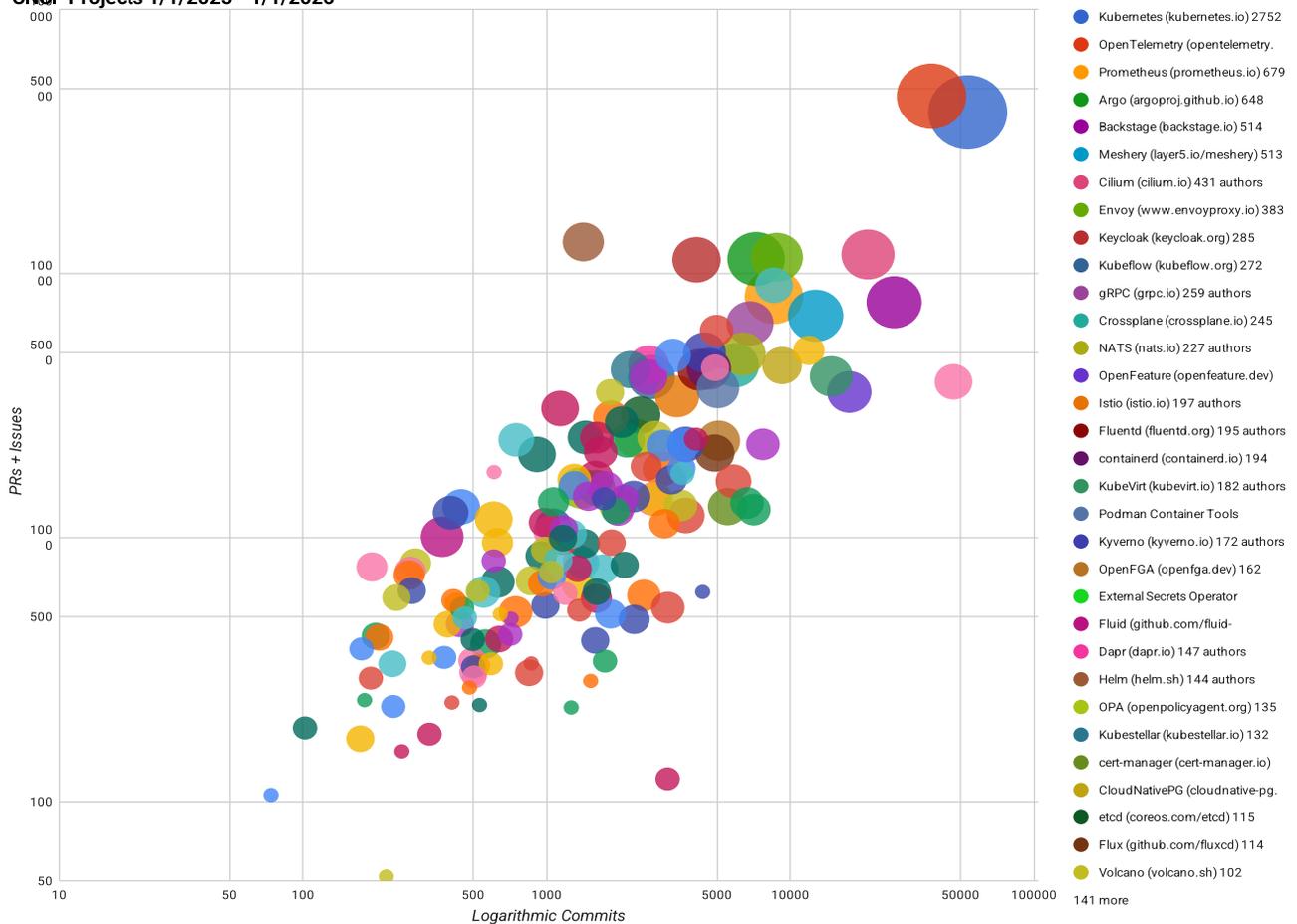
GRADUATIONS

in-toto

CubeFS

Knative

Crossplane

CNCF PROJECT VELOCITY

Ten years into CNCF's journey, one thing hasn't changed: we still rely on real signals—open source contributions, real-world deployments, and community energy—to understand where we're headed. Cloud native is now invisible infrastructure, quietly powering our everyday lives. And by watching the pace of project activity, we get a front-row seat to how teams are building the future.

We dig into signals like commit frequency, contributor growth, community expansion, and deployment patterns to map where momentum is building and to understand why it matters. These signals give us a transparent way to identify the technologies and approaches that are gaining real traction. It's not just about what's popular, but what's sustainable, what's solving real problems, and what's likely to shape the next phase of cloud native infrastructure.

CNCF Projects 1/1/2025 - 1/1/2026

Legend:
- Kubernetes (kubernetes.io) 2752
- OpenTelemetry (opentelemetry.
- Prometheus (prometheus.io) 679
- Argo (argoproj.github.io) 648
- Backstage (backstage.io) 514
- Meshery (layer5.io/meshery) 513
- Cilium (cilium.io) 431 authors
- Envoy (www.envoyproxy.io) 383
- Keycloak (keycloak.org) 285
- Kubeflow (kubeflow.org) 272
- gRPC (grpc.io) 259 authors
- Crossplane (crossplane.io) 245
- NATS (nats.io) 227 authors
- OpenFeature (openfeature.dev)
- Istio (istio.io) 197 authors
- Fluentd (fluentd.org) 195 authors
- containerd (containerd.io) 194
- KubeVirt (kubevirt.io) 182 authors
- Podman Container Tools
- Kyverno (kyverno.io) 172 authors
- OpenFGA (openfga.dev) 162
- External Secrets Operator
- Fluid (github.com/fluid-
- Dapr (dapr.io) 147 authors
- Helm (helm.sh) 144 authors
- OPA (openpolicyagent.org) 135
- Kubestellar (kubestellar.io) 132
- cert-manager (cert-manager.io)
- CloudNativePG (cloudnative-pg.
- etcd (coreos.com/etcd) 115
- Flux (github.com/fluxcd) 114
- Volcano (volcano.sh) 102
- 141 more

X-axis: *Logarithmic Commits* — 10, 50, 100, 500, 1000, 5000, 10000, 50000, 100000
Y-axis: *PRs + Issues*

NOTE: We use bubble charts to show three axes of data: commits, authors, and comments/pull requests, and plot on a log-log chart to show the data across large scales.

- The bubble's area is proportional to the number of authors
- The y-axis is the total number of pull requests and issues
- The x-axis is the number of commits

PROJECT VELOCITY KEY TAKEAWAYS

Here are the main takeaways I see from these charts:

- **Kubernetes** continues to lead the ecosystem with the largest contributor base. That sustained velocity reinforces its role as the foundation of modern infrastructure across the enterprise. Kubernetes continues to build upon its success as it evolves to be a critical operating system behind AI.

- **Backstage** has more than doubled its contributions since 2024. Thanks to its focus on developer experience, it's now the leading open source IDP, playing a foundational role in the rise of platform engineering. As more organizations prioritize internal platforms to accelerate developer productivity and consistency, Backstage is becoming a go-to solution for building paved paths that scale.

- **OpenTelemetry** is picking up serious momentum, with a 39% rise in commits and a contributor base that grew from 1,301 to 1,756 in just one year; that's a 35% increase. Now, as the second-largest CNCF project, it's clear that real-time observability is becoming essential to how teams build, run, and scale systems.

- **Kubeflow** has broken into the top 30 CNCF projects with an 85% increase in contributor activity, signaling where things are heading. As more organizations explore AI use cases, we're seeing cloud native tools—and the CNCF ecosystem—play an increasingly central role in making that infrastructure scalable and open.

- **Crossplane** is also seeing rising momentum, with a 20% bump in contributors, which speaks to the growing need for open, extensible control planes, especially as organizations navigate multicloud complexity.

- **GitOps** remains central to cloud native operations and tools like Argo and Flux are maintaining strong community engagement, showing that declarative workflows are here to stay.

All of the **current** and **past** reports are available on GitHub.

– Chris Aniszczyk, CTO, CNCF

SECURITY

Security remains a primary concern across the cloud native ecosystem. As cloud native technologies serve as the foundation for a larger portion of the world's digital infrastructure, the integrity of CNCF projects becomes both a technical imperative and a societal responsibility. In 2025, CNCF prioritized security audits, robust threat modeling, and innovative testing approaches to ensure the safety of its projects and community.

Open source supply chain attacks have grown in both frequency and sophistication, with recent high-profile vulnerabilities such as the XC issue underscoring the need for continuous vigilance. CNCF's focus on project security goes beyond mere issue patching; it's a commitment to building and maintaining trust. Over the past few years, CNCF has invested more than $3 million in security audits and tooling, partnering with organizations such as the Open Source Technology Improvement Fund (OSTIF) to deliver deep, actionable security insights.

The CNCF's commitment to security audits has yielded significant results, fostering confidence among end users and contributors. These audits successfully identified and resolved critical vulnerabilities, markedly strengthening the security posture of vital projects. The impact in 2025 was substantial: CNCF-sponsored audits uncovered and resolved more than 155 significant security issues across 18 projects. Furthermore, this initiative informed over 280 hardening recommendations and involved maintainers in over 3,800 hours of expert security collaboration.

CNCF's security efforts are deeply collaborative and transparent, reflecting a community-wide commitment to sustainable, reliable software.

FUNDED SECURITY AND FUZZING AUDITS
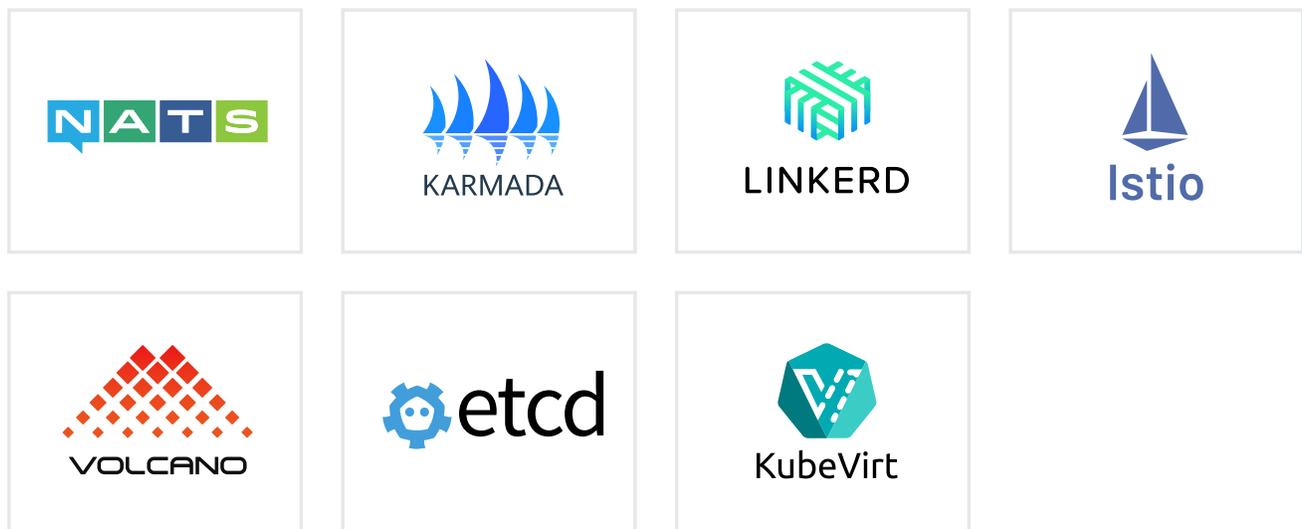
PHIPPY AND FRIENDS

From a humble PHP app, Phippy has gone on to help thousands take their first steps to understanding cloud native computing—from containerization to automation. Today, Phippy and Friends' mission is to demystify cloud native computing and explain complicated concepts in a compelling, engaging, and easy-to-understand manner.

In 2025, 4 projects donated characters. Read more about them and check out the **Phippy and Friends** makeover!

ARGI

BITZY

INDIGO

KUACK

COMMUNITY ENGAGEMENT

KCD mention, X: The energy at #kubecon is unreal! @SaiyamPathak, @satyampsoni, and @abhinavd26 are here soaking in all the excitement, learning from amazing sessions, and already gearing up for something special, "KCD Delhi!"

KUBERNETES COMMUNITY DAYS (KCD)

KCDs are global community-organized events that gather adopters and technologists to learn, collaborate, and network, with a goal of furthering the adoption and improvement of Kubernetes and cloud native technologies around the world.

KCDs 2025 at a glance

- 29 KCDs | a decrease of 17% from 2024
- 10,500+ attendees | an increase of 3.5% since 2024
- 22 countries
- Presentations in English, Chinese, French, and Spanish

CNCF also implemented additional measures to help support KCD communities and organizers to ensure program success:

- CNCF standardized the **KCD logo** as a base to each unique KCDs event
- Each KCD received 10 training vouchers to give away (at a 100% discount)
- Each KCD had the choice to award Credly badges to speakers and/or volunteers

CLOUD NATIVE COMMUNITY GROUPS (CNCGS)

CNCGs (community.cncf.io) are global cloud native chapters that gather adopters and technologists just as KCDs do. These groups promote learning, collaboration and networking around Kubernetes and cloud native technologies on an in-person, virtual or hybrid meetup event scale

CNCGs 2025 at a glance

Regional Community Groups
- 232 active chapters | an increase of 6.5% from 2024
- 849 meetups hosted | a decrease of 6% from 2024
  - Of which 215 meetups were virtual (25%)

Online Initiatives
- 10 chapters
- 91 online meetups | a decrease of 46.5% from 2024

NOTE: These numbers are not inclusive of virtual-only chapters.

INCLUSION AND ACCESSIBILITY

CNCF continued to strengthen and expand its commitment to #TeamCloudNative by investing in community-driven initiatives that sustain momentum, drive growth, and accelerate adoption. At the same time, the foundation has remained deeply focused on inclusion and accessibility, ensuring that the ecosystem is a welcoming and supportive environment where everyone can thrive.

CNCF is dedicated to fostering the growth of this exceptional cloud native community while striving to ensure that every participant feels valued and included—regardless of gender, gender identity, sexual orientation, disability, race, ethnicity, age, religion, or economic status. To date, CNCF has awarded 7,950 scholarships through the Dan Kohn Scholarship Fund.

The CNCF allocated travel funding for 412 speakers and scholarship recipients to attend its 2025 events. This financial support was crucial for individuals from marginalized or traditionally underrepresented communities, helping overcome economic obstacles to their participation. It also distributed 538 complimentary registration passes to individuals in need, further expanding access and strengthening inclusivity across our community.

Scholarships were funded by sponsorships from…
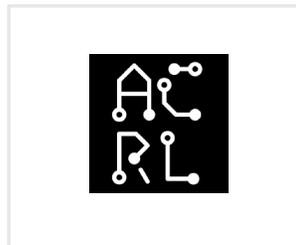
COMMUNITY HUB

Designed as a central gathering place, the Community Hub fostered meaningful connections through community-led programming, skill-building workshops, and networking opportunities that supported both personal and professional growth.

The Community Hub hosted a range of community gatherings, including Women, Deep Roots, LGBTQ+, and Students, creating spaces for shared experiences, peer support, and collective learning. Additional workshops and sessions addressed critical topics such as advocacy, accessibility, and professional

development. These included a Deaf and Hard of Hearing Advocacy Session, a Sign Language Crash Course, Peer Group Mentoring, a Bystander Intervention Workshop, *Your Voice on Stage: Creating Proposals That Get Noticed*, the Merge + Meet: Merge Forward Kickoff Meeting for underrepresented groups and allies, *Agile for Every Brain*, a neurodivergent interactive discussion, and a Building Resilience Workshop.

With 862 participants across KubeCon + CloudNativeCon Europe and North America, the Community Hub continued to be a vital and meaningful part of the attendee experience. This programming was supported by Google Cloud, sponsor of the Hub at both events, and Zededa, sponsor of the North America Hub—enabling broader access, connection, and learning.

COMMUNITY AWARDS

The CNCF Community Awards, now in their ninth year, honor key contributors from all CNCF projects and TAGs who exceed expectations in shaping the cloud native landscape. The awards included:

- **Top Committer Award:** An individual with incredible technical skills and notable technical achievements in one or multiple CNCF projects. The 2025 recipient was John Howard.

- **Chop Wood Carry Water Award:** This award recognizes contributors who spend countless hours completing often mundane tasks. CNCF was proud to acknowledge the amazing efforts of seven individuals for their outstanding contributions in 2025: Mario Jason Braganza, Lubomir I. Ivanov, Daniel Hawton, Janet Kuo, Yuichi Nakamura. CNCF also offers special recognition for Han Kang, who recently passed away. A longtime contributor to Kubernetes SIG Node and kubelet, Han's generosity and technical insight had a profound effect on the community. He is remembered not only for his work but also for his spirit of mentorship and collaboration.

- **The TAGGIE:** Presented to the person who has done the most to advance CNCF's Technical Advisory Groups (TAGs). TAGs scale contributions by the CNCF technical and user community while retaining integrity and increasing quality in support of CNCF's mission of making cloud native ubiquitous.

The recipients of the 2025 Community Awards include Dawn Foster, Marina Moore, Leo Pahlke, and Mauricio Salatino.

- **Top Documentarian:** This award recognizes excellence in documentation contributions to CNCF and its projects. The 2025 recipients were Aidan Delaney, Tiffany Hrabusa, and Seokho Son.

- **Cloud Native Hero:** Recognizes individuals who champion the defense of open source technology by participating in the CNCF and Unified Patents Cloud Native Heroes Challenge. This award honors cloud native developers and technologists for submitting "prior art," which is crucial in countering patent threats and helping to stop nuisance lawsuits launched by patent trolls who increasingly target cloud native open source due to its success. 2025 recipients include Chris Buccella, Ketan Sachdeva, and Ritu Tyagi.

- **Outstanding Mentor:** Celebrating contributions to mentorship and community growth. For this inaugural award, CNCF recognizes Lee Calcote, founder of Layer5, for serving as a mentor over 60 times in the past five years through CNCF and Linux Foundation programs.

As CNCF marked **10 years**, it also had the distinct honor of presenting the **Lifetime Achievement Award** to **Dawn Chen and Kevin Wang** in recognition of their invaluable contributions over the past decade in shaping and supporting the Kubernetes and foundation communities.

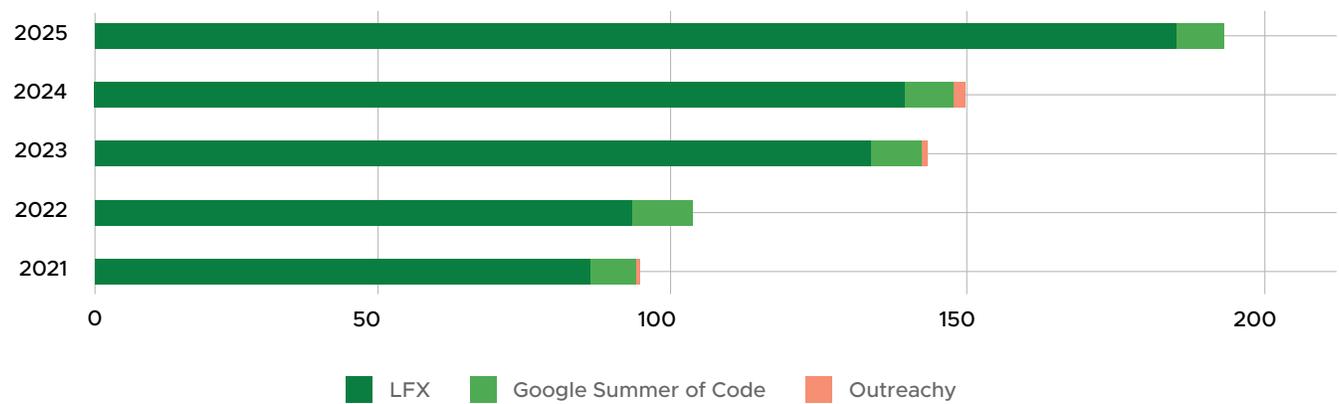*"The biggest project in the CNCF is Community"* **- ATULPRIYA SHARMA, X**

MENTORING

CNCF proudly supported nearly 200 individuals through various mentoring and internship opportunities in 2025, including the LFX mentorship platform and Google Summer of Code (GSoC). These programs are important catalysts for internships to have an impact on future technologies that everyone depends on. Since 2020, 25 mentees participating with the CNCF in the LFX mentorship program have gone on to become CNCF project maintainers.
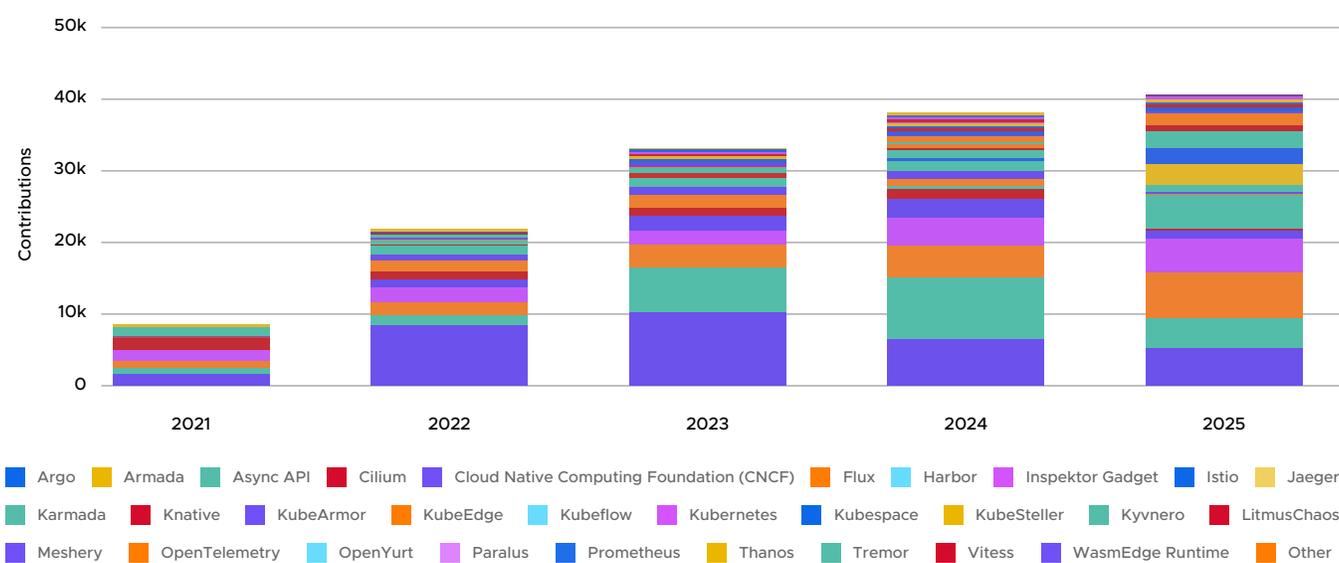
CNCF sponsored 187 students to work on dozens of CNCF projects, including Kubernetes, Istio, Prometheus, Envoy, Kyverno, and Backstage.

176
LFX MENTORSHIP

11
GSOC

PROGRAM GROWTH

Legend: LFX · Google Summer of Code · Outreachy

MENTEE CONTRIBUTIONS BY PROJECT

Legend: Argo · Armada · Async API · Cilium · Cloud Native Computing Foundation (CNCF) · Flux · Harbor · Inspektor Gadget · Istio · Jaeger · Karmada · Knative · KubeArmor · KubeEdge · Kubeflow · Kubernetes · Kubespace · KubeSteller · Kyvnero · LitmusChaos · Meshery · OpenTelemetry · OpenYurt · Paralus · Prometheus · Thanos · Tremor · Vitess · WasmEdge Runtime · Other

TOP CONTRIBUTING MENTEES

Mentee	Score
Pranav Singh	8456
Mariam Fahmy	7794
Vishal Choudary	6168
Aabid Sofi	5775
Sanskar Jaiswal	4787
Ashish Tiwari	4531
Raj Babu Das	3249
Cheng Hao Yang	2931
Prasanth Baskar	2677
Nitish Kumar	2629
Shao Wang	2401
Gaurav Chadha	2134
Abhishek Kumar	1989
Faeka Ansari	1913
Nithish Karthik	1879
Rudraksh Pareek	1871
Ansh Goyal	1530
Zhe Cheng	1527
Arsh Sharma	1472
Vyom Yadav	1463
Aadhitya A	1394
Namkyu Park	1374
Rohit Dandamudi	1360
Anushka Mittal	1308
Khaled Emara	1280
Harshvir Potpose	1266
Ammar Yasser	1231
Yifei Zhang	1206
Prateek Nandle	1195
Yash Sharma	1169
Prashant Mishra	1145
ACHREF BEN SAAD	1082
kunal Dugar	1033
Paul Arah	1010

Legend: AGNTCY, Antera, Argo, Armada, AsyncAPI, Backstage, BFE, Buildpacks, Cartography, Carvel, Cedar Policy, cert-manager, Chaos Mesh, Cilium, Cloud Native Computing Foundation (CNCF), CloudNativePG, Containerd, Copa, CoreDNS, Cortex, CRI-O, Crossplane, Dapr, Deepspeed, Devfile, Dragonfly, Envoy, Etcd, Falco, Fluentd, Flux, Harbor, Headlamp, in-toto, Inspektor Gadget, Istio, Jaeger, karmada, KCL, kcl, KEDA, Keptn, kernelCl Project, +57 more

MENTEES > MAINTAINERS

% MENTEES CONTRIBUTING IN THE YEAR FOLLOWING THEIR TERM

Legend:
- Mentees contributing in the year post-term
- Mentees with 2+ contributions in the year post-term
- Mentees contributing 2-12 months post-term
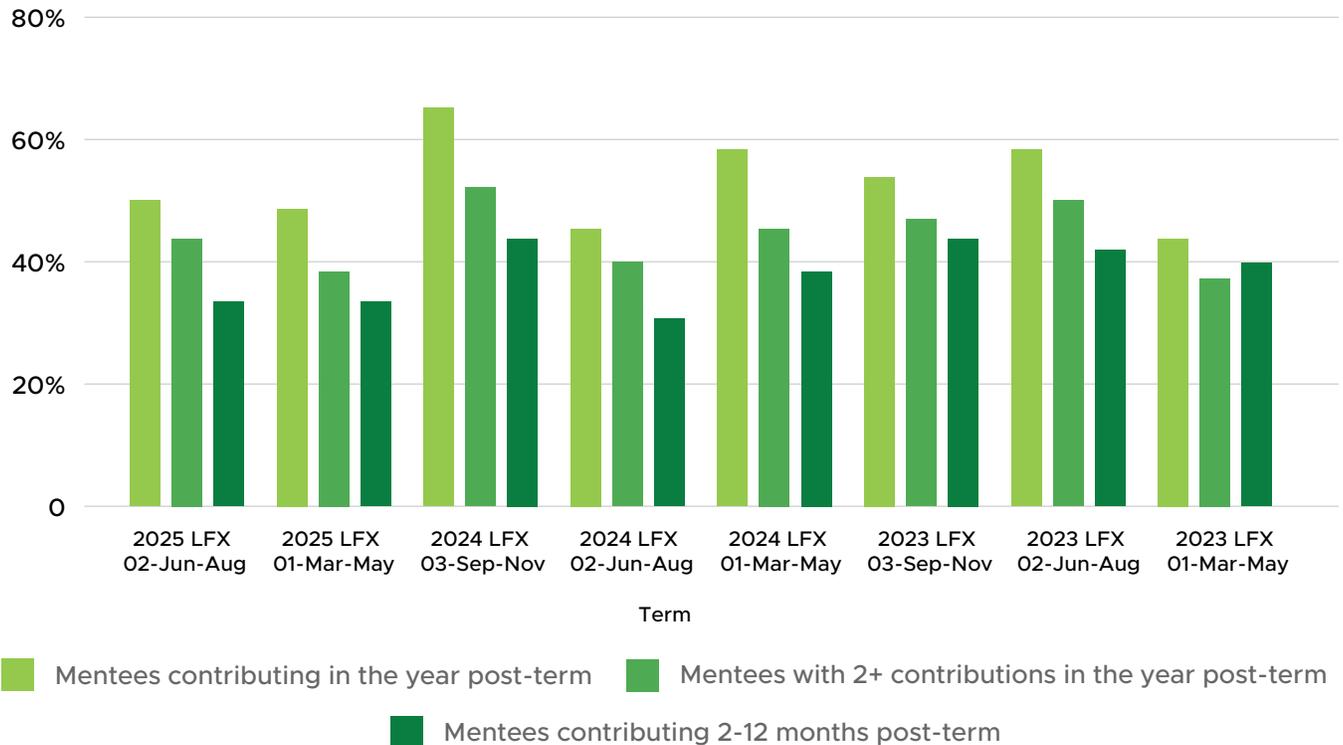
FUNDING

CNCF's revenue is derived from four primary fundraising sources: membership, event sponsorship, registration, and education.

A basic premise behind the CNCF, its conferences (including KubeCon + CloudNativeCon), and open source in general is that interactions are positive-sum. There is no fixed amount of investment, mindshare, or development contribution allocated to specific projects. Equally important, a neutral home for a project and community fosters this type of positive-sum thinking and drives the growth and diversity that the CNCF believes are core elements of a successful open source project.

FUNDRAISING SOURCES
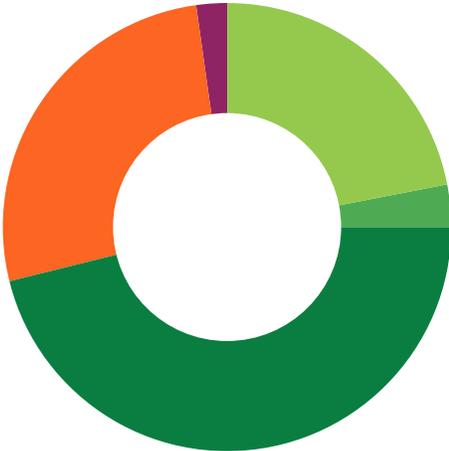
2025 Chart source: **CNCF Graphs**

22.0%
MEMBERSHIP

3.0%
TRAINING

46.2%
EVENT SPONSORSHIP

2.0%
OTHER REVENUE

26.8%
EVENT REGISTRATION

We hope you enjoyed reflecting on all the great things we accomplished together in 2025. Your comments and feedback are welcome at **info@cncf.io.**

We anticipate seeing you in 2026! Be sure to check our calendar for upcoming community events in your area, and remember to register for **KubeCon + CloudNativeCon Europe** in Amsterdam this March.

–The CNCF Team