



2019 ANNUAL REPORT

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ABOUT ARIN

ARIN provides services related to the technical coordination and management of Internet number resources in accordance with its mission statement:

ARIN, 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.

Services are grouped into three areas:

Registration Services

ARIN's primary function is the registration of IP addresses and ASNs, collectively referred to as Internet number resources. These resources are delegated in a way to ensure global uniqueness. ARIN also operates directory services which allow the public to determine to whom those number resources are registered. This work includes:

- The allocation, assignment, and transfer of all Internet number resources
- Help desk operations over phone and via ARIN Online
- Reverse delegation registration, maintenance of ARIN's Whois service, the WhoWas historical registration database, and an Internet Routing Registry service within the ARIN service region

Technical Services

ARIN develops, implements, and supports both internal systems and community services like:

- Customer web portal (ARIN Online)
- Security services such as Cryptographic Authentication, DNS Security (DNSSEC), and Resource Public Key Infrastructure (RPKI)
- RESTful Provisioning (Reg-RWS)
- Whois and Registration Data Access Protocol (RDAP) directory services
- Operational Test & Evaluation (OT&E) Environment

Organization Services

ARIN coordinates meaningful interaction between members, stakeholders, and the organization including:

- Facilitation of the Policy Development Process (PDP) to include Public Policy and Members Meetings, maintaining email lists, and publishing documents such as the Number Resource Policy Manual (NRPM)
- Education through web content, outreach, and training
- Annual elections for the ARIN Board of Trustees, ARIN Advisory Council, and Number Resource Organization Number Council
- Community engagement via the ARIN Consultation and Suggestion Process (ACSP), website feedback button, and periodic customer satisfaction surveys



ARIN REGION



ARIN serves the following economies: Anguilla, Antarctica, Antigua and Barbuda, Bahamas, Barbados, Bermuda, Bouvet Island, Canada, Cayman Islands, Dominica, Grenada, Guadeloupe, Heard and McDonald Islands, Jamaica, Martinique, Montserrat, Saint Barthelemy, Saint Kitts and Nevis, Saint Lucia, St. Pierre and Miquelon, Saint Vincent and the Grenadines, St. Martin, St. Helena, Turks and Caicos Islands, Virgin Islands (British), United States (including Puerto Rico, Virgin Islands (US), and Minor Outlying Islands).

PRESIDENT'S LETTER



John Curran
President & CEO
ARIN

ARIN had a very strong performance in 2019, and I'd like to briefly review some of the more significant accomplishments.

Most importantly, we proudly launched our new and improved ARIN website in March 2019. The new website boasts a more modern, responsive appearance, more intuitive navigation, and more robust profile and security settings within ARIN Online. We're extremely proud of our final product and we were pleased to see that the community responded positively to the new design. Your feedback guided us many times along the way to the new website, so we have you to thank.

A key initiative was to create a whole range of new training opportunities in 2019, which was something we'd been hearing that the community wanted for a long time. Staff developed and conducted online and in-person training on IPv6 and ARIN's Policy Development Process, as well as developed a series of new educational videos on how to use ARIN Online that reflect the new and improved user interface that was launched in March.

In an effort to further our goal of spreading IPv6 awareness and adoption, we focused more than ever before on IPv6 training. In November, we released a new educational video titled "Getting Started with IPv6" that provides a high-level overview of IPv6. We also held several sessions of a follow-up webinar designed to help everyone better understand IPv6 address planning, block sizes, and how to plan for growth. These webinars were well-received and exceeded our registration capacity, so much so that we added an additional, third session. This speaks volumes to just how important IPv6 is to our community, and how much continuing outreach we need to do to help organizations Get6.

We were also proud to roll out improvements to our infrastructure in 2019 that now allow us to deploy software updates without outages. Prepare to see more up-time for ARIN Online and fewer disruptive outages. We know our customers' time is valuable and we want to align ARIN Online's functionality with your organization's needs as much as possible.

These projects were all undertaken while we were also carrying out our usual, everyday duties: administering IP addresses and ASNs, transferring resources, holding numerous outreach events, maintaining ARIN's services, and facilitating the Policy Development Process, just to name a few. This has been no small feat, and it is a testament to just how much the ARIN staff is capable of when we all work together to better our organization and serve our customers.

I would be remiss not to mention just how much the ARIN staff does to ensure we are executing on our plan each year. I thank the entire ARIN staff for another tremendous year and their unending dedication to our mission. Specifically, I would like to take the opportunity give my sincerest thanks to our long-time staff member Susan Hamlin, who entered retirement in 2019 after 20 years of service.

I know I speak for myself and the entire organization when I say I'm excited for both the opportunities and challenges that lie ahead – 2020 has been quite challenging so far, and our community has provided wonderful support to the organization in these dynamic times. As always, I would like to thank you to all of the members of our community who tirelessly lend their support, involvement, and voices to making ARIN a better, stronger organization.

BOARD OF TRUSTEES REPORT

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

<https://www.arin.net/participate/policy/pdp/>

The Board of Trustees consists of seven members. Six members are elected by ARIN's membership, and the President and CEO of ARIN serves as the seventh member. An additional voting member (potentially bringing the Board to eight voting seats) may be appointed by the Board at its discretion (for a term not to exceed one year) to provide diversity to the Board's membership.

Each year, the Board holds approximately four in-person meetings and between five and 10 teleconferences. View meeting minutes at <https://www.arin.net/about/welcome/board/meetings/>



2019 MEMBERS

Dan Alexander
Paul Andersen, Chair
Nancy Carter, Treasurer
John Curran, President and CEO
Regenie Fraser
Patrick Gilmore
Peter Harrison
Bill Sandiford, Vice Chair

Board Secretary

Stephen M. Ryan, General Counsel

2019 ELECTION RESULTS

In November 2019, Bill Sandiford was re-elected and Catherine Middleton was elected to the ARIN Board of Trustees. Each will serve a three-year term commencing 1 January 2020. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/procedures/>

ARIN would like to recognize outgoing Board members Patrick Gilmore and Regenie Fraser. Patrick served on the ARIN Board of Trustees for three years and Regenie served for one year as a Board-appointed Trustee. ARIN sincerely thanks both of them for their dedication and service.

CHAIRMAN'S LETTER



Paul Andersen, P. Eng
Chairman
ARIN Board of Trustees

As I write this, the world is dealing with the coronavirus pandemic and 2019 seems long past, despite it only being five months ago. I would like to take a brief moment to highlight some of our key activities in 2019, as the ARIN Board of Trustees worked hard throughout the year to strengthen ARIN's engagement with the community through a number of important initiatives.

In May, we introduced our new ARIN Community Grant Program. This program provides financial grants to support projects that advance ARIN's mission and benefit the Internet community within the ARIN region. As a result of this program, we awarded financial grants last year totaling \$44,500 to four deserving organizations. We are excited to continue this initiative and help advance the Internet in a new way.

In order to meet a long-time goal of widening the pool of community members who are prepared to take on elected roles, we launched a Leadership Development Program in advance of opening the call for nominees for the 2019 elections. This webinar series was created in an effort to develop a strong class of future leaders from diverse backgrounds and geographic areas. The series encourages and explains how to continually engage with ARIN and is ideal for all rising leaders in our community. The Board and I had envisioned a program such as this for a long time and it was so rewarding to see it finally come to fruition in 2019. By the way, this is a continuing program, so be on the lookout for new webinar dates in 2020 as we announce them.

We also updated ARIN's Three-Year Strategic Direction to improve its readability and relevance to the community. The Board continues to emphasize the need for clear, measurable objectives for the organization, and the updated Strategic Direction will help us towards this goal. I would recommend that you take a moment to review it on our website:

https://www.arin.net/vault/about_us/corp_docs/stratplan-2020-2022.pdf

This past year, I was impressed by the tireless dedication of our many volunteers who serve the organization and the community, both in a formal and informal capacity. ARIN has been successful due in large part to these dedicated folks and their efforts. On behalf of the Board, we thank you for your service and hard work.

To ARIN's members, thank you for placing your trust in the ARIN Board and myself for another year. I look forward to growing, learning, and working with each of you in this challenging time, and may you all have a safe and productive year.

BOARD OF TRUSTEES ACTIONS

2019 HIGHLIGHTS

(not an exhaustive list)

- 16 January 2019 Elected Officers:
 - Paul Andersen, Chairman
 - Bill Sandiford, Vice Chair
 - Nancy Carter, Treasurer
 - Stephen M. Ryan, General Counsel, Board Secretary
- Adopted ARIN Board Standing Rules
- Authorized the Treasurer to approve Future Commitments
- Appointed ARIN Compensation Committee members Paul Andersen (Committee Chair), Dan Alexander, and Nancy Carter
- Accepted the ARIN Finance Committee Charter and appointed members Nancy Carter (Committee Chair), Paul Andersen, Peter Harrison, and Bill Sandiford
- Accepted the ARIN Audit Committee Charter and appointed members Patrick Gilmore (Committee Chair), Dan Alexander, and Regenie Fraser
- Appointed ARIN Mailing List Acceptable Use Policy (AUP) Committee members Peter Harrison (Committee Chair), Amy Potter, and Stephen Middleton
- Appointed Paul Andersen to serve as the 2019 ARIN Board Observer to the NRO EC
- Accepted the 2019 Fellowship Selection Committee Charter and appointed Bill Sandiford (Committee Chair), Regenie Fraser, Brian Jones, and Bill Woodcock
- Suspended issuance of number resources per NRPM section 4.1.8.2. (Fulfilling unmet needs), and referred NRPM section 4.1.8 to the ARIN Advisory Council for their recommendation (January 2019)
- Adopted the ARIN Community Grant Program
- Adopted revisions to the ARIN Board Policies
- Adopted changes to the ARIN Election Process and the 2019 Nominations Committee Charter
- Appointed Board members Nancy Carter and Dan Alexander to serve on the 2019 Nomination Committee (NomCom), with Dan Alexander to serve as Chair
- Appointed Paul Andersen as Board Election Officer for the 2019 ARIN Elections
- Reviewed and accepted ARIN IRS Form 990 for filing with the Internal Revenue Service
- Accepted the 2018 Financial Audit Report
- Adopted Board Travel Policy
- Approved creation of ARIN Leadership Development Program
- Approved addition of Chief Financial Officer (CFO) position and the start of the search and hiring process
- Adopted Recommended Draft Policy ARIN-2017-12: POC Notification and Validation Upon Reassignment or Reallocation
- Adopted Recommended Draft Policy ARIN-2018-2: Clarification to ISP Initial Allocation
- Adopted Recommended Draft Policy ARIN-2018-5: Disallow Third-Party Organization Record Creation
- Adopted editorial changes to the Number Resource Policy Manual (NRPM) to remove IPv4 reference in NRPM Section 6.10.1
- Accepted the ARIN Advisory Council's recommendation to replace the Number Resource Policy Manual Section 4.1.8, as amended; and, reinstate the full operation of the Number Resource Policy Manual Sections 4.1.8, 4.1.8.1, and 4.1.8.2 immediately (June 2019)
- Discharged the 2019 Fellowship Selection Committee, noting the existence of the new staff-facilitated Fellowship Program (June 2019)
- Accepted the Grant Selection Committee Report
- Confirmed the results of the ARIN 2019 Elections and reviewed the final report
- Confirmed the appointment of Anita Nikolich to serve the one year remaining of David Farmer's Advisory Council term in light of his resignation, effective 31 December 2019
- Approved the 2020-2021 ARIN Budget
- Reviewed Board committee year-end reports

FROM THE CHIEF OPERATING OFFICER



Richard Jimmerson

While carrying out day-to-day duties, ARIN staff simultaneously homed in on the various activities and deliverables outlined in the Board-approved 2019 ARIN Strategic Plan while keeping in lockstep with ARIN's mission, operating goals, and financial goals.

We completed many projects on behalf of the community in 2019. I would like to specifically highlight the completion of a 1.5 year-long website redesign and user interface overhaul of ARIN Online. These changes brought significant improvements to the "front page" of our service offering to ARIN customers and was redesigned using direct feedback from the ARIN community. More information about other service and software improvements in 2019 can be found at:

<https://www.arin.net/reference/materials/software/>

We also completed final actions on several suggestions from the community in 2019:

- 2016.2: Minor UI improvements to ARIN Online
- 2016.3: Provide Web UI for RDAP
- 2011.21: ARIN Online User Interface
- 2018.15: Add "Routing" and "DNS" Points of Contact
- 2019.3: Add Routing & DNS POCs to ARIN Online
- 2019.11: ROA Search Functionality
- 2013.29: Improve ARIN Online Form Time-out Behavior
- 2018.14: Support RRDp for RPKI Publication

More information about ARIN's Consultation and Suggestion Process (ACSP) is available at:

<https://www.arin.net/acsp>

Also an important highlight for 2019, we made positive changes to the structure of the staff organization. We added the position of CFO to the organization and reorganized oversight of the ARIN customer experience through the creation of the Chief Customer Officer (CCO) position. The CCO oversees both the Registration Services department and additional customer experience staff inside the organization. These and other changes to the ARIN leadership structure are intended to strengthen our operations and our focus on the ARIN customer.

We look forward to continuing our service to the community and executing on the ARIN Strategic Plan in 2020.

SERVICE LEVEL REPORT

This report contains stated service level commitments and associated performance for community-provided services.

FINANCIAL SERVICES

Provide Customer Support from 9:00 AM to 5:00 PM Eastern Time, Monday through Friday, excluding holidays



98%

Respond to phone and email messages from ARIN customers within two business days



97%

BILLING SCHEDULE COMMITMENT:

Send invoices for new registrations within three business days following the approval announcement sent by Registration Services



98%

Send invoices for renewal IP allocations 45 days in advance of the beginning of the anniversary month



100%

Send invoices for maintenance 30 days prior to the beginning of the anniversary month



100%

SERVICE LEVEL REPORT

COMMUNICATIONS

Provide Customer Support from 9:00 AM to 5:00 PM Eastern Time, Monday through Friday, excluding holidays



100%

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



100%

Conduct two Public Policy and Members Meetings each year



100%

Publish meeting minutes and presentations online within seven business days of meeting conclusion



100%

Conduct annual elections for the ARIN Board of Trustees, ARIN Advisory Council, and the Number Resource Organization Number Council (NRO NC)



100%

SERVICE LEVEL REPORT

REGISTRATION SERVICES

Provide Customer Support from 7:00 AM to 7:00 PM Eastern Time, Monday through Friday, excluding holidays



99.9%

Respond to all email within two business days at the latest, with the intended goal being a same day response



99.8%

Provide issue escalation services from 10:00 AM to 4:00 PM Eastern Time, Monday through Friday, excluding holidays



100%

Response time by staff to ARIN Online web tickets



1.1 days

SERVICE LEVEL REPORT

ENGINEERING

Auto Reply for Registration → **100%**

Auto Reply for Routing Registry → **100%**

DNS Reverse Master Zones → **100%**

DNS Provided by ARIN → **99.978%**

FTP Data → **100%**

RESTful (Reg-RWS) Services → **100%**

Routing Registry → **100%**

RWhois → **100%**

Web Whois → **100%**

Webserver (http) → **99.963%**

Webserver (https) → **99.963%**

ARIN Online → **99.954%**

RPKI Repository → **100%**

RPKI Provisioning → **100%**

Whois → **100%**

Whois-RWS → **100%**

RDAP → **100%**

ENGINEERING



Mark Kusters
Chief Technology
Officer

This past year was a busy one for the Engineering Department. To give you a quick snapshot that is representative of our workload, we had 19 releases of ARIN Online over the course of 2019, and we closed four suggestions that involved Engineering effort.

In March, we debuted the newly-redesigned website at www.arin.net. This overhaul was the result of two years of hard work and collaboration between all of ARIN's internal teams. The new www.arin.net is both responsive and accessible, which were two of our most important criteria in the website's creation.

Some of our other accomplishments include:

- Implemented the RDAP web interface
- Moved to a stateless application to ensure no server-side timeouts for users connected to ARIN Online. Our new architecture also allows ARIN to introduce changes with no downtime
- Added Routing and DNS Points of Contact (POCs). These new POCs allow organizations to separate areas of functionality to various groups. Routing POCs will be able to use the new Internet Routing Registry as well as the existing Resource Public Key Infrastructure (RPKI) system
- Implemented changes that allow users to retain tickets of their choice with the automatic deletion of all other Report Tickets in 90 days
- Started the automated Orphan POC/Org deletion process
- Introduced Kubernetes and rolled out microservices within ARIN's infrastructure
- Re-architected our provisioning infrastructure in production to match the Disaster Recovery site
- Performed numerous upgrades to IT and hardware systems and carried out a PBX overhaul
- Began to migrate to a new virtualization platform in order to save on costs
- Built a meeting network for our spring member meeting and were responsible for all public facing technical services associated with the biannual member meetings

The Engineering Department is ready to tackle new projects in 2020 and bring some additional projects to completion. As always, thank you to the community for your continuing feedback and ideas.

OFFICE OF THE CHIEF CUSTOMER OFFICER



John Sweeting
Chief Customer Officer

ARIN officially established the Office of the Chief Customer Officer (CCO) in the fourth quarter of 2019. John Sweeting was promoted to the position of CCO from his previous role of Senior Director of Registration Services, and Jon Worley (Technical Services Lead), Jason Byrne (Senior Web Content Coordinator), and Sean Hopkins (Policy Analyst) will join him on this new team.

Heading into the department's first year of service, the primary focus will be to oversee and maintain best-of-breed customer excellence across ARIN's service departments. This will ensure that ARIN not only meets customer expectations, but consistently exceeds them.

Product management will be another important focus of the department. This will include developing a product catalog of all products and services offered by ARIN.

In addition to these two main areas, the Office of the CCO will be responsible for the following:

- Supervising all activities involved in the investigation of allegations of fraud against ARIN and the community
- Overseeing ARIN's Policy Development Process
- Managing the annual election process for all elected offices within ARIN
- Developing, coordinating, directing, and administering corporate policies related to all phases of the customer experience

Last but surely not least, the CCO will oversee the Registration Services Department (RSD). The Director of Registration Services, Lisa Liedel, will report to the CCO, ensuring a constant stream of communication exists between these two service-oriented departments.

We hope that with the creation of this new office, it's obvious that providing excellent customer service to all of ARIN's customers is a top priority for us. We look forward to continuous improvement and exceeding the expectations of our community in our department's inaugural year.

REGISTRATION SERVICES



Lisa Liedel
Director

2019 was a very busy year for the Registration Services Department (RSD). The most significant events that happened during the year included fulfilling all requests on the IPv4 Waiting List, an audit of RSD for policy compliance, and a reorganization.

During the 4th quarter, the IPv4 Waiting List was cleared when all approved organizations received a distribution of IPv4 addresses. This landmark event was in direct correlation to the revised waiting list policy that went into effect in July 2019. It was a big win for our members and a surprise to everyone, even ARIN staff. No one ever thought we would ever have enough IPv4 addresses returned or reclaimed to fill every request on the waiting list.

Throughout 2019, there were 705 organizations added to the IPv4 Waiting List with 541 requests filled, 205 of those in December. The remaining requests were filled through the transfer process and subsequently removed from the IPv4 Waiting List.

In addition to the IPv4 Waiting List requests, our RSD team of 10 processed the following:

- 1,667 requests for Autonomous System Numbers
- 1,031 requests for IPv6
- 1,504 requests for Transfers (NRPM 8.2/8.3/8.4)
- Almost 10,000 other ticketed requests to the help desk
- Over 7,000 help desk calls

RSD secured an independent audit firm to ensure RSD is following all policies, procedures, and processes. We've recently received the results of the audit which will be provided to the Board of Trustees for review and the summary of the findings will be shared with the community shortly thereafter. The audit process is completed every other year to ensure adherence to policy and operational processes.

As you may already know, we've gone through a reorganization and RSD now reports to the Office of the Chief Customer Officer. We are looking forward to collaborating and bringing enhanced services and support to our members.

Our Customer Satisfaction/Transactional Survey continues to be a valuable tool to help RSD enhance our services and support offerings. With your feedback, we've been able to work with our staff to provide additional skills. We hope you'll take a few moments and provide us with your feedback during any of your requests.

RSD is looking forward to another busy year ahead.

COMMUNICATIONS



Hollis Kara
Director

2019 was a year of major changes for the Communications and Member Services Department (CMSD). In December, we underwent a name change to become the Communications Department following an internal reorganization that was part of the lead-up to the retirement of our long-standing leader, Susan Hamlin.

Our accomplishments this past year covered the following areas:

- ARIN's Policy Development Process
 - Supported the ARIN Advisory Council and executed two Public Policy and Members Meetings in Bridgetown, Barbados and Austin, Texas
- ARIN Elections
 - Exceeded voter quorum as successful elections were held to fill seats on the Board of Trustees, Advisory Council, and Number Resource Organization Number Council from the ARIN region
- ARIN Outreach
 - Continued to host one-day ARIN on the Road programs and a more informal two-hour session with customers called ARIN Lunch by the Numbers
 - Exhibited and spoke at various events throughout the U.S. and Canada to further our IPv6 messaging
- ARIN Fellowship Program
 - Supported the Selection Committee and all program communications and interactions with 21 Fellows who participated in ARIN's two Public Policy and Members Meetings (four Canadians, nine from the Caribbean, seven from the US)
- Social Media and Media Relations
 - Published 55 blog posts, including six IPv6 case studies, with 72,000 unique page views of TeamARIN.net
 - Created daily content for our social media channels including Twitter, Facebook, and LinkedIn, where we reach a combined audience of 18,000+ followers
 - Facilitated several social media campaigns including Next Steps with IPv6, 12 Days of ARIN Community, and an ARIN 44 "Top Tweeter" contest

We also had a few major new initiatives in 2019:

- Website
 - Completed a multi-year effort in partnership with the Engineering department to overhaul and deploy an improved ARIN website and ARIN Online customer application
 - New website launched in March, and the feedback from the community has been overwhelmingly positive
- Community Grant Program
 - Received a total of 23 applications
 - Selection Committee reviewed each application and ultimately selected four projects to receive \$44,500 in funding, which were approved by the Finance Committee and Board of Trustees
 - The four projects selected included: DNS Open-Source Tools Enhancement & Maintenance, IPv6 Training for Enterprises, CrypTech Open Source Cryptography Project, and Global NOG Alliance Admin Tool
- Training
 - Launched a new training program and offered multiple webinars on various topics, including a four-part Leadership Development series, the Policy Development Process (offered live and now on-demand), and IPv6 Address Planning
 - Current webinar attendance rates are at a robust 52% of registrants, which exceeds the national average of 46%
 - Released five user help videos for the website which have been viewed 2,650 times since publication
 - Released "Getting Started with IPv6" video in November which has already received over 600 views
 - Supported a number of in-person RPKI trainings at external events

As we move into 2020 as the Communications Department, we can't help but pause to look back at how much we accomplished under Susan Hamlin's leadership across the last two decades. It is our promise that we will continue to grow and improve in all our programs and offerings as we look for new ways to serve the ARIN community.

HUMAN RESOURCES AND ADMINISTRATION



Erin Alligood
Director

The Human Resources and Administrative Department tackled an array of projects in 2019. One significant undertaking for the team included converting ARIN's 401(k) administrative and compliance vendors. The plan successfully transitioned to the new provider effective 1 July 2019. ARIN also conducted mandatory harassment prevention training for its employees and managers.

2019 brought changes to some of ARIN's departments. Susan Hamlin, ARIN's outgoing Senior Director of the Communications and Member Services Department (CMSD), retired at the end of 2019 after 20 years of service to the organization. Consequently, Hollis Kara was promoted to Director of Communications. In conjunction with Ms. Hamlin's retirement, ARIN took an opportunity for a restructure of some of its departments. ARIN established an Office of the Chief Customer Officer (CCO) and promoted John Sweeting to this new important role. This new office will promote customer excellence for ARIN and its members. Therefore, our Communications and Member Services Department (CMSD) has been restructured and is now known as the Communications Department. Also as a result, Lisa Liedel was promoted to the Director of Registration Services Department (RSD) and will report directly to the CCO office.

Additionally, ARIN established the Chief Financial Officer (CFO) role in 2019. Recruiting was conducted at the end of 2019 and the CFO position has been filled by Brian Kirk effective January 2020.

The Human Resources and Administration team is looking forward to another successful and productive year in 2020.

FINANCIAL SERVICES



Val Winkelman
Director

ARIN's Financial Services Department (FSD) is responsible for accounts receivable, accounts payable, budgeting, general accounting, customer contracts, and financial reporting. 2019 saw us undertake several projects of varying scope and size.

First, an independent financial audit conducted in early 2019 confirmed that ARIN's accounting practices remain consistent with Generally Acceptable Accounting Principles (GAAP) and, as a result, no deficiencies were found. In addition to our yearly financial audit, the Board of Trustees has also asked for a controls audit to be performed during 2020, and our department will be taking on this task.

Also in 2019, the budgeting schedule was moved up to allow the Finance Committee and Board of Trustees additional review time. Even with the short lead time, the review was completed successfully with participation from all of ARIN's departments.

Lastly, FSD has continued to focus on the accounts receivable collection process, resulting in less than 1% of bad debt accounts as compared to sales.

In 2020, a summary of our investment relations will be reviewed to ensure that ARIN is receiving the lowest cost for the best service. ARIN periodically performs these reviews, and they include analyzing credit card fees charged to ARIN for processing payments as well as the cost of a cash receipts lockbox account.

The FSD group receives thousands of emails, phone calls, and tickets each year. Heading into 2020, FSD remains focused on providing the best service possible to ARIN's membership and to the other departments in the organization.

GOVERNMENT AFFAIRS AND PUBLIC POLICY



Anne-Rachel Inné
Executive Director

The Government Affairs and Public Policy (GAPP) Team continued our work with Governments in our region and internationally. GAPP participated in meetings/panels or was a discussant and active member of the International Telecommunications Union (ITU), the Organization of American States/Inter-American Telecommunication Commission (OAS/CITEL), and the United Nations (UN), as well as at other agencies like OAS CICTE, the Inter-American Committee against Terrorism, and the Organization for Economic Co-operation and Development (OECD), amongst others.

Closer to the technical community, GAPP participated in several ICANN, US IGF, and IETF meetings in 2019. A lot closer to the technical community, there was discussion on the global shortage of IPv4 addresses and how to mandate the adoption of IPv6, as well as talks of "New IP" at the ITU. Emerging talks on RPKI adoption coupled with the above resulted in questions directed to the technical community about their role and responsibilities.

GAPP worked with our Caribbean colleague, Bevil Wooding, at all levels to continue support to that part of our region.

We worked with DIPLO US on the course entitled, "Introduction to Digital Policy and Diplomacy" for about 40 diplomats in New York. The course is designed to benefit diplomats who follow Internet governance (IG) and other Internet-related policy fields (e.g. telecommunications, human rights, cybersecurity, and trade).

Cybersecurity was paramount among subjects discussed at international public policy meetings in 2019. Thus, GAPP was invited to participate and monitor several meetings and especially those at UN General Assembly First Committee related to the Open-Ended Working Group (OEWG) and the Group of Governmental Experts (GGE). GAPP participated in regional meetings organized by OAS CICTE and at the UN to explain the role of a Regional Internet Registry and the multi-stakeholder model that underpins the networking technical world. Furthermore, the focus on privacy/data protection increased globally, as well as the number of laws. We also participated in the usual ITU Standardization and Development Study Groups (SG) as well as a few other SGs that are seeing many more resolutions on the New IP concept and its relationship with the future networks.

Overall, networks are becoming "smarter" and therefore carrying a lot more sensitive and official information. As a result, 2019 saw the culmination of many challenges that international public policy work is looking at addressing.

In summary, the geopolitical world is intertwining more in the technical work of the RIRs, and 2019 showed us the beginning of a global break that will make ARIN's work even more challenging in helping to preserve the continued innovation and evolution of the Internet.

GLOBAL REGISTRY KNOWLEDGE



Leslie Nobile
Senior Director

In 2019, as the Senior Director of Global Registry Knowledge, I placed a global focus on three main areas of work: improving registry data integrity and accuracy; collaborating with law enforcement and public safety organizations; and general outreach and capacity-building with industry partners to our various Internet communities.

In the data integrity and accuracy sphere, I worked with ARIN internal teams to implement the Deletion of Orphaned Orgs and Point of Contact records (POCs), a project that I developed back in 2017. This project included input received from a consultation with the ARIN community, and its successful implementation is an important step towards achieving our goal of improving the accuracy of the ARIN registry.

This year, we made a concentrated effort to engage with law enforcement and public safety agencies globally. I collaborated with law enforcement agencies (LEAs) many times over the past year on a variety of items including data accuracy and Whois, potential fraud at ARIN as well as at other RIRs, and ways to establish good working relationships with the network operator community. I continued my ongoing collaboration with ICANN's Security, Stability and Resiliency Team to help educate law enforcement and public safety communities on the Internet ecosystem and how our organizations can help support their efforts to fight cyber-crime. We held joint training workshops in both the U.S. and Canada with participation from a wide variety of both criminal and civil LEAs. I also worked closely with ARIN's Director of Caribbean Affairs, Bevil Wooding, to organize a successful law enforcement and public safety workshop in Barbados following ARIN 43.

Additionally, I initiated an effort along with some of my RIR colleagues to create a new Coordination Group (CG) in the Number Resource Organization (NRO) that focuses on our efforts to support law enforcement and public safety organizations. The Public Safety CG has been approved by the NRO Executive Council and is now up and running.

I continued to engage with some of our key industry partners in 2019 to educate and train our various communities. I created a new presentation entitled "How it Works: the RIR System" and delivered it on behalf of the NRO at two ICANN workshops. These sessions were well-attended and well-received, so much so that ICANN has asked the NRO to make these presentations a permanent part of their agenda at their first and third meeting of every year. I also participated in several NANOG events as part of their inaugural program aimed at providing college students with relevant information on trends in the Internet industry as well as potential career paths. It was a very rewarding experience to be able to help guide the next generation of Internet geeks!

Much of the work that I've outlined will continue into the coming year as I look for new avenues and ways to spread ARIN's key messages. I look forward to another busy and productive year ahead!

CARIBBEAN AFFAIRS



Bevil Wooding
Director

ARIN's outreach and impact in the Caribbean increased positively in 2019. We realized our strategic goals of engaging the ARIN Caribbean community; increasing Caribbean participation in ARIN policy meetings; increasing the uptake of ASNs and IPv6; and strengthening our partnerships in the region.

The growth of ARIN's community and interest in ARIN's work in the Caribbean was evident at multiple events this past year. To begin with, we saw increased participation at the second ARIN Caribbean Forum in Barbados, held in conjunction with ARIN 43. The Forum continues to provide a valuable space for engaging our three primary communities in the Caribbean: the technical community, Internet public policy stakeholders, and law enforcement and public safety officials. Additionally, the presence of Fellows from the Caribbean region at our Public Policy and Members Meetings increased over the previous year, with six fellowships granted to Caribbean Nationals in 2018, and nine granted in 2019.

2019 also saw the staging of the Inaugural ARIN State of the Caribbean Internet Symposium. The event drew a diverse audience of over 150 senior officials from 10 Caribbean nations, and featured expert speakers and round-table discussions on the issues, trends, and opportunities impacting adoption and development of the Internet in the Caribbean.

Together these events were successful in the following:

- Raising awareness of ARIN in the Caribbean
- Highlighting critical internet policy and technical issues
- Engaging government, regulatory, business, and technical community leaders
- Strengthening strategic relationships with Caribbean partners
- Establishing strategic priorities for future ARIN Caribbean outreach

In 2019, ARIN also strengthened its existing partnerships with the Caribbean Telecommunications Union (CTU), the Caribbean Network Operators Group (CaribNOG), the Organization of Eastern Caribbean States (OECS), LACNIC, ICANN, and ISOC. In particular, our collaboration with CaribNOG has helped deepen our engagement with the technical community in the Caribbean. 2019 also marked the beginning of new collaborative relationships with Facebook and the Organization for American States (OAS) on cybersecurity. These strategic relationships bode well for our upcoming Caribbean outreach and capacity-building efforts.

When we look back on 2019 in terms of resource requests in the Caribbean, we can see a demonstrable increase in IPv4 applications and assignments, in addition to ASN applications and assignments. While there is still work to be done on increasing the number of IPv6 applications and assignments, our outreach initiatives are trending in the right direction and we expect increasing returns from our focus on technical capacity-building in the region.

Our 2020 Caribbean agenda will prioritize:

1. Capacity-building for the technical community
2. Promotion of autonomous networks and IPv6 adoption
3. Support for law enforcement on cybersecurity
4. Facilitation of public policy development to support Internet resilience, and security

To support this, the format and content for the ARIN Caribbean Forum and the ARIN State of the Caribbean Internet Symposium will continue to evolve. 2020 will also see continued outreach to foster development and expansion of the ARIN community in the Caribbean.

OUTREACH EVENTS

ARIN on the Road: Charlotte

5 February
Charlotte, NC

ARIN on the Road: Jacksonville

7 February
Jacksonville, FL

APNIC 47 with APRICOT

18-28 February
Daejeon, South Korea

NANOG 75

18-20 February
San Francisco, CA

2019 FISPA Hybrid Service Provider Conference

20-22 February
Nashville, TN
Speaker: John Curran
Session: Introduction to ARIN

ICANN 61

9-14 March
Kobe, Japan

IETF 104

23-29 March
Prague, Czech Republic

CanWISP 2019 Conference

25-27 March
Ottawa, Ontario
Speaker: John Sweeting
Session: What Every WISP Needs to Know About ARIN

ARIN 43

7-10 April
Bridgetown, Barbados

CaribNOG 17

10-12 April
Bridgetown, Barbados

Caribbean Telecommunications Union/ARIN Public Policy Group Meeting

11 April
Bridgetown, Barbados

15th Caribbean Internet Governance Forum

29 April – 3 May
Trinidad and Tobago

LACNIC 31

6-10 May
Punta Cana, Dominican Republic

2019 I-Light and Indiana GigaPOP Members Meeting

7-8 May
Indianapolis, IN
Speaker: Jon Worley
Session: ARIN: IPv4, DNSSEC, RPKI

SSIG 2019

13-17 May
Mexico City, Mexico

ARIN Lunch by the Numbers: Providence

14 May
Providence, RI

ARIN Lunch by the Numbers: Boston

15 May
Boston, MA

RIPE 78

20-24 May
Reykjavik, Iceland

ARIN on the Road: Montreal

30 May
Montreal, Quebec

Fiber Connect

3-5 June
Orlando, FL

Africa Internet Summit/AFRINIC 28

9-21 June
Kampala, Uganda

NANOG 76

10-12 June
Washington, D.C.

Caribbean Peering and Interconnection Forum (CarPIF)

11-13 June
Curacao, Grenada

OUTREACH EVENTS

ICANN 65

24-27 June
Marrakech, Morocco

IETF 105

20-26 July
Montreal, Quebec

CANTO 2019

21-24 July
Trinidad and Tobago

IGF-USA 2019

25 July
Washington, D.C.

New England Internet Peering Forum

2 August
Cambridge, MA

APNIC 48

5-12 September
Chiang Mai, Thailand

ARIN on the Road: Des Moines

19 September
Des Moines, IA

CaribNOG 18

25-27 September
Speakers: Mark Kusters and Jon Worley
Session: ARIN Update
Session: RPKI: Why You Should Care and How to Get Started
Session: Network Resiliency: Obtaining Resources from ARIN

ARIN Lunch by the Numbers: Brooklyn

1 October
Brooklyn, NY

LACNIC 32

7-11 October
Panama City, Panama

RIPE 79

14-18 October
Rotterdam, Netherlands

WISPAPALOOZA 2019

14-18 October
Las Vegas, NV

Internet 2 Technology Exchange

15-18 October
Orlando, FL
ARIN@TechEx Table "Get in on the IPv4 Transfer Market, Deploy IPv6, and Keep Your Whois Data Accurate"
Speaker: John Sweeting
Session: How to Get in on the IPv4 Transfer Market

NANOG 77

28-30 October
Austin, TX

ARIN 44

31 October – 1 November
Austin, TX

ICANN 66

2-7 November
Montreal, Quebec

2019 Canadian ISP Summit

4-6 November
Toronto, Canada

IETF 106

16-22 November
Singapore

Internet Governance Forum 2019

25-29 November
Berlin, Germany

State of the Caribbean Internet 2019 Symposium

4-5 December
Saint Kitts and Nevis

ARIN Lunch by the Numbers: Alexandria

5 December
Alexandria, VA

Internet2 Technology Exchange

9-12 December
New Orleans, LA
Speaker: John Curran
Session: Protecting Your Routes and DNS Records

POLICY DEVELOPMENT

The ARIN community engages in a Policy Development Process (PDP) to define how ARIN will manage and administer Internet number resources (IP addresses and Autonomous System Numbers). Community decisions are recorded as policies and published in the Number Resource Policy Manual (NRPM), available at <https://www.arin.net/nrpm/>

In 2019, 23 proposals were submitted to policy@arin.net. One was classified as an editorial change and implemented in July, one was rejected due to scope, one was withdrawn by the author, and the remaining 20 were advanced to Draft Policies and discussed by the community on the Public Policy Mailing List.

Eleven Draft Policies were abandoned by the Advisory Council. Five of the remaining nine were promoted to Recommended Draft Policies as a result of community discussions. Three of those Recommended Draft Policies were subsequently sent to Last Call, and all three were then submitted for Board of Trustees review in December of 2019.

Outside of this grouping, at their meeting on 16 January 2019, the Board of Trustees suspended issuance from the ARIN Waitlist for Unmet IPv4 Requests. The Advisory Council then formulated a recommended update to NRPM 4.1.8. Unmet Requests and submitted it to the Board of Trustees for review. At their meeting on 20 June 2019, the Board of Trustees adopted "Recommended Draft Policy ARIN-2019-16: Advisory Council Recommendation Regarding NRPM 4.1.8. Unmet Requests" and with it, the immediate reinstatement of the ARIN Waitlist for Unmet IPv4 Request issuance procedures.

VIEW POLICY PROPOSALS

Information about current draft policies and past policy proposals is available at:

<https://www.arin.net/participate/policy/drafts/>

HOW TO PARTICIPATE

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

https://www.arin.net/ mailing_lists/

Participate in biannual Public Policy and Members Meetings or other Public Policy Consultations in person or remotely.

<https://www.arin.net/participate/meetings/>

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.

<https://www.arin.net/pdp/>

PUBLIC POLICY DISCUSSIONS

One of the features of the Policy Development Process (PDP) is the opportunity to discuss policy proposals and changes at not only ARIN's biannual Public Policy and Members Meetings (PPMMs), but also Public Policy Consultations (PPCs), which are held at other forums approved by the Board of Trustees.

In 2019, two PPMMs were held. View the reports for each meeting:



<https://www.arin.net/ARIN43>



<https://www.arin.net/ARIN44>

ADVISORY COUNCIL REPORT

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).

The AC consists of 15 elected members and ARIN's President and CEO, who serves as an ex-officio member and AC-Board liaison.

Each year, the AC holds three in-person meetings and approximately nine teleconferences. View meeting minutes at <https://www.arin.net/about/welcome/ac/meetings/>



2019 MEMBERS

Owen DeLong
Andrew Dul
David Farmer
Kat Hunter
Alyssa Moore
Tina Morris, Chair
Amy Potter
Joe Provo
Kerrie Richards
Leif Sawyer, Vice Chair
Robert Seastrom
Chris Tacit
Alicia Trotman
Alison Wood
Chris Woodfield

2019 ELECTION RESULTS

In November 2019, Owen DeLong, Alyssa Moore, Tina Morris, Joe Provo, and Alison Wood were re-elected to serve three-year terms on the AC beginning 1 January 2020. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/procedures/>

ARIN would like to recognize outgoing AC member David Farmer, who resigned from the AC effective 31 December 2019. David served on the ARIN Advisory Council for 12 years, and ARIN sincerely thanks him for his dedication and service.

Anita Nikolich (the first runner-up in the 2019 ARIN AC election) was appointed to fill the remainder of David's unexpired term. Anita will serve on the ARIN AC from 1 January 2020 through 31 December 2020.

GLOBAL POLICY AND THE NRO NUMBER COUNCIL

The Number Resource Organization (NRO), <https://www.nro.net>, is a coordinating body for the five Regional Internet Registries (RIRs) – AFRINIC, APNIC, ARIN, LACNIC, and RIPE NCC.

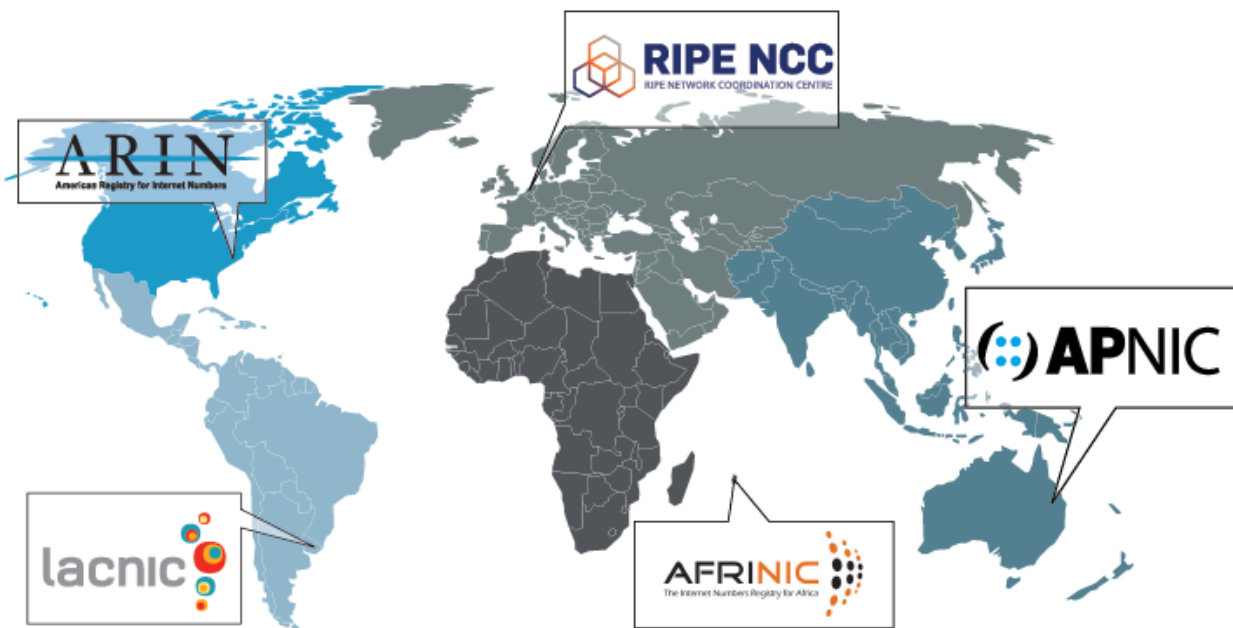
The NRO Number Council (NRO NC) fulfills the role of the Internet Corporation of Assigned Names and Numbers (ICANN) Address Supporting Organization Address Council (ASO AC) (<https://aso.icann.org>), providing advice to the Board of ICANN on global Internet number resource policy, in conjunction with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

There are three NRO NC representatives from each RIR region. The members from the ARIN region for 2019 were Kevin Blumberg, Louie Lee, and Jason Schiller.

2019 ELECTION RESULTS

In November 2019, Martin Hannigan was elected to serve a three-year term on the NRO NC beginning 1 January 2020. Read ARIN's NRO NC election guidelines at <https://www.arin.net/participate/oversight/elections/nronc/>

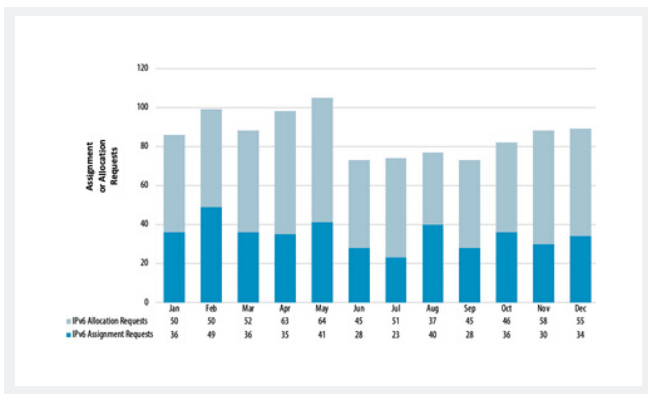
ARIN would like to recognize outgoing NRO NC member Jason Schiller. Jason served on the NRO NC for nine years, and ARIN sincerely thanks him for his dedication and service.



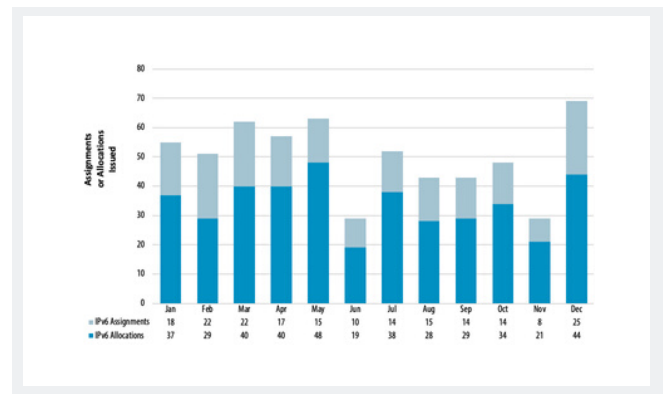
STATISTICS AND REPORTS

For more statistical reports, visit <https://www.arin.net/reference/research/statistics/>

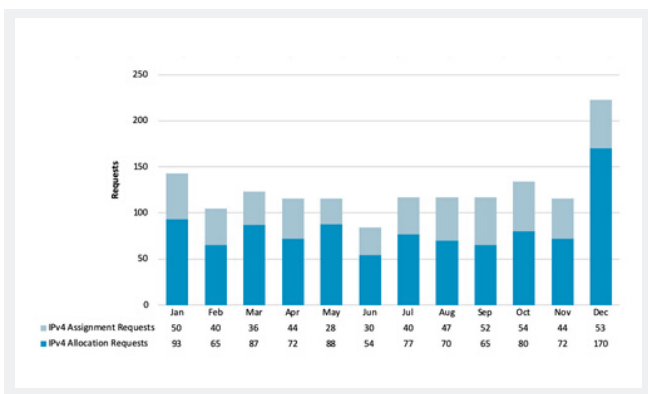
2019 Requests for IPv6 Address Space



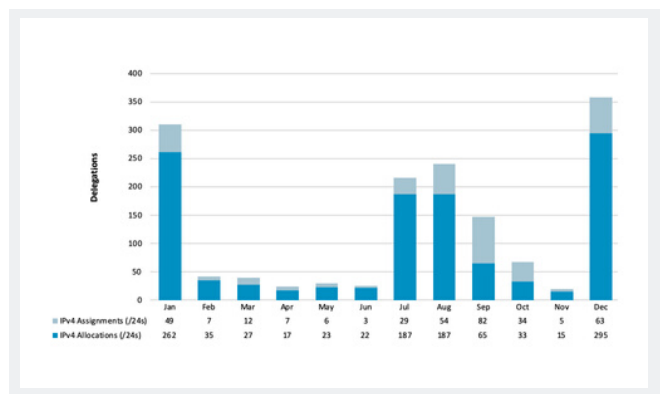
2019 IPv6 Address Space Issued



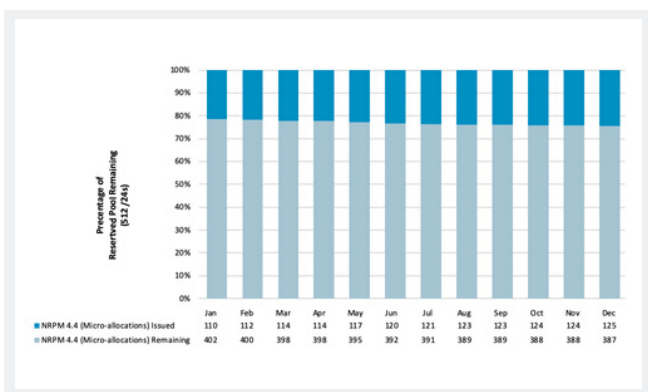
2019 Requests for IPv4 Address Space



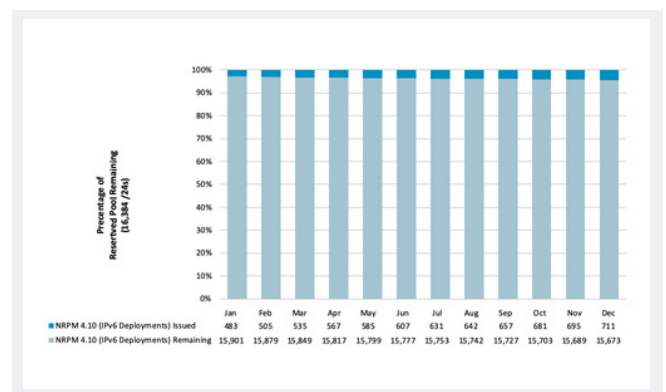
2019 IPv4 Delegations Issued by ARIN



2019 IPv4 Reserved Pool Status - NRPM 4.4

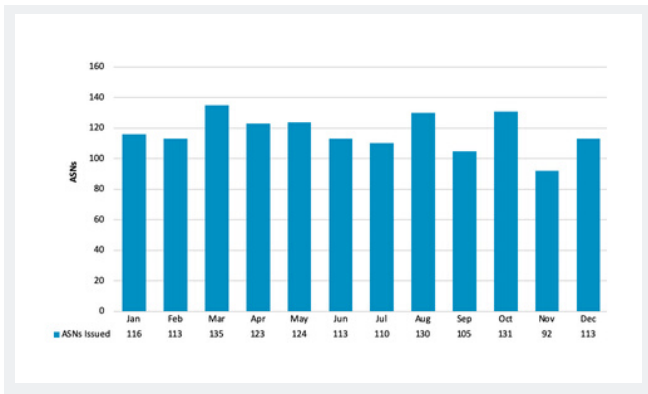


2019 IPv4 Reserved Pool Status - NRPM 4.10

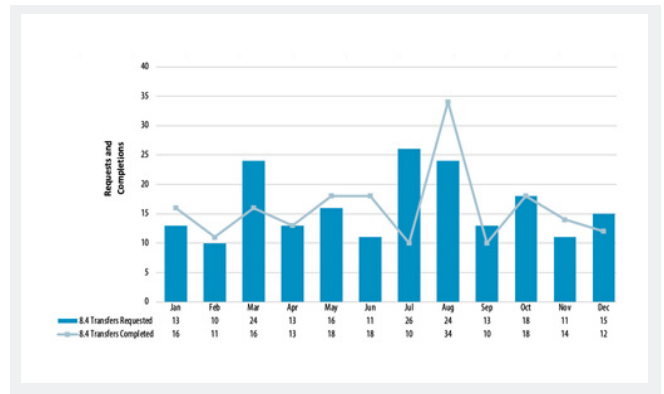


STATISTICS AND REPORTS

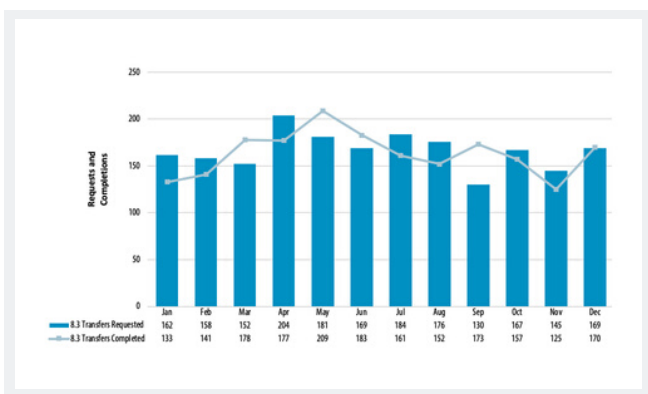
2019 ASNs Issued by ARIN



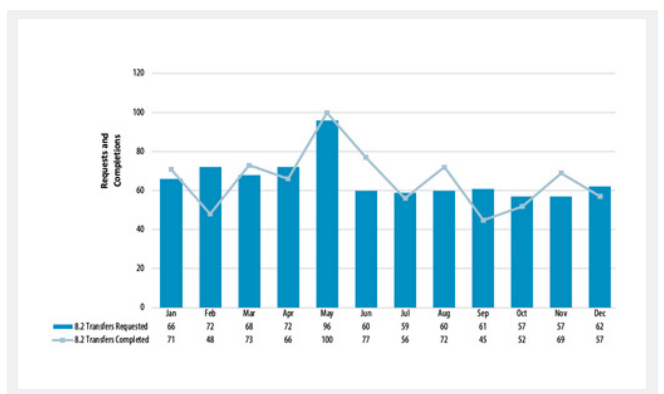
2019 8.4 Transfers Requested and Completed



2019 8.3 Transfers Requested and Completed

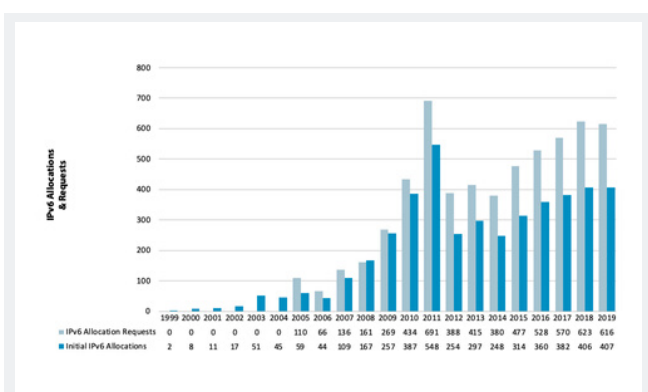


2019 8.2 Transfers Requested and Completed

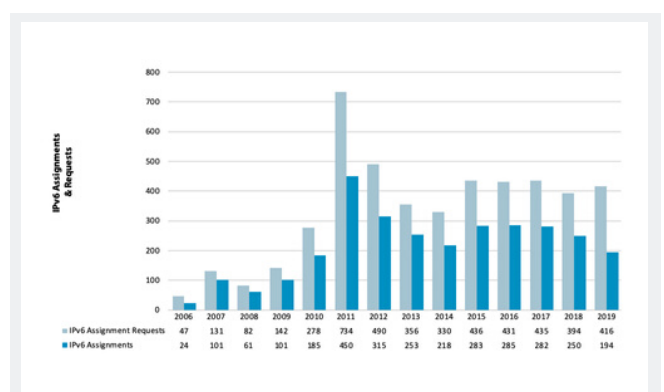


HISTORICAL REPORTS

IPv6 Address Allocations and Requests, 1999-2019

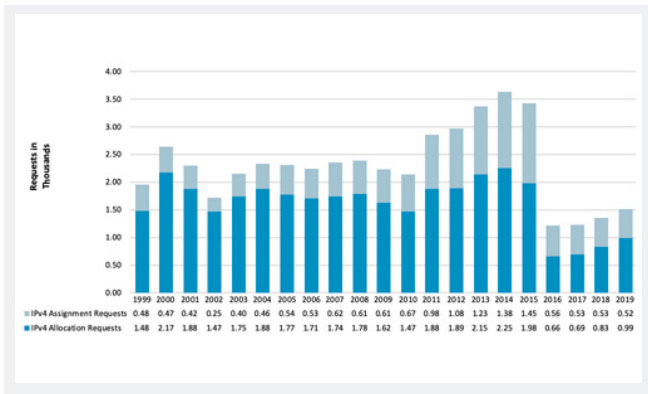


IPv6 Address Assignments and Requests, 2006-2019

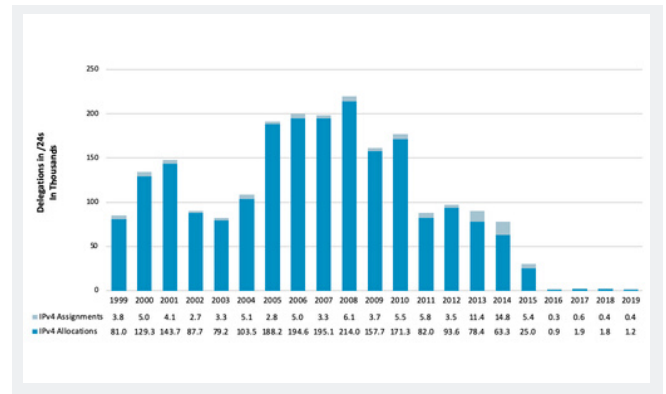


STATISTICS AND REPORTS

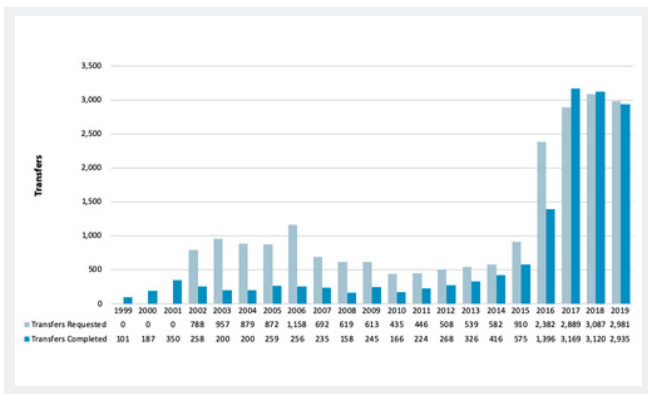
IPv4 Requests by Category, 1999-2019



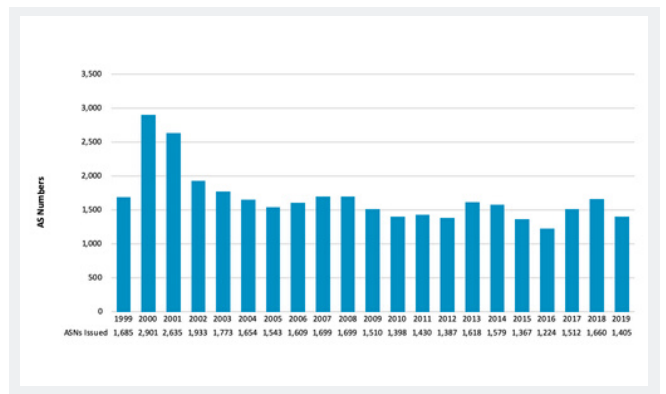
IPv4 Delegations by Category, 1999-2019



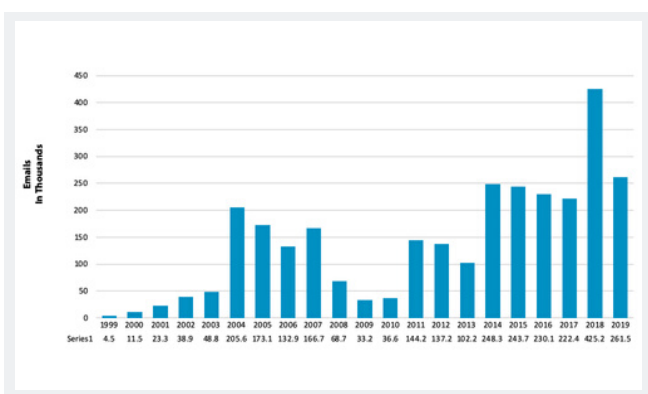
New Requests for Transfers and Completed Transfers, 1999-2019



ASNs Issued by ARIN, 1999-2019



Email Received at hostmaster@arin.net, 1999-2019



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 2019 will be made available for community review on ARIN's public website following the conclusion of our audit.