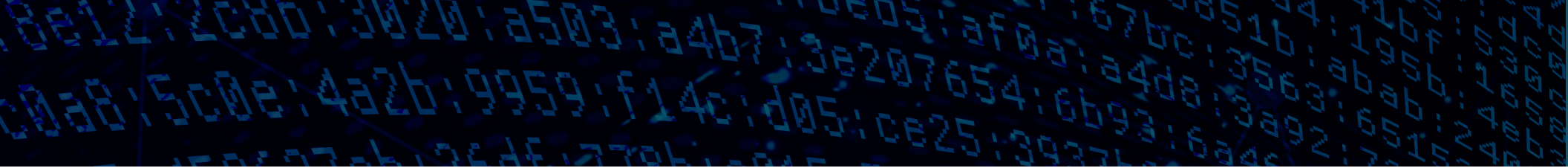


ARIN

American Registry for Internet Numbers

ANNUAL REPORT

2022



The American Registry for Internet Numbers, a nonprofit member-based organization, supports the operation of the Internet through the management of Internet number resources throughout its service region; coordinates the development of policies by the community for the management of Internet Protocol number resources; and advances the Internet through informational outreach.

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ABOUT ARIN

What is ARIN?

The **American Registry for Internet Numbers** (ARIN) is a nonprofit, member-based organization whose primary role is managing the distribution of Internet number resources (IPv4 and IPv6 addresses and Autonomous System Numbers [ASNs]) to entities within its service region. Established in December 1997 in Chantilly, Virginia, ARIN is one of five Regional Internet Registries (RIRs) that not only ensure the uniqueness of IP addresses and ASNs but also support the operation and growth of the Internet through technical coordination, collaboration, and the promotion of the participatory policy development model. ARIN, as a responsible steward of Internet number resources within its region, contributes to sustainable Internet development by ensuring the transparency of the distribution process, the accuracy of registration data, and the openness of the community-driven policy development process.

Services Offered

Registration Services

ARIN's primary function is the allocation and transfer of Internet number resources, but ARIN also maintains Whois and WhoWas records, reverse delegation registration (also known as reverse Domain Name System [DNS]), and help desk and customer support services.

Technical Services

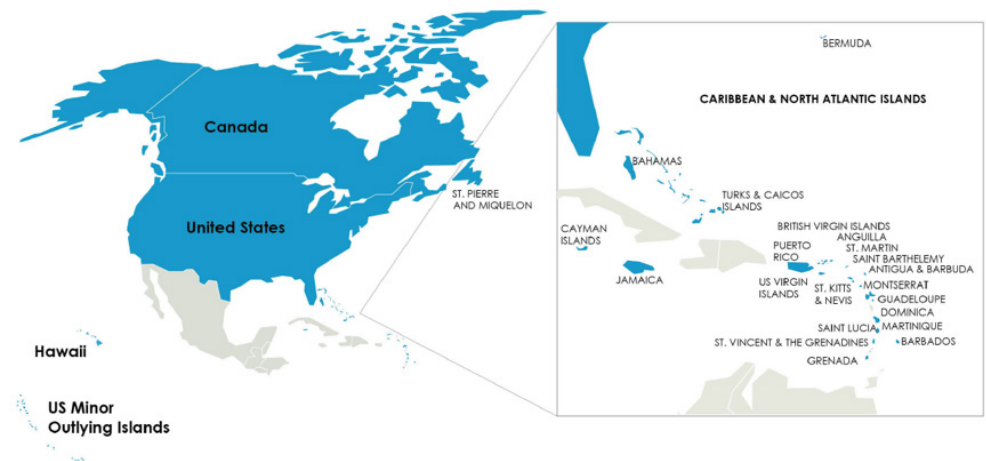
ARIN develops, implements, and supports both internal systems and community services like ARIN Online, Registration Data Access Protocol (RDAP), the Internet Routing Registry (IRR), and Resource Public Key Infrastructure (RPKI).

Organization Services

ARIN coordinates meaningful interaction between members, stakeholders, and the organization through the facilitation of an inclusive policy development process, information services and mailing lists, outreach and education, and community engagement through events.

ARIN's Service Region

ARIN currently serves approximately **40,000** organizations and manages roughly **8 million** registration records, including both public Whois records and internal database records.



The ARIN region includes Canada, 25+ Caribbean and North Atlantic economies, Antarctica, and the United States and minor outlying areas.

FROM THE PRESIDENT

JOHN CURRAN

President and CEO

Key Takeaways

Implemented new, harmonious fee structure for all customers

Retired the non-authenticated Internet Routing Registry

Continued to enhance ARIN's routing security offerings

Released an updated Registration Services Agreement and Legacy Registration Services Agreement

Celebrated ARIN's 25th anniversary

2022 marked a very momentous occasion for ARIN as we celebrated our 25th anniversary and our 50th members meeting. ARIN began the year with the implementation of our new harmonized fee structure that allowed all customers holding IP address blocks under a Registration Services Agreement (RSA/LRSA) to become Service Members. Furthermore, we offered Service Members the option to become General Members if they were interested in participating in ARIN's governance and election processes.

As part of our ongoing efforts to expand and improve our services, ARIN achieved a significant milestone by formally retiring the non-authenticated Internet Routing Registry (IRR). This marked the completion of the transition to ARIN's authenticated IRR, which is a critical step in ensuring the security and stability of the Internet.

Furthermore, we opened up the availability of ARIN's Premier Support Plan (PSP) to all our customers in August. This white-glove concierge service provides personalized assistance and technical expertise to help participating customers more readily address their unique needs and challenges. We are thrilled to offer this enhanced level of support to interested customers.

We conducted a survey to assess support for an array of suggestions that have been collected through the ARIN Consultation and Suggestion Process (ACSP). We were not surprised to hear that routing security remains a primary concern for our customers and community. Earlier in the year, ARIN released its Publication Service for Delegated Resource Public Key Infrastructure (RPKI), providing our customers with a third technical approach to choose from when securing their resources with ARIN. We were pleased to see this survey feedback confirmed we have been working in the right direction, particularly with our routing security services.

We released an updated Registration Services Agreement (RSA Version 13.0)/Legacy Registration Services Agreement (LRSA Version 5.0) so that organizations are more easily able to utilize ARIN's full suite of services. This also included an updated Relying Party Agreement (RPA), which was a necessary step that allowed ARIN to change the way we manage our Trust Anchor Locator

(TAL) to improve customer convenience, including clarifications that public distribution of the ARIN TAL (including embedding it in Relying Party software) is allowed.

Over the past year, ARIN was pleased to be able to restart our outreach efforts with the resumption of in-person gatherings. We successfully hosted several ARIN on the Road events across our region and actively participated in several Internet community events throughout the year. We also held two successful hybrid Public Policy and Members Meetings – ARIN 49 in Nashville, Tennessee, and ARIN 50 in Los Angeles, California – and were thankful for the chance to greet many of our community members face-to-face again.

As always, ARIN continued to manage the allocation and transfers of IPv4, IPv6, and Autonomous System Numbers (ASNs) in the ARIN region in accordance with our community-developed policies. We also issued several consultations to our community on improving our governance and services, including topics such as the ARIN Elections and Internet number resource policy development processes, increasing the size of the ARIN Board of Trustees, a new General Members mailing list, and the enforcement of two-factor authentication for all ARIN Online accounts.

And to wrap up the year, we celebrated ARIN's 25th anniversary in late December. Over the last quarter century, we've seen how the Internet has become an essential part of our daily lives. We use the Internet to connect with each other – be it with friends, family, colleagues, public safety officials, governments, or schools. At ARIN, we remain committed to preserving these connections and will continue to work toward the stability and security of the Internet Number Registry System, in coordination with our global colleagues, at the same high standard you have come to expect from us.

These are just some of the successes ARIN was happy to celebrate in its 25th year of operation. On behalf of all of us here at ARIN, I'd like to extend my heartfelt gratitude to every one of you who supported us in achieving our organizational objectives during what was a challenging year. As we move forward, I am optimistic and look forward to a promising 2023 for ARIN and its community!

FROM THE BOARD

BILL SANDIFORD

Chair, ARIN Board of Trustees

Key Takeaways

Improved the ARIN Election process via community consultation feedback

Expanded the size of the Board of Trustees to 10 seats

Established the Risk and Cybersecurity Committee and made the Nomination Committee a standing committee

Revised the ARIN Bylaws

Adopted eight Recommended Draft Policies

We are delighted to report that in 2022 the ARIN Board of Trustees continued to serve our community, improve the organization, and uphold the mission of ARIN with the same dedication and excellence you've come to expect from us over the last 25 years.

One of the ARIN Board's primary responsibilities is the effective governance of the organization. Early in 2022, the Board launched a series of community consultations. These consultations provided the ARIN community opportunities to provide feedback on our proposals to enhance ARIN governance. This feedback was critical to the improvements made to the ARIN Election process. In addition, the Board created two new standing committees: the Risk and Cybersecurity Committee and the Nomination Committee. The Nomination Committee was formerly a special committee, but it was made into a standing committee in May to recognize its essential nature.

Another important change was the expansion of the ARIN Board to 10 seats rather than the current seven. The phasing in of this change began with the inclusion of one extra seat for the Board of Trustees in the 2022 ARIN Elections. The addition of an extra seat will continue through 2025. We hope having a larger Board will enhance the diversity of thought and overall effectiveness of the Board in serving the community.

ARIN established cybersecurity as a top organizational priority in 2022. Between achieving SOC 2 Type 1 certification for our Resource Public Key Infrastructure (RPKI) services and planning for the enforcement of two-factor authentication for all ARIN Online accounts, we have prepared ourselves for other security projects looming on the horizon and new challenges ahead – all with the goal of keeping the ARIN registry secure.

We are proud to highlight several other notable achievements from 2022. These include the adoption of a new Registration



Services Agreement, the introduction of a new processing fee for transfers, revisions to the ARIN Bylaws, and the adoption of eight Recommended Draft Policies.

As the year drew to a close, we said goodbye to outgoing Board member Catherine Middleton and welcomed two new trustees: Hank Kilmer and longtime Advisory Council member Rob Seastrom. We thank Catherine for her service and look forward to working with Hank and Rob.

Finally, we wish to express our sincere appreciation to ARIN's members, community, volunteers, and staff for their unwavering dedication and hard work throughout 2022. It is through your commitment and trust in ARIN and its Board that we enjoyed a successful year.

We have an array of exciting projects planned for 2023, and we hope to see you at an ARIN event soon.

BOARD OF TRUSTEES

2022 BOARD MEMBERS

Bram Abramson

Nancy Carter,
Treasurer

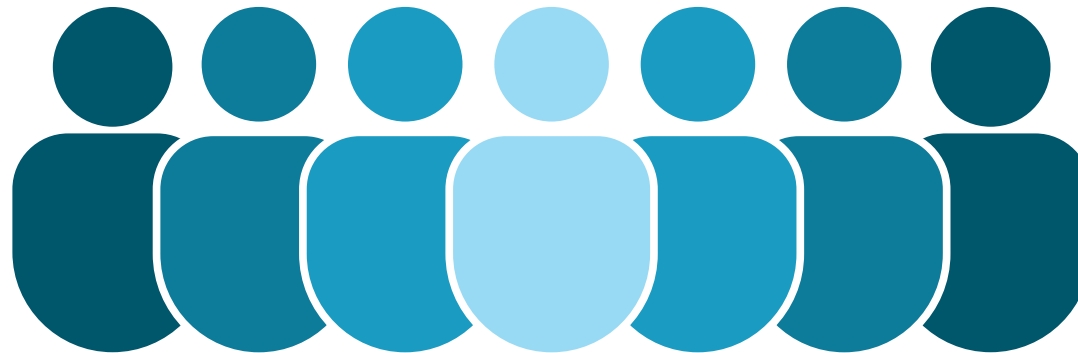
John Curran,
President & CEO

Peter Harrison

Catherine
Middleton

Tina Morris,
Vice Chair

Bill Sandiford,
Chair



The Board establishes and maintains authority over ARIN's scope, mission, and strategic and fiscal direction. The Board also oversees committee nominations, appointments, and elections, and votes on community-developed draft policies in accordance with the Policy Development Process (PDP).

LEARN MORE
ABOUT THE PDP



In 2022, the Board of Trustees consisted of seven members and a Board Secretary. Six members were elected by ARIN's membership, and the President and CEO of ARIN, John Curran, served as the seventh member. The role of Board Secretary was fulfilled by ARIN's General Counsel, Michael Abejuela.

In 2022, the Board held four in-person meetings. The rest of the meetings were held via teleconference.

2022 BOARD
MINUTES



2022 ELECTION RESULTS

In November 2022, **Robert Seastrom** and **Hank Kilmer** were elected to the ARIN Board of Trustees, and incumbent **Bill Sandiford** was re-elected to the Board of Trustees. Each will serve a three-year term having commenced 1 January 2023.

ARIN ELECTION
PROCESSES



BOARD ACTIONS

Adopted ARIN Board Standing Rules

Elected officers:

Bill Sandiford, Chair
Tina Morris, Vice Chair
Michael Abejuela, Secretary
Nancy Carter, Treasurer

Accepted committee charters

Compensation Committee Charter, Mailing List AUP Committee Charter, Finance Committee Charter, Nominations Committee Charter, Governance Committee Charter, and Risk and Cybersecurity Charter

Appointed Board members to committees

Compensation: Bill Sandiford (Chair), Nancy Carter, Tina Morris
Finance: Nancy Carter (Chair), Bram Abramson, Catherine Middleton, Tina Morris
Governance: Catherine Middleton (Chair), Nancy Carter, Peter Harrison
Mailing List AUP: Bram Abramson
Risk and Cybersecurity: Peter Harrison (Chair), Tina Morris, Bill Sandiford
Nomination: Peter Harrison (Chair), Bram Abramson
Election Officer/Vote Counter: Nancy Carter
NRO EC Observer: Bill Sandiford

Adopted ARIN Draft Policies

- *Recommended Draft Policy ARIN-2021-2: Special Use IPv4 Space Out of Scope for Purposes of Determining Waitlist Eligibility*
- *ARIN-edit-2021-5: Update ISP and End-User Reference for 2022 Fee Schedule*
- *Recommended Draft Policy ARIN-2021-3: Private AS Number and Unique Routing Policy Clarifications*
- *Recommended Draft Policy ARIN-2021-4: Clarifications to Sections 6.5.2.1, 8.3, 8.4, and 8.5.6*
- *ARIN-edit-2022-6: Editorial Clean-up of NRPM Section 2.12 and 2.14*
- *ARIN-edit-2022-7: Editorial Clean-up of NRPM Section 2.16*
- *Recommended Draft Policy ARIN-2022-1: MDN Clarification for Qualification*
- *Recommended Draft Policy ARIN-2020-6: Allowance for IPv4 Allocation Swap: Transactions via 8.3 Specified transfers and 8.4 Inter-RIR Transfers*

Approved the 2021 elections report

Approved the entry of ARIN into a lease agreement for equipment

Approved having ARIN Board, Advisory Council, and NRO NC members participate in Sexual Harassment Prevention training

Adopted the ARIN Elections process

Authorized Treasurer to approve future commitments

Accepted the 2021 Auditor's Report and 2021 audited financial statement

Adopted the 2021 Board Guidance Letter and Board Nominee Questionnaire.

Accepted ARIN's 2021 IRS Form 990 and 990T

Approved funding of recommended grants

Adopted a new version of the ARIN Registration Services Agreement (RSA)

Approved a Transfer Processing Fee

Approved ARIN Strategic Direction

Approved the ARIN 2023 budget

Adopted revised Policy Development Process (PDP)

Adopted revised ARIN Bylaws

SERVICE LEVEL REPORTS

ARIN reports on service level commitments and performance against those commitments for community-provided services.

FINANCIAL SERVICES DEPARTMENT

100%

Invoices sent for renewal IP allocations 45 days in advance of the beginning of the customer's anniversary month

99.18%

Customer support provided from 9:00 AM to 5:00 PM ET, Monday through Friday, excluding holidays

REGISTRATION SERVICES DEPARTMENT

100%

Customer support provided from 7:00 AM to 7:00 PM ET, Monday through Friday, excluding holidays

100%

Issue escalation services provided from 10:00 AM to 4:00 PM ET, Monday through Friday, excluding holidays

COMMUNICATIONS DEPARTMENT

100%

Customer support provided from 9:00 AM to 5:00 PM ET, Monday through Friday, excluding holidays

100%

ARIN's 2021 Annual Report published by the first Public Policy and Members Meeting of the year

100%

Meeting Reports published online within 10 business days of Public Policy and Members Meeting conclusion

100%

Two Public Policy and Members Meetings conducted throughout the year

100%

Annual elections conducted for the Board of Trustees, Advisory Council, and Number Resource Organization Number Council

ENGINEERING DEPARTMENT

100%

Auto reply for registration

100%

Webserver (http)

100%

DNS Reverse Master Zones

100%

Webserver (https)

100%

DNS provided by ARIN

100%

ARIN Online

100%

FTP data

100%

RPKI Repository service

100%

RESTful (Reg-RWS) Services

100%

RPKI provisioning

99.985%

Routing registry

99.985%

Whois

100%

RWhois

100%

Whois-RWS

100%

Web Whois

100%

Registration Data Access Protocol (RDAP)

FROM THE COO

RICHARD JIMMERSON

Chief Operating Officer

Key Takeaways

Released an updated Registration Services Agreement/Legacy Registration Services Agreement

Opened Premier Support Plan to all customers

I am pleased to present this report for the 2022 operating year. Despite the ongoing challenges posed by the COVID-19 pandemic, ARIN has achieved a successful year of operations, with sustained high levels of productivity in delivering vital Internet infrastructure services to our community. Our scheduled projects and improvements to registry services were executed in accordance with the goals and objectives set by ARIN's membership-elected Board of Trustees.

To adapt to the pandemic, our day-to-day operations at the beginning of the year were conducted with staff primarily working remotely. In the third quarter, we transitioned to a hybrid work environment, with staff splitting their time between the company office facility and their home offices. This approach was implemented seamlessly and was sustained through the end of the year.

We completed several service improvements, including opening our Premier Support Plan (PSP) to customers who are in an XL or smaller Registration Services Plan (RSP) for an annual fee. This white-glove concierge service option includes access to a dedicated account manager, priority ticket processing, a direct technical services liaison, and more.

In September, we released an updated Registration Services Agreement (RSA)/Legacy Registration Services Agreement (LRSA), which removed significant representations from Section 7 and renamed it from "No Property Rights" to "Acknowledged Rights to Included Number Resources." It is our hope that with these updates, more organizations will more easily be able to utilize the full suite of services ARIN offers.



Along with our service improvements, we also completed several updates to our software and technical services, such as support for the enforcement for two-factor authentication, increased RSA/LRSA status visibility in ARIN Online, and the release of the ARIN Publication Service for Delegated Resource Public Key Infrastructure (RPKI), among other necessary upgrades for customer support. Our dedicated team is passionate about our mission and is committed to providing the highest level of registry services to the Internet industry.

We would like to express our gratitude for the support that we have received from you throughout the year. We look forward to another successful year in 2023 and remain committed to serving the needs of the Internet community.

FROM THE CCO

JOHN SWEETING

Chief Customer Officer

Key Takeaways

Implemented modifications to ARIN membership structure in response to the 2022 Fee Schedule changes

Launched a subscription-based version of the Premier Support Plan

Released routing security enhancements, including a new RPKI option

Managed ARIN Elections process

Coordinated and advanced a new Policy Development Process

Throughout 2022, the Office of the Chief Customer Officer (CCO) remained fully committed to enhancing the quality and delivery of ARIN's services.

To meet ARIN's objectives of improving internal operations and prioritizing service improvement initiatives, we have continued to integrate and champion data-driven analysis to regularly conduct thorough process and service evaluations. We continually emphasize the importance of listening to and considering our customers' perspectives in all our improvement efforts, which has been a significant contributor to our progress.

In the past year, ARIN has provided substantial support and clear communications for the implementation of the 2022 Fee Schedule changes, which went into effect 1 January 2022. This involved administering several significant modifications to our membership structure that enabled more of our valued customers to take part in ARIN Elections and governance. We also took measures in 2022 to reinforce the security posture of our organization and the broader community we serve.

Key accomplishments ARIN achieved this past year include:

- Identifying and facilitating structural changes for ARIN membership.
- Successfully launching a paid version of the Premier Support Plan (PSP) for customers of all sizes, which includes quarterly roundtable discussions.
- Reinforcing our commitment to routing security through enhancements to ARIN's Resource Public Key Infrastructure (RPKI) services and developing the design

2022 Community Grant Program Recipient Projects

"Routing Security in the ARIN Region: Studying Trends, Facilitating Data Analysis and Promoting RPKI Adoption" by DNS Research Federation

"Refactor and Upgrade ntpd's Extension Field Handling" by Network Time Foundation, Inc.

"AS112 Project Website Improvements" by DNS-OARC

and requirements for deploying an updated Hosted RPKI user interface in late 2023.

- Sunsetting the ARIN-NONAUTH IRR data stream.
- Delivering a Repository and Publication Service for (Hybrid) RPKI customers.

Supporting the next generation of Internet leaders by operating two fully virtual ARIN Fellowship Programs, engaging 21 Fellows through educational sessions and mentorship by ARIN Advisory Council (AC) members.

We also managed the quarterly rights extinguishment process, presided over IPv4 Waiting List distributions, provided robust analysis of community fraud reports in partnership with both the internal ARIN legal team and external organizations as applicable, and coordinated participation in approximately 18 outreach events.

Additionally, ARIN continued to sponsor and administer

FROM THE CCO

JOHN SWEETING

Chief Customer Officer

the Community Grant Program, with three selected projects funded this past year for a total of \$44,500. ARIN is excited to support these innovative initiatives making significant contributions to the improvement of the overall Internet industry and Internet user environment in the ARIN region.

The annual ARIN Election process was successfully managed and, once again, voter quorum was exceeded. These accomplishments would not have been possible without the dedication and hard work of our staff and the support of our General Members.

2022 also saw the advancement and implementation of several policy initiatives through close collaboration with the AC and its working groups, which authored many of the Draft Policies discussed at the ARIN 49 and ARIN 50 Public Policy and Members Meetings. Of particular significance was the coordination and advancement of a revised Policy Development Process (PDP), which was reviewed by staff, legal, the community, and the Board of Trustees. This new PDP was adopted in December 2022 and will be fully implemented in 2023. ARIN remains dedicated to providing

reliable facilitation of Internet number resource policy development and region-wide discussions, and we are excited for what 2023 holds.

In late 2022, ARIN recognized the need for a new Customer Experience and Strategy (CXS) team to better serve customer needs and achieve service excellence. Reporting directly to the CCO and guided by a dedicated director, the team will devise and execute ARIN's customer service strategy, aiming to surpass customer expectations. The CXS team also supervises outreach events, handles community programs, and collaborates with external organizations, continually adapting ARIN's strategies and structure to match changing customer needs.

The teams in the Office of the CCO are excited about the future and dedicated to providing an outstanding customer experience. We remain committed to putting our members, customers, and community first when delivering ARIN services, ensuring that their needs remain our top priority. We appreciate your ongoing support and eagerly look forward to serving you in the coming years.

COMMUNITY
GRANT PROGRAM



ARIN FELLOWSHIP
PROGRAM



ARIN ELECTION
INFORMATION



FROM THE CFO

BRIAN KIRK

Chief Financial Officer

Key Takeaways

Completed a successful audit of 2021 financial statements; published Form 990

Updated accounting systems for fee harmonization

Added new payment options for annual invoices, including e-check

The ARIN Financial Services Department had a busy 2022. Our department is responsible for customer billings, collection of accounts, accounts payable, budgeting, general accounting, and financial reporting for ARIN. With more than 30,000 invoices prepared and more than 9,500 hours spent resolving billing issues, we diligently worked to continue making the financial experience for our customers a positive one.

We began the year with some general maintenance, receiving favorable results from the audit of our 2021 financial statements. We also made sure to update Form 990, which requires an annual filing by tax-exempt organizations.

One of the biggest projects we accomplished at the beginning of the year, however, was updating our accounting systems to reflect the transition of end users from annual per-resource maintenance fees to the Registration Services Plan (RSP) Fee Schedule – part of the ARIN fee schedule changes that took effect 1 January 2022. As part of our upgrades, we also were able to automate revenue recognition and added several new product types to our accounting systems.

In addition, we began the extensive work of upgrading our merchant service system to add new customer payment options such as e-check, which we hope will

allow our customers more flexibility when paying their annual invoices.

And, for the second year in a row, ARIN was happy to serve as the acting treasurer for the Number Resource Organization (NRO), which allowed us to continue helping the Internet ecosystem prosper.

Another important achievement last year was our completion of a financing agreement for necessary equipment. Previously, capital purchases would have a negative effect on ARIN's cash flows; this new agreement should reduce that effect. We also partnered with the ARIN Board of Trustees to develop a balanced budget for 2023.

Despite what has been described as a "brutal" year in the investment markets, ARIN was pleased that the decrease of less than 11% in ARIN's investment funds was smaller than overall market losses. ARIN continues to be in a strong financial position going into 2023, with available cash and investments totaling more than \$34 million.

In 2023, the Financial Services Department looks forward to partnering with various other departments at ARIN to implement financial system solutions aligned with the evolving products and services delivered to our customers. We are confident our department can expediently serve the needs of our community in the coming years.

FROM THE CTO

MARK KOSTERS

Chief Technology Officer

Key Takeaways

Deployed three major releases and 20 minor releases to ARIN Online

Created ARIN's Publication Service for Delegated RPKI

Updated ARIN Online dashboard to help customers take advantage of ARIN services

Reworked RPKI object lifetimes

Supported and improved two-factor authentication methods for ARIN Online

2022 was another productive year for the Engineering Department. Like the rest of ARIN, we continued to work in a hybrid environment, and we built up internal infrastructure for the rest of the company to do the same. Because of these efforts, we were able to keep to our schedule as planned.

We deployed three major releases and 20 minor releases of ARIN Online updates throughout 2022. We both supported an annual security audit as well as created and implemented processes as required for our successful System and Organization Controls (SOC) 2 Type 1 audit.

As part of the 26 February release, we rolled out ARIN's Publication Service for Delegated Resource Public Key Infrastructure (RPKI). This service is available to Delegated RPKI customers and allows ARIN to run the repository and reporting service for RPKI-covered resources without hosting the Certificates of Authority.

The February release also included a complete redesign of invoices to include updated payment information along with line items for all resource types and corresponding fees and values. The invoice summary page in ARIN Online was also updated to include line items to mirror the redesigned invoices.

As part of the 10 May release, we expanded opportunities for ARIN Online users to take advantage of ARIN services by increasing the visibility of resources' Registration Services Agreement (RSA)/Legacy Registration Services Agreement (LRSA) status to authorized users. We also included a callout in the ARIN Online dashboard, directly generating a search result for all resources not

under a signed RSA/LRSA with ARIN.

Also in the May release, we updated automated notifications to address ARIN's new membership structure implemented at the start of the year. General Members without a Voting Contact are now notified that votes cannot be cast without a Voting Contact on file and that, alternatively, General Membership can be removed and reverted to Service Membership should they not wish to participate in ARIN governance.

In the 1 August release, RPKI object lifetimes were reworked. Hosted Route Origin Authorizations (ROAs) now have a 90-day lifetime, with automatic renewal occurring within 10 days of scheduled expiration. Net search functions in ARIN Online were also improved, providing a faster response time.

Throughout the year, we supported and improved the new two-factor authentication (2FA) function for ARIN Online logins. We replaced 2FA "Emergency Reset Codes," (which would reset all 2FA settings when used) with 16 single-use "Recovery Codes" whose use preserves a user's 2FA settings. Users now also receive warnings encouraging them to generate new Recovery Codes when needed.

We also oversaw the technical aspects of the public-facing virtual services for the biannual Public Policy and Members Meetings, and completed the transition to a new voting vendor, eBallot, for the 2022 election cycle.

2023 promises to be another busy year for our team, but we are looking forward to the challenges ahead and to serving you as best as we can. Keep your feedback and ideas coming!

FROM THE CISO

CHRISTIAN JOHNSON

Chief Information Security Officer,
American Registry
for Internet Numbers

Key Takeaways

Established Risk and Cybersecurity Committee for the Board of Trustees

Formalized ARIN's security policies and procedures

Established internal information security training and phishing awareness program

Completed SOC 2 Type 1 audit for RPKI

2022 was a busy year at ARIN and our security program was no exception. ARIN's efforts to formalize our governance, risk, and compliance policies and procedures created a framework that pushed ARIN forward, motivating us to pursue goals that brought real benefits to the organization.

ARIN's marquee security achievement in 2022 was demonstrating System and Organization Controls (SOC) 2 Type 1 compliance for our Resource Public Key Infrastructure (RPKI) services. And yes, we're halfway down the road on our Type 2 certification as you read this. But SOC 2 certification is only one part of a larger compliance program, and we have more coming in 2023.

We worked closely with the Board of Trustees to establish ARIN's Risk and Cybersecurity Committee and develop new Board reporting to meet the organization's current and future needs.

ARIN also invested considerable effort in developing our internal policy documentation. While many security processes and controls already existed, developing policy documents was a valuable undertaking that spanned the organization and provided opportunities for reviewing practices to identify and fill gaps.

Information Security training is a fundamental element of any organization's security program, and ARIN implemented a structured training program tailored for both new hires and existing staff. Additionally, ARIN instituted regular phishing awareness exercises and is enhancing reporting and response capabilities.

We look forward to a productive and secure 2023 at ARIN.

ABOUT SECURITY
AT ARIN



FROM THE CHRO

ERIN ALLIGOOD

Chief Human Resources Officer

Key Takeaways

Employees shifted into a hybrid work environment in July 2022

All employees and volunteers received mandatory harassment prevention training

ARIN's Human Resources and Administration Department had another successful and productive year in 2022.

The department continued to focus on efforts related to COVID-19 for ARIN staff and our facility. We monitored office use time through our Limited Reopening Program, where employees could visit and work at the ARIN office under a voluntary program.

As noted in the 2021 Annual Report, ARIN conducted a workforce study with an outside vendor to determine our post-pandemic workforce plan. Employees also participated in a company-wide survey and provided input on their work preferences. From these two data points, ARIN gained valuable information that supported moving the company into a hybrid work environment. ARIN shifted into a hybrid work model in July 2022, and the ARIN office officially reopened for regular use. ARIN employees now work at the ARIN office some days during the work week and work from home on the others.

In 2022, the Human Resources and Administration Department also ensured that all ARIN employees and volunteers received mandatory harassment prevention training. This training is conducted annually, and there are plans to add annual diversity, equity, and inclusion training beginning in 2023.

We are pleased to report that ARIN continues to enjoy an outstanding employee tenure record. At over eight years of service, our current average employee tenure remains exceptional. We thank our employees for their ongoing dedication and service to the ARIN community and organization.

The Human Resources and Administration Department also grew in 2022 by onboarding additional Human Resources-focused staff, including a Human Resources Generalist and a Volunteer Support Specialist. And, after eight years of service in our department, Denise Alston, who previously served as ARIN's Receptionist, was promoted into the Engineering Department as a Junior Software Integration Analyst. We thank Denise for her outstanding service to the Human Resources and Administration Department and wish her luck in her new role.

After more than 24 years of service at ARIN, Cathy Clements, ARIN's Transfer Services Manager, retired in March 2022. Cathy had been with ARIN since its inception in 1997 and had served in various roles throughout the organization. We are sincerely thankful for Cathy's dedication and service to our community over the years and wish her well in her retirement.

Our team looks forward to a successful and productive year in 2023.

REGISTRATION SERVICES

LISA LIEDEL

Director of
Registration Services

Key Takeaways

Addressed customer suggestions and requests submitted via the ARIN Feedback program

Enhanced the accuracy of Whois by removing over 250,000 stale records

In 2022, the ARIN Registration Services Department (RSD) focused on improving services by addressing customer suggestions and requests for features submitted through the ARIN Feedback program.

The team's morale improved with the return to the company office, enabling real-time, face-to-face collaboration and quicker response to customer needs. ARIN made its Premier Support Plan available to all customers as a paid add-on service and enhanced the accuracy of its Whois database by removing more than 250,000 stale customer records.

Finally, RSD continued to provide support via phone, chat, and tickets submitted via ARIN Online for:

- Nearly **2,100** chats
- Nearly **5,800** phone calls
- **738** requests added to the IPv4 Waiting List
- **1,459** requests for Autonomous System Numbers
- **961** requests for IPv6 addresses
- **2,530** requests for Transfer (NRPM 8.2/8.3/8.4)
- More than **15,000** other ticketed requests

As always, the Registration Services Department enjoyed working with our customers in 2022, and we all look forward to working with you in the coming year.



GOVERNMENT AFFAIRS

EINAR BOHLIN

Vice President of Government Affairs

Key Takeaways

Participated in a number of global Internet industry events both virtually and in-person

Provided multiple government officials with information about the Internet ecosystem

Hosted the ARIN Caribbean Forum in the Bahamas in September

The Government Affairs Department (GAD) continued to perform its mission in 2022 by developing and overseeing outreach and support to the law enforcement community, conducting targeted outreach to cultivate and maintain relationships with governments and Internet industry groups in the Caribbean part of the ARIN region, and continuing external relationships with governments and key intergovernmental organizations.

The team resumed attending meetings in person, and it was wonderful to reconnect with colleagues and friends face-to-face. That said, we appreciate how fortunate we are to be able to attend meetings virtually and recognize that is not the case worldwide. In fact, about half of the world is still unconnected to the Internet, and connecting the unconnected served as the foundation of Doreen Bogdan-Martin's campaign for Secretary General of the International Telecommunications Union (ITU). She won the election late last year and took office 1 January 2023. Tomas Lamanuskas from Lithuania won the election for Deputy Secretary-General. We are happy to have an experienced and knowledgeable colleague and friend leading the ITU.

At the ITU, GAD participated in the World Telecommunications Standardization Assembly (WTSa), the World Telecommunications Development Conference (WTDC), and the 2022 Plenipotentiary Conference (PP-22). Staff also attended the Organization of American States' Inter-American Telecommunication Commission (OAS/CITEL) meetings both in person and virtually in preparation for PP-22. Normally these meetings are staggered and held every four years, but, due to the pandemic and

postponements, they all ended up taking place in 2022. This unprecedented scenario meant that preparatory meetings and actual events occurred practically nonstop throughout the year. Nevertheless, we prevailed. As requested by colleagues from governments in our region, we provided them with information about the Regional Internet Registry (RIR) ecosystem and the Internet in general to aid in their decision making on a range of topics, including telecom/ICT human and infrastructure capacity building, connecting the unconnected, and promotion of IPv6. The GAD team's efforts helped support constructive changes to proposed resolutions or, in some cases, advocate for no changes when those proposed would have been detrimental to either the RIR system or the ARIN community.

In the Caribbean, Bevil Wooding, ARIN's Director of Caribbean Affairs, organized several trainings and webinars about Internet and network infrastructure, security, and access policy. The ARIN Caribbean Forum held in the Bahamas in September represented ARIN's first return to hosting events in the Caribbean since 2019. Bevil also worked to help prepare governments in the region to participate in the ITU conferences, including WTDC and PP-22, more efficiently and successfully. At PP-22, ARIN built upon the strengthened collaboration with the Caribbean Telecommunications Union (CTU) initiated at the WTDC in Kigali, Rwanda, in June. We were pleased to see the highest-ever level of Caribbean attendance at a Plenipotentiary meeting, and the CTU Secretariat repeatedly hailed ARIN for its support – particularly during the first week of election campaigning. We also

GOVERNMENT AFFAIRS

EINAR BOHLIN

*Vice President of
Government Affairs*

took advantage of the opportunity for one-on-one discussions with government representatives from across the Caribbean.

The GAD team also participated in a variety of other meetings, conferences, and webinars with our RIR colleagues, the Internet Corporation for Assigned Names and Numbers (ICANN), the Internet Governance Forum, regional, national, and international law enforcement and public safety agencies, the Internet Engineering Task Force (IETF), and many other industry partners whose work intersects our own. Leslie Nobile, ARIN's Senior Director of Trust and Public Safety, continued to work with the Messaging, Malware and Mobile Anti-Abuse Working Group (M3AAWG). As part of ARIN's effort to engage with the M3AAWG community, Leslie is serving as a co-chair of its Names & Numbers Committee, a group focused on DNS abuse, cybersecurity, fraud, data accuracy and

access, and Internet governance.

In March 2022, the GAD team welcomed a new member – Nate Davis. While new to our team, Nate is not new to ARIN, having previously served as its Chief Operating Officer until his departure in 2018. We are extremely fortunate to have Nate in the role of Senior Government Affairs Analyst.

As I wrap up my first full year as Vice President of the ARIN Government Affairs Department, I'm extremely grateful for the support of this team and proud to be working with Bevil, Leslie, and Nate – as well as every other person at ARIN. Many thanks to all of you!

In closing, the GAD team's efforts in 2022 demonstrate that ARIN is staying alert and can forecast (and often help navigate) the effects of new international Internet public policies and regulations that could impact its work in support of the operation and growth of the Internet.

COMMUNICATIONS

HOLLIS KARA

Director of Communications

Key Takeaways

Hosted multiple outreach events, including four in-person ARIN on the Road workshops

Successfully held the ARIN 49 and ARIN 50 Public Policy and Members Meetings (attendance numbers consistent with pre-pandemic meetings)

Conducted six consultations to our community on governance, election processes, and security

Created two on-demand webinars focused on RPKI training

Celebrated ARIN's 25th anniversary

If the Communications Department had a theme for 2022, it was “pivot.” The landscape has been shifting for the past several years, and 2022 proved to be just as full of unexpected opportunities and challenges. The department experienced several staffing changes and a reorganization on top of an agenda jam-packed with projects, programs, and deliverables. It was a year of growth, and, as we set the course for 2023, the team is well-positioned to meet the needs of the ARIN community.

As our focus on customer experience continued to develop, Community Programs moved out of the Communications Department and into the Office of the Chief Customer Officer. Programs like ARIN Optimized, Fellowships, and Grants continued to be collaborative projects, and Communications team members were key contributors to their delivery.

ARIN also hosted four in-person ARIN on the Road events using a refreshed format that was much more modular to meet the needs of participants. This allowed us to dive deeper into topics like Resource Public Key Infrastructure (RPKI), IPv6, and the state of the IPv4 transfer market.

The team also refreshed our popular on-demand webinars, including “Enhance Your Routing Security using ARIN’s Hosted RPKI” and “Delegated, Hybrid, and

the API: Beyond Hosted RPKI with ARIN.”

The organization successfully hosted the ARIN 49 and ARIN 50 Public Policy and Members Meetings, with attendance and participation numbers consistent with our pre-pandemic in-person meetings. We built on the success of our first fully hybrid meeting, ARIN 48, and saw great enthusiasm from participants for this new meeting model. It was wonderful to reconnect with so many community members and welcome newcomers to ARIN events both face-to-face and virtually in 2022.

It was also an active year for the ARIN Consultation and Suggestion Process, which resulted in six consultations and 25 suggestions. The consultations generated multiple reports back to the Board of Trustees for improvements to our election processes, governance, and security. We appreciate the feedback from our community on how ARIN can better serve our customers.

The year closed with the celebration of ARIN's 25th anniversary across our social media channels and the ARIN Blog, sharing our thanks to everyone who has contributed to our success over the years. As always, I am grateful for the opportunity to work with such a talented group of professionals to further ARIN's mission.

ON-DEMAND
WEBINARS



ARIN 49
MEETING REPORT



ARIN 50
MEETING REPORT



OUTREACH EVENTS IN 2022

EVENTS HOSTED BY ARIN

ARIN 49

24-27 April, Nashville, TN

Fellowship Program Summit (Virtual)

28 June

ARIN 50

20-21 October, Los Angeles, CA

ARIN on the Road

29 March, Phoenix, AZ; 1 September, Savannah, GA; 9 November, Wichita, KS; 14 December, Reston, VA

ARIN Optimized (Virtual)

(by invitation only)

8 March, 22 June, 14 December

ARIN Premier Support Plan Roundtable (Virtual)

(by invitation only)

8 March, 21 June, 20 September, 13 December

ARIN Webinars (Virtual)

Delegated, Hybrid, and the API – Beyond Hosted RPKI at ARIN
25 May, 1 June, 15 September

Enhance Your Routing Security using ARIN Hosted RPKI
7 September

PTC'22

16-19 January, Honolulu, HI

NANOG 84

14-16 February, Austin, TX

FISPA Live

16-18 February, New Orleans, LA

M3AAWG 54

21-24 February, San Francisco, CA

APNIC 53 with APRICOT (Virtual)

21 February-3 March 2022

DIPLO Webinar (Virtual)

"International Digital Standards: Stepping Up the Engagement of Stakeholders from the ARIN Region"

22 February

ITU WTSA

1-9 March, Geneva, Switzerland

WISPAMERICA

14-17 March, New Orleans, LA

DIPLO Webinar (Virtual)

"Towards a More Diverse International Standardisation Landscape – Motivations and Actions for Stakeholders in the ARIN Region"

15 March

ITU 2022 Council Session

21-31 March, Geneva, Switzerland

CanWISP 2022

28-30 March, Gatineau-Ottawa, Québec, Canada

CITEL PCC.I (Virtual)

4-8 April

LACNIC 37

2-6 May, Cali, Columbia

RIPE 84

16-20 May, Berlin, Germany

ARIN/LACNIC/CTU Caribbean Internet Public Policy Forum (Virtual)

26 May and 2 June

ITU WTDC

6-16 June, Kigali, Rwanda

NANOG 85

6-8 June, Montréal, Québec, Canada

NTCA SRC Live!

8-10 June, Las Vegas, NV

IPXO Webinar (Virtual)

"RPKI: Security, Benefits & RPKI Adoption"
21 June

OUTREACH EVENTS IN 2022

GSA/ATARC IPv6 Summit (Virtual)

23 June

CITEL WGPP

11-15 July, Washington, DC

CANTO Annual Conference & Trade Exhibition

17-20 July, Miami, FL

IGF-USA 2022

21 July, Washington, DC

Midwest Peering Summit

26 July, Des Moines, IA

Caribbean Internet Governance Forum, Caribbean Youth IGF, and Small Island Developing States IGF (Virtual)

24-26 August

CTU ICT Week 2022

5-9 September, The Bahamas

APNIC 54

8-15 September, Singapore

ICANN75 - 24th Annual General Meeting

17-22 September, Kuala Lumpur, Malaysia

NANOG U 2022 Tour

19-20 September, Montgomery, AL

ITU Plenipotentiary Conference 2022

24 September - 14 October,
Bucharest, Romania

WISPAPALOOZA 2022

3-6 October, Las Vegas, NV

LACNIC 38

3-7 October, Santa Cruz, Bolivia

CHI-NOG 10

6 October, Chicago, IL

M3AAWG 56th General Meeting

10-13 October, Brooklyn, NY

Ninja-IX Fall 2022 Meeting

14 October, Phoenix, AZ

NANOG 86

17-19 October, Hollywood, CA

Indigenous Connectivity Summit 2022

24-28 October, Winnipeg, Manitoba, Canada

RIPE 85

24-28 October, Belgrade, Serbia

North American School of Internet Governance

2-4 November, San Juan, Puerto Rico

Internet Governance Forum 2022

28 November - 2 December
Addis Ababa, Ethiopia

2022 Internet2 Technology Exchange

5-9 December, Denver, CO

ITU Telecommunication Standardization Advisory Group

12-16 December
Geneva, Switzerland

CALENDAR
OF EVENTS



POLICY DEVELOPMENT

The ARIN community engages in a Policy Development Process (PDP) to define how ARIN manages and administers Internet number resources, such as IP addresses and Autonomous System Numbers. Community decisions are recorded as policies and published in the Number Resource Policy Manual (NRPM).

In 2022, 12 proposals were submitted to policy@arin.net. Three were classified as editorial updates. One was withdrawn by the author. The remaining eight were advanced to Draft Policy status and discussed by the community on the Public Policy Mailing List.

Of those eight, two were abandoned by the Advisory Council, and two were promoted to Recommended Draft Policies as a result of community discussions. The remaining four Draft Policies are under discussion as of 31 December 2022.

INTERNET NUMBER RESOURCE POLICY INFO

Learn more about current draft policies and view the proposal archive:

DRAFT POLICIES AND PROPOSALS



Subscribe to the Public Policy Mailing List (PPML) and discuss ideas for new policies, pending proposals, and draft policies:

PUBLIC POLICY MAILING LIST



Submit a proposal to create a new policy or to revise current policy. Read and follow the instructions in the PDP and submit your proposal:

SUBMIT A POLICY PROPOSAL



PUBLIC POLICY DISCUSSIONS

One feature of the PDP is the opportunity to discuss policy proposals and changes at ARIN's biannual Public Policy and Members Meetings (PPMMs). ARIN held two hybrid PPMMs – ARIN 49 in Nashville, TN, and ARIN 50 in Los Angeles, CA.

2022 MEETING REPORTS



ADVISORY COUNCIL

2022 ADVISORY COUNCIL MEMBERS

Andrew Dul

Kat Hunter
(Vice Chair)

Brian Jones

Anita Nikolich

Amy Potter

Joe Provo

Alyssa Quinn

Kerrie Richards

Leif Sawyer
(Chair)

Robert Seastrom

Chris Tacit

Alicia Trotman

Matthew Wilder

Alison Wood

Chris Woodfield

The Advisory Council (AC) advises the Board of Trustees on Internet number resource policy and related matters and forwards Recommended Draft Policies to the Board for ratification, in adherence with the Policy Development Process (PDP).

In 2022, the AC consisted of 15 elected members and ARIN's President and CEO, John Curran, who serves as an ex-officio member and a liaison between the AC and the Board. Each year, the AC holds three in-person meetings and approximately nine teleconferences. In 2022, the AC met in person three times and met via teleconference for the remainder of their scheduled meetings.

2022 AC MEETING
MINUTES



2022 ELECTIONS RESULTS

In October 2022, Gerry George, Kendrick Knowles, and Gus Reese were elected and incumbents Alison Wood and Brian Jones were reelected to the Advisory Council for three-year terms beginning 1 January 2023. In November 2022, the ARIN Advisory Council voted

to appoint Douglas Camin to the Advisory Council for a one-year term beginning 1 January 2023 to fill the seat vacated by Robert Seastrom, who was elected to the ARIN Board of Trustees.

ARIN ELECTIONS
GUIDELINES



GLOBAL POLICY & THE NRO

The Number Resource Organization (NRO) is a coordinating body for the five Regional Internet Registries (RIRs): AFRINIC, APNIC, ARIN, LACNIC, and RIPE NCC.

The NRO Number Council (NRO NC) fulfills the role of the Internet Corporation of Assigned Names and Numbers (ICANN) Address Supporting Organization Address Council (ASO AC), providing advice to the Board of ICANN on global Internet number resource policy, in conjunction with the RIRs.

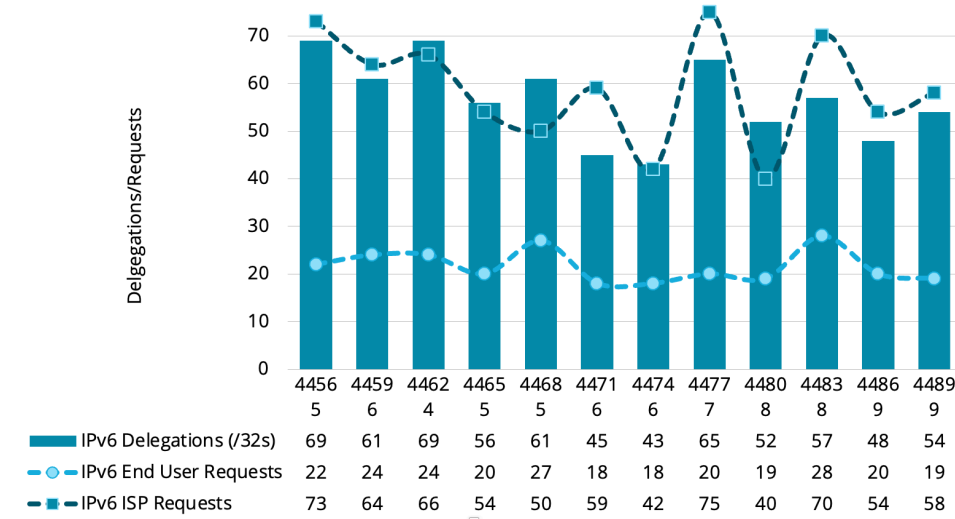
There are three NRO NC representatives from each RIR region. The members from the ARIN region for 2022, who were elected as part of the ARIN Election process, were Kevin Blumberg, Martin Hannigan, and Christopher Quesada. In 2022, Martin Hannigan retired from his seat, and Nick Nugent was elected to fill the open seat.

We thank all of them for their service and commitment to the global Internet community.

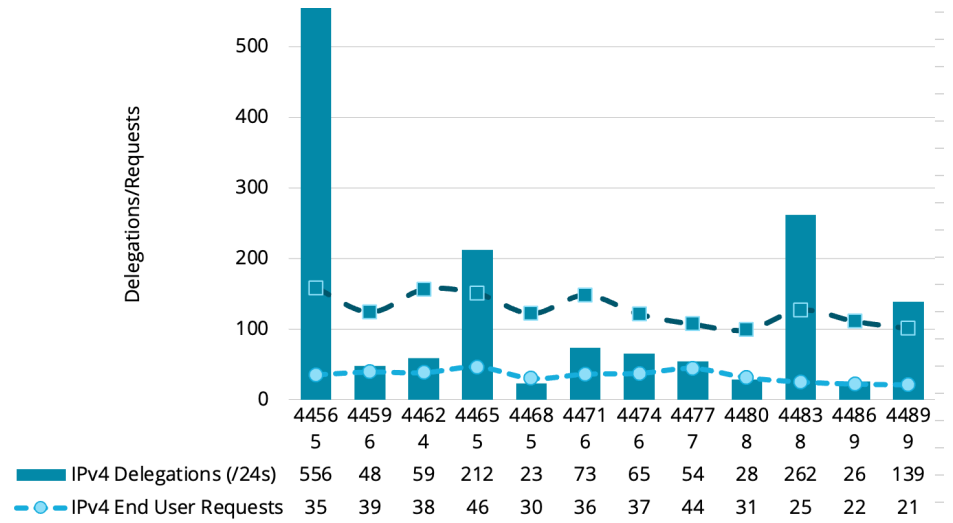


STATISTICS

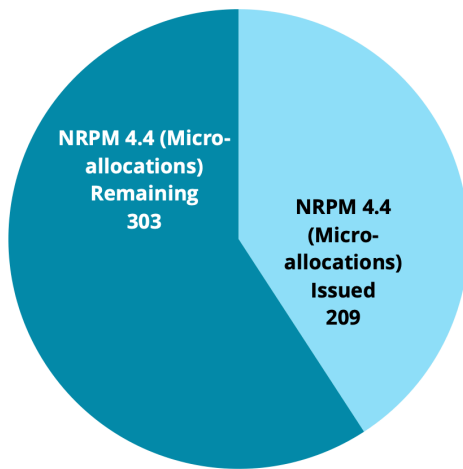
IPv6 Address Space Issued and Requested



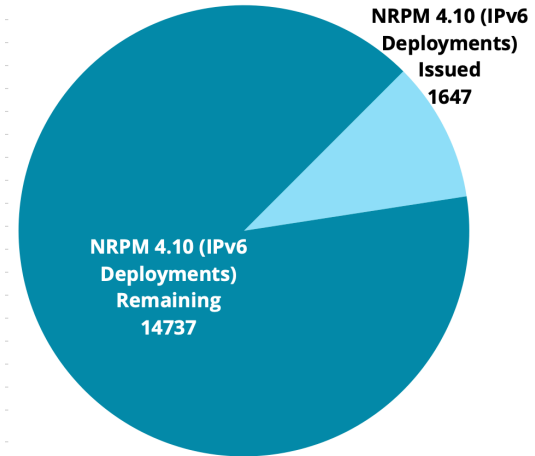
IPv4 Address Space Issued and Requested



IPv4 Reserved Pool Status – NRPM 4.4 (Micro-allocations)

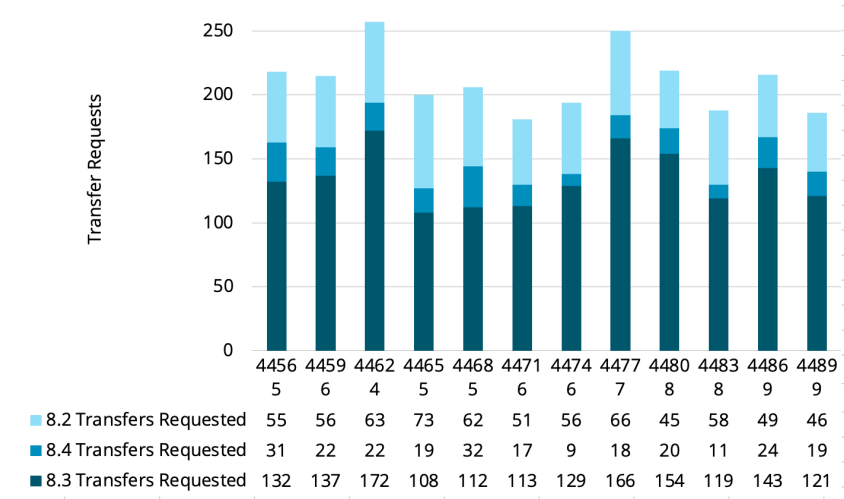


IPv4 Reserved Pool Status – NRPM 4.10 (IPv6 Deployments)

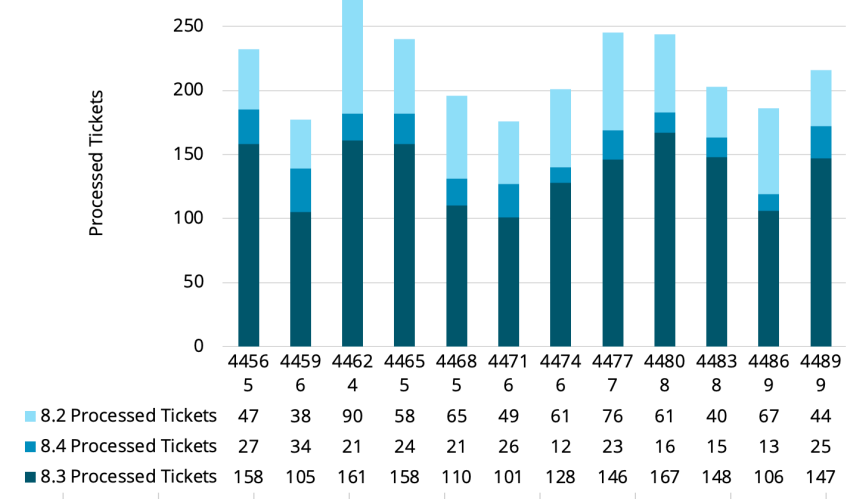


STATISTICS

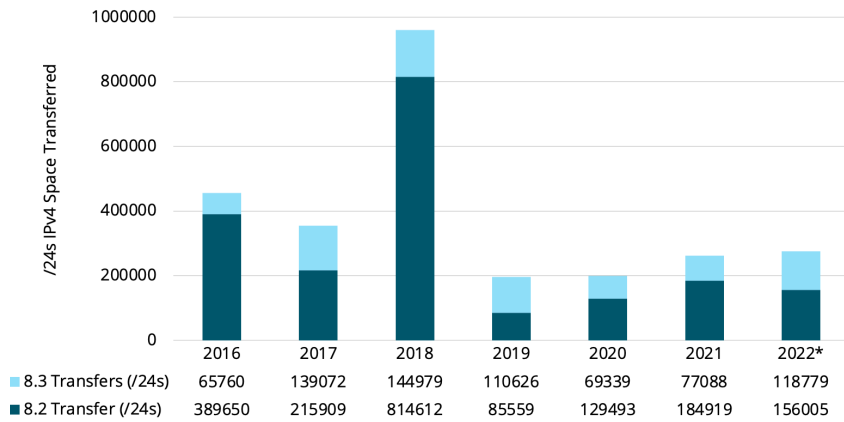
Transfer Requests by Type



Transfer Tickets Processed by Type

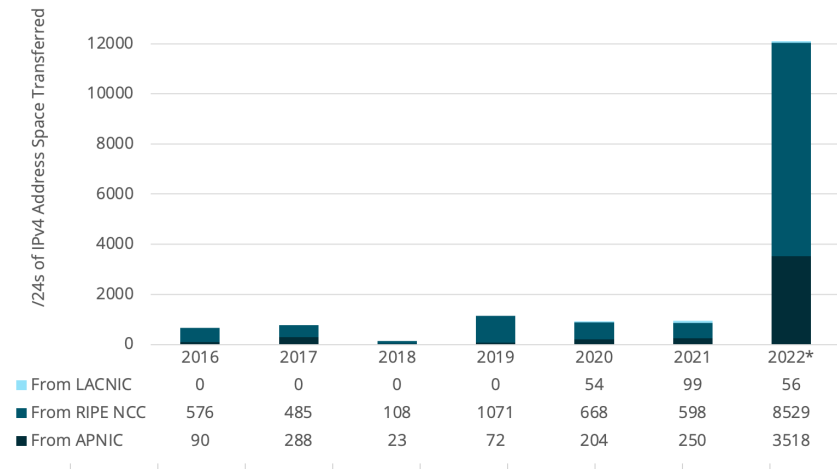


In-Region IPv4 Transfers (by year and /24s of IPv4 transferred)

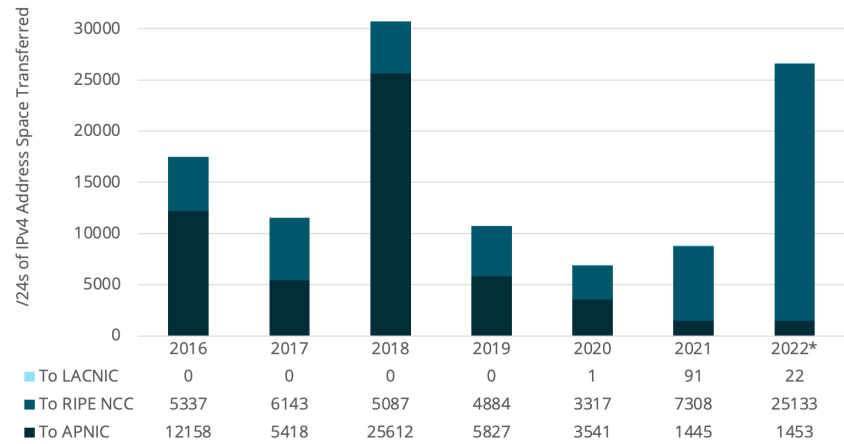


STATISTICS

Inter-RIR (8.4) Transfers to the ARIN region (by year)



Inter-RIR (8.4) Transfers from the ARIN region (by year)



AUDITOR'S REPORT

ARIN operates as a nonprofit 501(c)(6). Federal guidelines do not require nonprofit organizations to undergo an annual financial audit. However, the ARIN Board of Trustees believes a financial audit is the best tool for oversight of financial management.

ARIN has an annual financial audit performed by an independent, outside firm to fulfill the Board's fiduciary responsibility to the community. The financial statements for the year ending 31 December 2022 will be made available for community review on ARIN's public website following the conclusion of our audit.

