



ARIN

American Registry for Internet Numbers

2018

ANNUAL REPORT



TABLE OF CONTENTS

Organization Information	3
About ARIN	3
ARIN Region	4
President's Letter	5
Board of Trustees Report	6
Chairman's Letter	7
Board of Trustees Actions	8
Year in Review	9
Chief Operating Officer's Report	9
Service Level Report	10
Department Reports	14
Outreach Events	22
Policy Development and Public Policy Discussions	23
Advisory Council Report	24
Global Policy and the NRO Number Council	25
Statistics and Reports	26
Auditor's Report	29

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 four areas:

Registration Services

These include the allocations, assignments, and transfers of all Internet number resources (IPv4 and IPv6 addresses and Autonomous System Numbers), help desk operations, 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.

Organization Services

These pertain to interaction between ARIN members and customers, stakeholders, and ARIN. They include annual Board of Trustees and Advisory Council elections, Public Policy and Members Meetings, communications, public relations, education, outreach, and training services.

Policy Development Services

These include the support and administration of ARIN's Policy Development Process (PDP), conducting Public Policy Consultations and Public Policy and Members Meetings, maintaining discussion email lists, and publishing policy documents like the Number Resource Policy Manual (NRPM).

Technical Services

These include the development, implementation, and support of ARIN's internal systems, as well as community services like ARIN Online, Cryptographic Authentication, DNS Security (DNSSEC), RESTful Provisioning (Reg-RWS), Resource Public Key Infrastructure (RPKI), Registry Data Access Protocol (RDAP), and a community software repository.



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

In 2018, ARIN continued to put the focus on you: the valued members of our community. We sought your feedback, communicated with you on a number of issues, and reached out to you in new and different ways. As always, through it all, you helped guide us in the right direction.

Last year, we held a total of nine community consultations via the ARIN Consultation & Suggestion Process (ACSP). This was the highest number of consultations put forth to the community since the inception of the consultation process in 2006. We sought your feedback on everything from a proposed Internet Routing Registry Roadmap to how orphaned Organization and Point of Contact records should be handled. A huge “thank you” to everyone who participates in the ACSP.

We also continued to see a good deal of activity on the ARIN Mailing Lists. The ARIN Mailing Lists are a fantastic way to stay up to date with everything going on at ARIN, and several are open for discussion. If you haven’t taken the time to subscribe to a mailing list, make 2019 the year that you join in the conversation.

But our conversations didn’t all happen online. ARIN came straight to you a number of times in 2018.

We started the year off with several ARIN in the Caribbean events. Since launching this targeted effort, we have observed growing interest in Internet number resources, more organizations inquiring about IPv6, and a heightened focus on network resilience and security in the Caribbean. These positive developments align nicely with our four areas of strategic priority for the Caribbean: increase stakeholder awareness, strengthen community participation, deepen government engagement, and strengthen partnerships.

We also traveled all across our region to engage with you at industry events and conferences. We piloted a brand-new traveling event called “ARIN Lunch by the Numbers,” a shorter, more casual event created in response to ARIN customer feedback. You will see more of these in 2019.

A great deal of time was spent out in our community raising awareness about data privacy and security, and what ARIN is doing to keep your information safe. One of ARIN's core responsibilities is maintaining the registry of unique Internet number resources and provide accurate registration information about these resources. An accurate registry supports the overall operability and stability of the Internet. By keeping this information up-to-date, we can deter number resource hijackings, support network operators globally, and also assist law enforcement in conducting efficient investigations.

As we head into 2019, we’re ready to get to work and expand on these initiatives even more. Thank you for being a part of the ARIN community this past year and for your ongoing involvement and support. I look forward to continuing to work together in 2019.

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/>

2018 MEMBERS

Dan Alexander

Paul Andersen, Chair

Nancy Carter, Treasurer

John Curran, President and CEO

Patrick Gilmore, Secretary

Aaron Hughes

Bill Sandiford, Vice Chair



2018 APPOINTMENT

In July 2018, the ARIN Board of Trustees unanimously agreed to appoint Ms. Regenie Fräser to serve a one-year term on the ARIN Board of Trustees effective 1 January 2019. The appointment is part of the ARIN Trustees' ongoing commitment to Board diversity and fulfilled the April 2018 Call for Volunteers of Caribbean background.

2018 ELECTION RESULTS

In October 2018, Paul Andersen was re-elected and Peter Harrison was elected to the ARIN Board of Trustees. Each will serve a three-year term commencing 1 January 2019. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/procedures/>

ARIN would like to recognize outgoing Board member Aaron Hughes. Aaron served on the ARIN Board of Trustees for six years, and ARIN sincerely thanks him for his dedication and service.

CHAIRMAN'S LETTER



Paul Andersen, P. Eng
Chairman
ARIN Board of Trustees

In 2018, the ARIN Board of Trustees continued to work for the membership to evolve ARIN's mission and the organization for the rapidly changing environment we operate in. The rapid growth of the Internet in all directions combined with the continued deployment of IPv6 and a post-IPv4 world sees us continually evolving the organization while trying to execute on its mission.

Our daily interactions with our customers have grown in complexity as the volume of transactions continues to be steady but the majority of transactions now involve complex IPv4 transfers. The past year has seen many accomplishments as we modernize our technology and invest in our people. We have continued to set strategic priorities which attempt to deliver a more seamless experience for you, the customer.

Our objective to "promote and facilitate the expansion, development, and growth of the infrastructure of the Internet consistent with the public interest" has seen a strong emphasis on security, with a specific focus on Resource Public Key Infrastructure (RPKI). After many years of limited deployment, there has been a large degree of interest and deployment in this area recently. ARIN will continue to devote significant resources to ensure its role in this system provides the secure and stable services our community seeks.

We've also been working hard to improve participation in ARIN across the entire service region. To this end, in April 2018, we increased our Caribbean outreach activities with the introduction of the ARIN Caribbean Forum. By encouraging increased Caribbean participation in the ARIN community, we will be a stronger organization overall. To that same goal, in 2018 we worked on programs to build capacity for people who are interested in ARIN leadership positions and to strengthen ARIN's ties to the community for worthwhile Internet projects. You'll be hearing more about both of those programs in 2019.

We continue to evaluate how ARIN will interact with its customers, members, and the community in the future. While we anticipate there will continue to be a steady flow of requests for our services in the coming years, we will need to evaluate ways in which ARIN may need to evolve its policy, outreach and membership meetings to meet the needs of an ever-changing community. Your Board of Trustees looks forward to your input in this process in the coming years.

Finally, while the community is the source of much of the inspiration for our plans, we as a Board could only execute on these plans with the dedicated service of our world-class staff. I thank the entire ARIN staff for another year of service to the community. Specifically, I will take the opportunity to once again thank our long-time staff members Nate Davis and Cathy Handley, who entered a well-deserved retirement in 2018 after many years of service.

It has been a privilege and honor to serve the membership for another year. ARIN has been successful due to the many people who agree to serve as volunteers in ARIN's many community functions, such as the Advisory Council, various committees, and the ASO AC. On behalf of the Board, we thank you for your service.

To ARIN's members, thank you for placing your trust in the ARIN Board year after year, and thank you for guiding ARIN toward a strong future. I look forward to continuing to hear your feedback and work with each of you in the year ahead.

BOARD OF TRUSTEES ACTIONS

- 18 January 2018 Elected Officers:
 - Paul Andersen, Chairman
 - Bill Sandiford, Vice Chair
 - Patrick Gilmore, Secretary
 - Nancy Carter, Treasurer
- Adopted ARIN Board Standing Rules
- Authorized the Treasurer to approve Future Commitments
- Discharged the Services Working Group
- Dissolved the Board Governance Committee
- 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), Aaron Hughes, and Bill Sandiford
- Accepted the ARIN Audit Committee charter and appointed members Patrick Gilmore (Committee Chair), Dan Alexander, and Paul Andersen
- Appointed ARIN Mailing List Acceptable Use Policy (AUP) Committee members Aaron Hughes (Committee Chair), Amy Potter, and Stephen Middleton
- Appointed Paul Andersen to serve as the 2018 ARIN Board Observer to the NRO EC
- Accepted the 2018 Fellowship Selection Committee Charter and appointed Bill Sandiford (Committee Chair), Chris Woodfield, Sean Stuart, and Brian Jones to serve on the Committee
- Approved revisions to the ARIN Consultation and Suggestion Process
- Adopted the ARIN 401K Fiduciary Investment Committee Charter
- Adopted ARIN Board and AC Travel Policies
- Adopted a revised Audit Committee Charter and Fellowship Selection Committee Charter
- Adopted the ARIN Board Appointment Process
- Established the 2018 Appointment Candidate Committee and appointed Patrick Gilmore, Dan Alexander, and Bill Sandiford (Committee Chair)
- Adopted a revised ARIN Participants Expected Standards of Behavior
- Adopted the 2018 Nominations Committee Charter
- Appointed Board members Nancy Carter and Dan Alexander to serve on the 2018 Nomination Committee (NomCom), with Dan Alexander to serve as Chair
- Appointed Bill Sandiford as Election Vote Counter for the 2018 Elections
- Appointed Bill Sandiford to confirm the President's List of Eligible Voters for the 2018 Elections
- Reviewed and accepted ARIN IRS Form 990 for filing with the Internal Revenue Service
- Accepted the 2017 Financial Audit Report
- Adopted the revised ARIN Fee Schedule
- Adopted editorial changes to ARIN's Number Resource Policy Manual (Formerly 2017-11: Reallocation & Reassignment Language Cleanup)
- Adopted Recommended Draft Policy ARIN-2017-3: Update to NRPM 3.6: Annual Whois POC Validation
- Adopted Recommended Draft Policy ARIN-2017-8: Amend Community Network
- Adopted Recommended Draft Policy ARIN- 2017-10: Repeal of Immediate Need for IPv4 Address Space (NRPM Section 4.2.1.6)
- Adopted Recommended Draft Policy ARIN-2017-13: Remove ARIN Review Requirements for Large IPv4 Reassignments/Reallocations
- Adopted editorial changes to the Number Resource Policy Manual (NRPM) with regard to references to RWhois (Formerly ARIN-Prop-251: Correct References to RWhois)
- Adopted the ARIN Trustee Expected Qualifications and Responsibilities document
- Adopted the 'Questionnaire for Potential ARIN Board Members' document as presented, noting the ARIN Nomination Committee may add questions to the Questionnaire
- Adopted the revised ARIN Election Process
- Remanded ARIN Recommended Draft Policy 2017-12: Require New POC Validation Upon Reassignment to the ARIN Advisory Council for a more complete policy assessment
- Appointed Regenie Fräser to the ARIN Board of Trustees for a one-year term starting 1 January 2019, and as an Observer to the ARIN Board in the interim period effective 1 August 2018
- Adopted the 2019-2020 ARIN Strategic Plan
- Confirmed the results of the ARIN 2018 Elections
- Approved the 2019-2020 ARIN Budget
- Approved the 2018 401K 5% Discretionary Contribution to employees of record participating in ARIN's 401K Plan as of 1 December 2018
- Adopted Recommended Draft Policy ARIN-2018-1: Allow Inter-regional ASN Transfers
- Adopted Recommended Draft Policy ARIN-2018-3: Remove Reallocation Requirements for Residential Market Assignments
- Adopted Recommended Draft Policy ARIN-2018-4: Clarification on Temporary Sub-Assignments
- Adopted ARIN-Prop-255: NRPM Cleanup
- Adopted ARIN-Prop-256: Modify 8.3 and 8.4 for Clarity
- Bid farewell to Cathy Handley and expressed their sincere appreciation for her dedication and service to ARIN as its Executive Director of Government Affairs and Public Policy
- Bid farewell to Nate Davis and expressed their sincere appreciation for his service and dedication to ARIN as its Chief Operating Officer
- Bid farewell to Aaron Hughes and expressed their sincere appreciation for his service, insights, and contributions to the ARIN Board
- Appointed Cathy Aronson as the IETF Reporter for 2019

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 2018 ARIN Strategic Plan while keeping in lockstep with ARIN's mission, operating goals, and financial goals. Some highlights of the completed key objectives in support of ARIN's strategic plan were:

- Conducted six ARIN on the Road events, two ARIN Lunch by the Numbers customer events, and two ARIN Public Policy and Members Meetings.
- Completed six suggestions from the ARIN Consultation and Suggestion Process:
 - 2017.5 – Add Details to Annual Invoices
 - 2017.11 – Mailing List Support of DMARC
 - 2017.18 – Enhancement of Daily ASN Delegation File
 - 2017.9 - Publication of Meeting Transcripts
 - 2018.1 – Revision Management System for NRPM
 - 2018.12 – Request for Board Travel Report
- Deployed a number of ARIN software releases, all available for review on <https://www.arin.net/resources/guide/account/features/>
- Conducted the following community consultations
 - 2018.1 - ARIN Internet Routing Registry (IRR) Roadmap
 - 2018.2 - ASO Review Consultation 2018
 - 2018.3 - Securing Whois Queries
 - 2018.4 - Expanding the Size of the ARIN Board of Trustees
 - 2018.5 - Proposed 2018 Fee Schedule Changes
 - 2018.6 - Open ASCP Suggestions
 - 2018.7 - Prohibit Attachments on ARIN Mailing List
 - 2018.8 - Consultation on Orphaned Organization (Org) and Point of Contact (POC) records
 - 2018.9 - Changes to the Specified Transfer Listing Service (STLS)
- Completed the 2018 annual independent financial audit
- Completed an independent Salary Survey
- Published results of Customer Satisfaction Survey
- Conducted educational outreach regarding the depletion of the regional IPv4 free pool, IPv6 deployment, and the community-based model of Internet number resource policy development
- Participated in key Internet Governance forum events
- Completed extensive work on the redesign of the ARIN website and user interface enhancements of our account management application, ARIN Online, all to be deployed in early 2019.

We look forward to continuing our service to the community and executing on the ARIN Strategic Plan in 2019.

SERVICE LEVEL REPORT

ARIN periodically reports service level commitments and performance against those commitments for community-provided services. 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	99%
--	------------

Respond to phone and email messages from ARIN customers within two business days	98.9%
--	--------------

BILLING SCHEDULE COMMITMENT:

Send invoices for new registrations within three business days following the approval announcement sent by Registration Services	99%
--	------------

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%
---	-------------

COMMUNICATIONS & MEMBER SERVICES

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

Published on
9 May 2018

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%

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

1.2 days

ENGINEERING

Auto Reply for
Registration **100%**

Auto Reply for
Routing Registry **100%**

DNS Reverse
Master Zones **100%**

DNS Provided
by ARIN **100%**

FTP Data **100%**

RESTful
(Reg-RWS)
Services **100%**

Routing
Registry **100%**

RWhois **100%**

Web Whois **100%**

Webserver
(http) **100%**

Webserver
(https) **100%**

ARIN Online **100%**

RPKI
Repository **99.8%**

RPKI
Provisioning **100%**

Whois **100%**

Whois-RWS **100%**

RDAP **100%**

DEPARTMENT REPORTS

ENGINEERING



Mark Kosters
*Chief Technology
Officer*

In 2018, the ARIN Engineering team focused heavily on ARIN Online improvements, community-suggested improvements fielded through ARIN's Consultation and Suggestion Process (ACSP), and overall service availability with a focus on technical debt.

Over the past year, the main focus within ARIN Online has been improving the web interface so that it is more intuitive and mobile-friendly, in conjunction with the launch of ARIN's redesigned website on 2 March 2019. The resulting website is in line with WCAG 2.0 accessibility requirements, providing greater ease-of-use for everyone.

Within directory services, the Engineering team has put additional functionality in place. We have added the ability for users to list networks for a particular Autonomous System Number within RDAP.

By sharing deployment and support responsibilities between Operations and Development groups and retooling our configuration management interface for non-legacy production systems, we have improved our ability to implement system changes and deal with production issues.

Finally, ARIN continues to work through high demand for its directory services. In 2018, ARIN endured multiple events where it experienced very high query rates over a long period of time. Engineering has retooled its systems to make them more efficient as well as placed custom tarpitting code within the infrastructure. This tarpitting allows ARIN to automatically throttle those users who send hundreds of queries per second.

The Engineering team looks forward to continuing to serve our community in 2019 and finding new ways to improve ARIN services.

REGISTRATION SERVICES



John Sweeting
Senior Director

2018 was another stellar year for the Registration Services Department (RSD) as it continued to focus on customer service, reducing processing time, and improving data accuracy. RSD reviewed and completed a steady volume of ticketed requests and assisted customers who called the help desk. The bulk of these tickets and requests were change of authority requests, including transfers, organization recoveries, organization name changes, and Point of Contact (POC) recovery requests.

RSD continued to process IPv4 requests and finished the year with over 250 organizations on the waiting list. The team filled 313 IPv4 requests in 2018, which consumed 791 /24s that were received back into the available pool. RSD processed over 1,600 requests for Autonomous System Numbers and over 1,000 requests for IPv6 address space. The NRPM 4.4 (Micro-allocation) and 4.10 (Dedicated IPv4 block to facilitate IPv6 Deployment) reserved IPv4 address pools had remaining inventories of 406 /24s and 15,935 /24s, respectively, at the end of the year.

In 2018, ARIN's Annual Customer Satisfaction Survey and transactional surveys revealed a swift uptick in customer satisfaction rating and positive comments. One standout comment in 2018 was:

"ARIN leads the way in customer service. Other companies would do well to try and poach the ARIN customer service group and have them bring some of that great customer service to their companies."

The RSD team remains staffed with 12 employees who provide support to customers on thousands of telephone calls to the ARIN help desk, service tens of thousands of request tickets each year, and provide support for ARIN Public Policy and Members Meetings and ARIN on the Road events throughout the year, in addition to many other industry meetings and outreach services.

RSD has enjoyed working with the ARIN community and looks forward to another great year in 2019.

COMMUNICATIONS AND MEMBER SERVICES



Susan Hamlin
Senior Director

2018 was another busy year for the Communications and Member Services Department (CMSD). CMSD's accomplishments this past year covered the following areas:

- ARIN's Policy Development Process: support of the ARIN Advisory Council, execution of two Public Policy Meetings (Miami, FL and Vancouver, BC), creation of a Number Resource Policy Manual (NRPM) Git repository providing a single Markdown file with commit history spanning all 46 versions of the NRPM (implementing Suggestion 2018.1), and communications about all policy-related matters.
- ARIN Elections: Voter quorum was exceeded 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: Planned and hosted one-day ARIN on the Road programs and introduced a new event, an informal two-hour session with customers called ARIN Lunch by the Numbers. ARIN exhibited and spoke at various events throughout the US and Canada to further its IPv6 messaging.
- ARIN Fellowship Program: Supported the Selection Committee and all program communications and interactions with 23 Fellows who participated in ARIN's two Public Policy and Members Meetings; seven Canadians, six from the Caribbean, eight from the US, and two outside of the ARIN region.
- Social Media and Media Relations: Published 68 blog posts on TeamARIN.net, including 15 IPv6 case studies. Daily content creation for our social media channels including Twitter, Facebook and LinkedIn where we reach a combined audience of 16,000+ followers. Facilitated two successful social media campaigns to engage our community in a conversation about IPv6.
- Websites and Other Content: Major initiative, in tandem with Engineering, to develop a new, responsive and accessible ARIN website. CMSD worked with the community at several points to get input on the site structure and navigation, as well as other elements of the user interface for ARIN Online. CMSD staff continue to migrate and update content and maintain two websites through Q1 2019.

As 2019 gets underway, CMSD will continue to support all of the programs and activities noted above. Additionally, the department looks forward to facilitating some new ARIN initiatives in the area of training, a refreshed ARIN Grant Program, and outreach to targeted industry associations in an effort to provide their members exposure to ARIN registration services.

HUMAN RESOURCES AND ADMINISTRATION



Erin Alligood
Director

2018 was a year of change for the ARIN team with regards to its Human Capital. Nate Davis, ARIN's outgoing Chief Operating Officer (COO), and Cathy Handley, ARIN's outgoing Executive Director of Government Affairs and Public Policy, both retired at the end of 2018, bringing changes on the horizon in late 2018 and into 2019 with these two important roles. These positions were filled by Richard Jimmerson and Anne-Rachel Inné, respectively.

In addition, ARIN reduced the size of its engineering staff based on the needs of the organization. We would like to recognize the service of these impacted employees and wish them well.

Some other notable highlights from 2018 include conducting a salary survey, converting payroll platforms, and changing medical insurance providers. ARIN's management team also participated in several facilitated management training sessions. These sessions assisted ARIN to address the themes within an employee engagement survey and to further our collaboration as an organization.

The Human Resources and Administration team is looking forward to another successful and productive year in 2019.

FINANCIAL SERVICES



Val Winkelman
Director

ARIN's Financial Services Department (FSD) is responsible for accounts receivable, accounts payable, budgeting, general accounting, and financial reporting.

This year, FSD was involved in the implementation of a new fee schedule which changed the annual registry maintenance fees for end users and legacy resource holders, as well as increased the fee for ARIN transfer facilitators effective 1 July 2018. ARIN also redesigned the billing invoice sent to customers, which contains detailed information on how to contact ARIN should there be any questions or concerns about invoices. Implementing the fee changes and redesigning the invoice involved working closely with the software development teams to make changes to the organization's accounting software and integration with ARIN Online.

FSD has continued to focus on the accounts receivable collection process, resulting in less than 1% of bad debt accounts as compared to sales. ARIN periodically reviews its banking relationship to ensure that it is receiving the lowest cost for the best service. This review includes credit card fees charged to ARIN for processing payments as well as the cost of a cash receipts lockbox account.

As confirmed by the independent financial audit conducted in early 2018, ARIN's accounting practices remain consistent with Generally Acceptable Accounting Principles (GAAP) and ARIN remains financially sound heading into 2019.

The FSD group remains at six employees and the team receives thousands of emails, phone calls, and tickets each year. FSD remains focused on providing the best service possible to ARIN's membership and to the other departments in the organization. As always, FSD welcomes feedback and suggestions for improvements.

GOVERNMENT AFFAIRS AND PUBLIC POLICY



Anne-Rachel Inné
Senior Director

In 2018, Anne-Rachel Inné formally took control of the Government Affairs and Public Policy (GAPP) Team, after having worked closely with Cathy Handley to transfer the critical functions of the role. Anne-Rachel brings a wealth of experience in the Internet Governance and Policy arena, having served most recently at ICANN as the Vice President of Governments Engagement.

In the past year, the GAPP Team continued its coverage of international events of importance to ARIN on international public policies related to the Internet. One major event was the ITU Plenipotentiary Conference that took place in Dubai, UAE, from 29 October to 16 November 2018. For the first time in the 153-year history of the organization, Member States elected a woman, Doreen Bogdan of the United States, to a top management position. She will be at the helm of ITU-D for the next four years. Other top positions include Chaesub Lee of the Republic of Korea for ITU-T, Mario Maniewicz of Uruguay for ITU-R, Houlin Zhao of China as Secretary General, and Malcolm Johnson of the United Kingdom as Deputy Secretary General.

The GAPP team also focused on revisions to existing Internet resolutions 101, 102, 130, 133, and 180, among others. The final language of those resolutions continues to reinforce the RIRs' relevance to the work of IP-based networks emphasizing our participation in international Internet related public policy discussions, globally.

Einar Bohlin continued to participate in ITU-T Study Group 2. This work includes application of numbering, naming, addressing, and identification plans for fixed and mobile telecommunications services. 2018 saw a notable increase in applications for telephone and international mobile subscriber identity numbers directly from the ITU for use in IoT deployments.

Lastly, Cathy Handley, Executive Director of the GAPP Team, officially retired in December 2018 after 10 years at ARIN. The GAPP Team wishes her all the best in retirement and thanks her for her outstanding service to the ARIN region.

FROM THE SENIOR DIRECTOR OF GLOBAL REGISTRY KNOWLEDGE



Leslie Nobile

In 2018, ARIN's Senior Director of Global Registry Knowledge concentrated her efforts in several areas: improving the integrity and accuracy of the registry data; working as ARIN's global law enforcement liaison through collaboration and training; and focusing on RIR policy and operations as they relate to IP address registration, inaccuracy, fraud, and abuse.

One major effort toward achieving improved registry data was the "Deletion of Orphaned Orgs and POCs" project. In August, a consultation was sent to the community in order to gather feedback about a possible procedure for deleting and archiving orphaned Org and POC records in the ARIN database. Using this feedback, ARIN devised a project plan for the deletion of orphaned Orgs and POCs and, as a result, is currently in the process of prioritizing the project for the 2019 work schedule.

In the area of law enforcement collaboration, the Senior Director of Global Registry Knowledge worked closely with Caribbean Liaison, Bevil Wooding, to establish the Caribbean Justice Sector Forum, aimed at increasing communication and collaboration amongst law enforcement throughout ARIN's region. The inaugural event was held in Miami in conjunction with ARIN 41 and saw participation from a variety of federal law enforcement agencies from the Caribbean, US, and Canada, local law enforcement from Miami, all RIRs, and ICANN. A second meeting will be held in Barbados in April 2019.

Other efforts involving law enforcement included a new initiative with the Internet Corporation for Assigned Names and Numbers (ICANN) to provide joint training to law enforcement across the ARIN region and beyond. ARIN collaborated with ICANN on three different outreach and training events in 2018 and has scheduled three new events for the first quarter of 2019, with more anticipated throughout the year. ARIN also attended and participated in many law enforcement and cyber security events, as well as ICANN meetings, where the focus was on supporting the Public Safety Working Group.

In 2019, the Senior Director of Global Registry Knowledge plans to implement new data accuracy projects and complete pending ones, provide support to ARIN's outreach and training programs, and to focus heavily on supporting, collaborating with, and providing training to law enforcement globally.

FROM THE CARIBBEAN OUTREACH LIAISON



Bevil Wooding

2018 was a milestone year for ARIN's Caribbean Outreach efforts. The ARIN Caribbean Forum was launched in April, creating a new and dedicated interface for engaging three strategic communities: Internet Public Policy stakeholders; Justice Sector representatives, including officials from law enforcement and the judiciary; and the Technical Community. Since its launch, the ARIN Caribbean Forum has also helped facilitate deeper collaboration with key groups in the Caribbean, including national governments, the Caribbean Telecommunications Union (CTU), the Caribbean Network Operators Group (CaribNOG), and the Organization for Eastern Caribbean States.

In 2018, ARIN's Caribbean Outreach Liaison, Bevil Wooding, spearheaded a series of outreach events under the "ARIN in the Caribbean" banner. Eight countries were targeted between March and June 2018: Grenada, Barbados, St. Kitts and Nevis, Saint Lucia, Antigua and Barbuda, Jamaica, the US Virgin Islands, and the British Virgin Islands. The ARIN in the Caribbean events attracted over 400 attendees, representing network operators, business leaders, regulators, and government officials. The events provided ARIN with new opportunities to hear directly from members in the Caribbean and to introduce new audiences to the ARIN mission and services.

2018 also saw increased collaborations with ARIN partners in the Caribbean throughout the year, including LACNIC, ICANN, and ISOC.

Based on the feedback we received on Internet development priorities in the Caribbean, in 2019 ARIN plans to continue promoting:

1. the establishment of autonomous networks
2. the adoption of next-generation Internet protocol, IPv6
3. law enforcement inter-agency collaboration on Internet security incidents
4. development of policy to support Internet development, resilience, and security
5. capacity-building initiatives for the technical community

The ARIN Caribbean Forum is expected to extend its work in these areas, as outreach efforts transition from introducing ARIN to fostering development and expansion of the ARIN community in the Caribbean.

OUTREACH EVENTS

ARIN in the Caribbean: Barbados

16 January
Warrens, Barbados

ARIN on the Road: San Diego

23 January
San Diego, California

ARIN on the Road: Albuquerque

25 January
Albuquerque, New Mexico

ARIN in the Caribbean: Grenada

6 February
St. George's, Grenada

ARIN in the Caribbean: Barbados

8 February
St. Michael, Barbados

APNIC 45 with APRICOT

19-28 February
Kathmandu, Nepal

NANOG 72

19-22 February
Atlanta, Georgia

ARIN in the Caribbean: St. Lucia

6 March
Point Seraphine, Castries Saint Lucia

ARIN in the Caribbean: St. Kitts and Nevis

8 March
Saint Kitts and Nevis

ICANN 61

10-15 March
San Juan, Puerto Rico

IETF 101

17-23 March
London, United Kingdom

ARIN 41

15-18 April
Miami, Florida

CaribNOG 15

19-20 April
Miami, Florida

KINBERCON

23-25 April
Speaker: John Sweeting
Session: How to Get Number Resources from ARIN – ASNs, IPv6, and even IPv4

2018 IP Vision Conference and Expo

23-25 April
New Orleans, Louisiana

Speaker: John Curran
Session: Realities of IPv6 Deployment

Africa Internet Summit/AFRINIC 28

29 April – 11 May
Dakar, Senegal

LACNIC 29

30 April – 4 May
Panama City, Panama

Cyber South School on Internet Governance

30 April – 2 May
Washington, D.C.

ARIN on the Road: Minneapolis

1 May
Minneapolis, Minnesota

ARIN on the Road: London, ON

3 May
London, Ontario

ARIN in the Caribbean: Antigua and Barbuda

8 May
St. John's, Antigua and Barbuda

RIPE 76

14-18 May
Marseille, France

ARIN in the Caribbean: British Virgin Islands

4 June
British Virgin Islands

ARIN on the Road: St. Louis

5 June
St. Louis, Missouri

ARIN in the Caribbean: U.S. Virgin Islands

6-7 June
U.S. Virgin Islands

ARIN on the Road: Atlanta

7 June
Atlanta, Georgia

Caribbean Peering and Interconnection Forum (CarPIF)

13-14 June
Belize City, Belize

ICANN 62

25-28 June
Panama City, Panama

NANOG 73

25-27 June
Denver, Colorado

IETF 102

14-20 July
Montreal, Quebec

EDCO New Technology Briefing

14 July
Montreal, Quebec
Speaker: John Sweeting
Session: Getting IPv6 from ARIN is Easy

CANTO 2018

22-25 July
Panama City, Panama

APNIC 46

6-13 September
Nouméa, New Caledonia

ARIN Caribbean Forum: Kingston

11 September
Kingston, Jamaica

ARIN Caribbean Forum: Montego Bay

13 September
Montego Bay, Jamaica

NANOG on the Road: Washington, D.C.

21 September
Washington, D.C.
Speaker: Mark Kusters
Session: RPKI

LACNIC 30

24-28 September
Rosario, Argentina

ICT Week – St. Kitts and Nevis

24-28 September
St. Kitts and Nevis

NANOG 74

1-3 October
Vancouver, British Columbia

ARIN 42

4-5 October
Vancouver, British Columbia

WISPAPALOOZA 2018

8-12 October
Las Vegas, Nevada

RIPE 77

15-19 October
Amsterdam, The Netherlands

Internet 2 Technology Exchange

15-18 October
Orlando, Florida
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

ICANN 63

20-25 October
Barcelona, Spain

EDUCAUSE Annual Conference

30 October – 2 November
Denver, Colorado
Speaker: John Curran
Session: Keeping Up With Changing Campus IT Networks

ARIN Lunch by the Numbers: Indianapolis

30 October
Indianapolis, Indiana

ARIN Lunch By the Numbers: Chicago

31 October
Chicago, Illinois

IETF 103

3-9 November
Bangkok, Thailand

Internet Governance Forum

12-14 November
Paris, France

2018 Canadian ISP Summit

5-7 November
Toronto, Ontario

NANOG on the Road: Toronto, ON

12 November
Toronto, Ontario

AFRINIC 29

26-30 November
Hammamet, Tunisia

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).

The NRPM is available at: <https://www.arin.net/participate/policy/nrpm/>

In 2018, six proposals were submitted to policy@arin.net. Two proposals were classified as editorial changes, and the remaining four proposals were advanced to Draft Policies and discussed by the community on the Public Policy Mailing List. Two Draft Policies were promoted to Recommended Draft Policies as a result of those discussions. Both Recommended Draft Policies and both editorial changes were ratified by the Board of Trustees during their December 2018 meeting. These policy changes will be implemented in early 2019, and the remaining Draft Policies remain under discussion heading into 2019.

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/participate/community/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/participate/policy/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 2018, two PPMMs were held. View the reports for each meeting:



<https://www.arin.net/ARIN41>



<https://www.arin.net/ARIN42>

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/>

2018 MEMBERS

Owen DeLong

Andrew Dul

David Farmer

Alyssa Moore

Tina Morris, *Chair*

Amy Potter

Joe Provo

Kerrie Richards

Leif Sawyer, *Vice Chair*

Robert Seastrom

John Springer

Chris Tacit

Alicia Trotman

Alison Wood

Chris Woodfield



2018 ELECTION RESULTS

In October 2018, Amy Potter, Kerrie Richards, Robert Seastrom, and Alicia Trotman were re-elected and Kathleen Hunter was elected to serve three-year terms on the AC beginning 1 January 2019. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/procedures/>

ARIN would like to recognize outgoing AC member John Springer. John served on the ARIN Advisory Council for six years, and ARIN sincerely thanks him for his dedication and service.

GLOBAL POLICY AND THE NRO NUMBER COUNCIL

The Number Resource Organization (NRO), <http://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) (<http://aso.icann.org/>), providing advice to the Board of ICANN on Internet number resource policy, in conjunction with the RIRs.

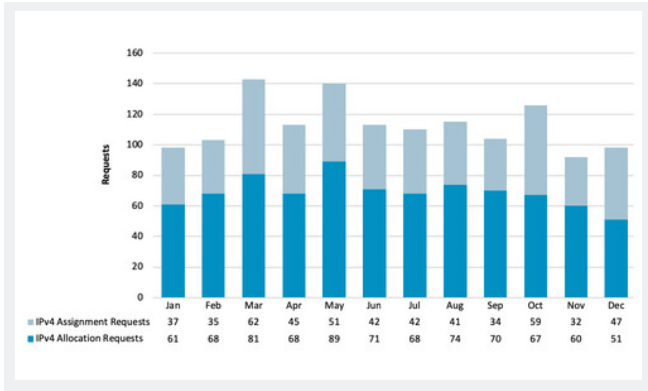
There are three NRO NC representatives from each RIR region. The members from the ARIN region for 2018 were Kevin Blumberg, Louie Lee, and Jason Schiller. We thank all of them for their service and commitment to the global Internet community.



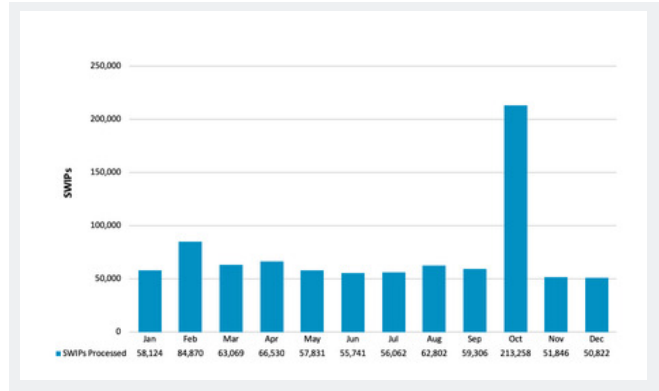
STATISTICS AND REPORTS

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

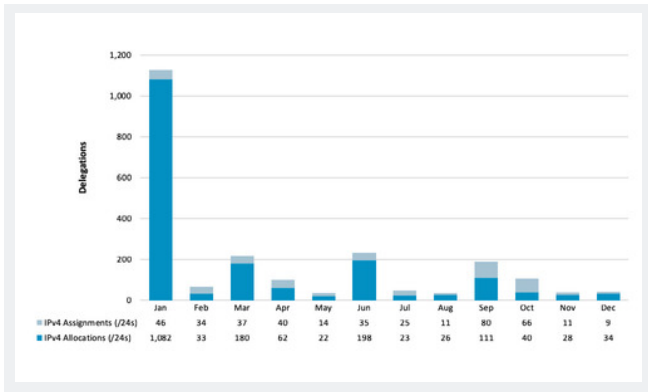
2018 IPv4 Address Requests



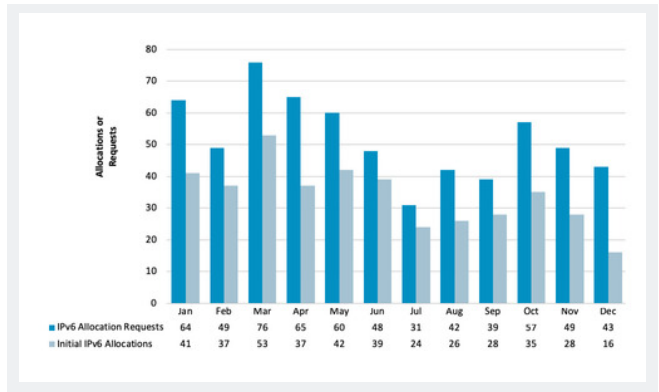
2018 SWIP Templates Processed by ARIN



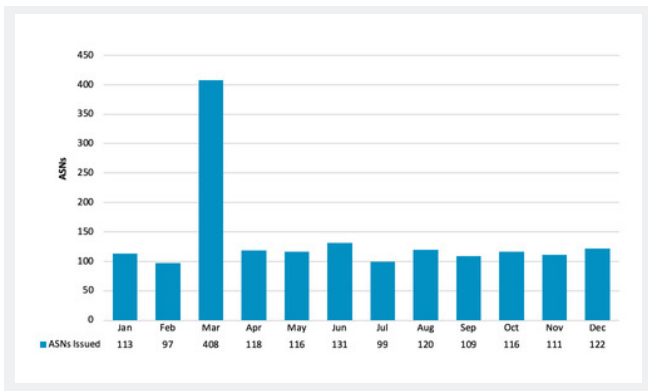
2018 IPv4 Address Delegations Issued by ARIN



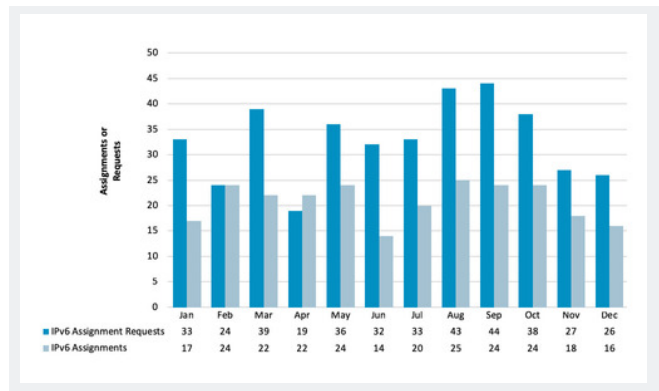
2018 IPv6 Address Allocations and Requests



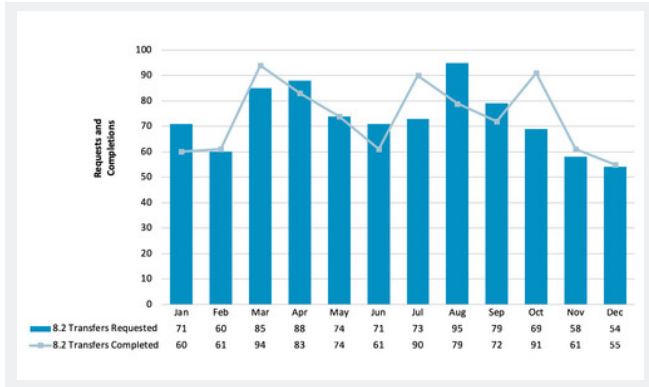
2018 Autonomous System Numbers Issued by ARIN



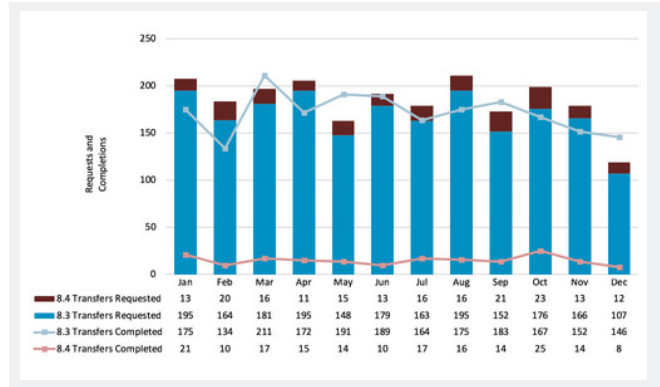
2018 IPv6 Address Assignments and Requests



2018 8.2 Transfers Requested and Completed

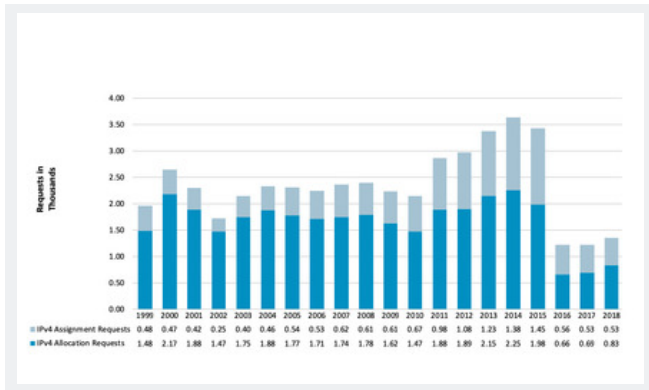


2018 8.3 & 8.4 Transfers Requested and Completed

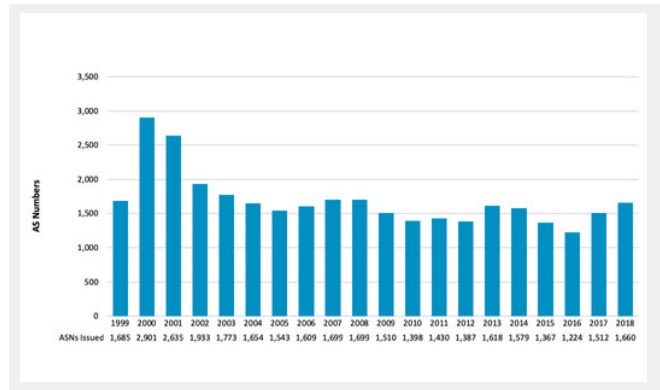


HISTORICAL REPORTS

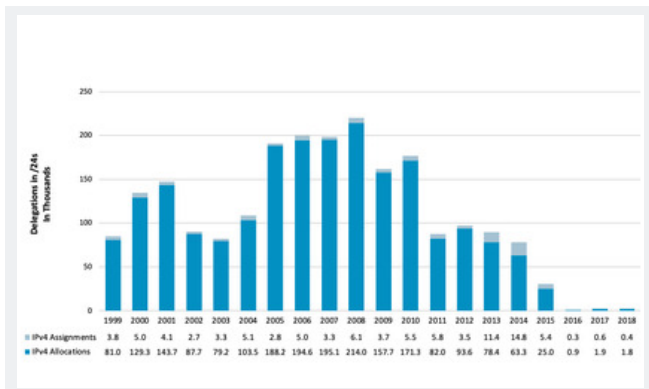
IPv4 Address Requests by Category 1999-2018



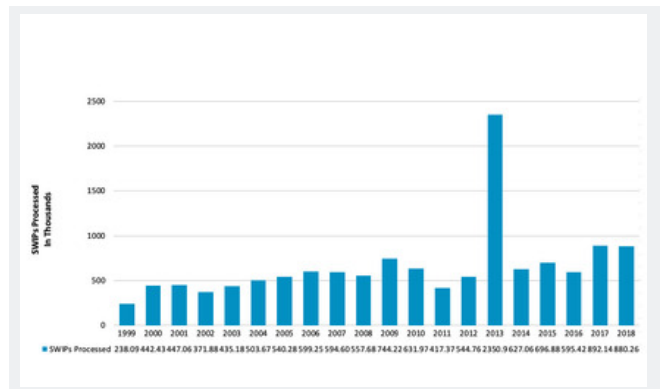
Autonomous System Numbers Issued by ARIN 1999-2018



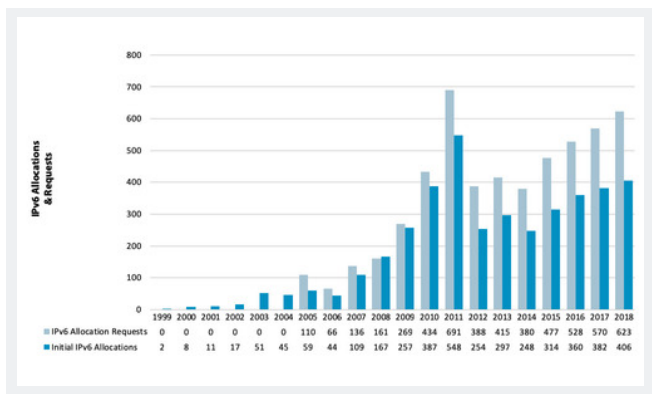
ARIN IPv4 Address Delegations by Category 1999-2018



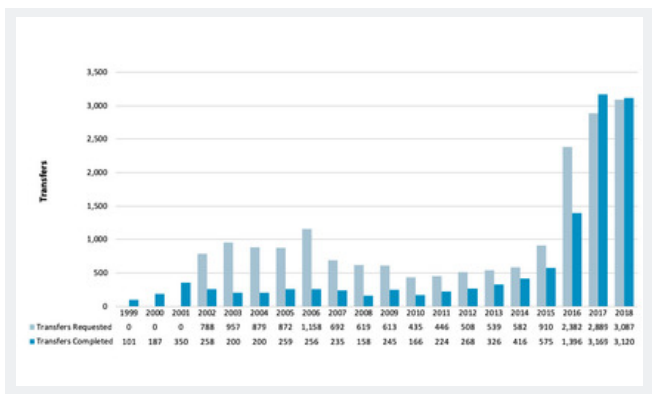
SWIP Templates Processed by ARIN 1999-2018



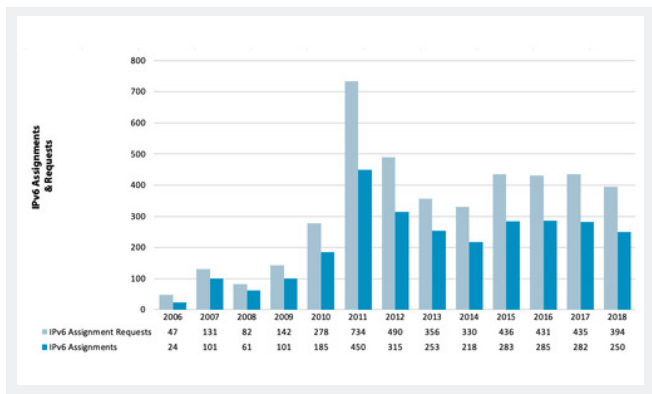
IPv6 Address Allocations and Requests 1999-2018



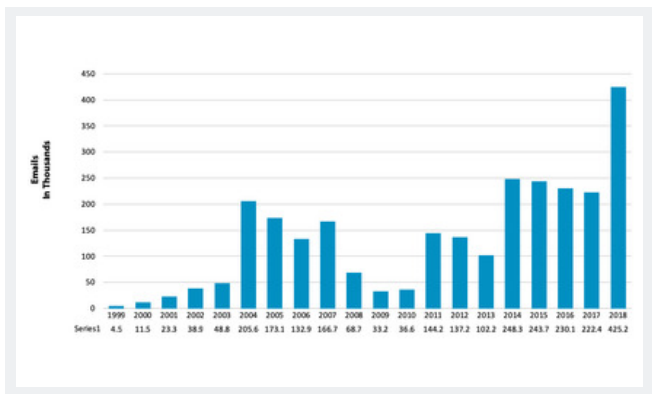
New Transfer Requests and Completed Transfers 1999-2018



ARIN IPv6 Address Assignments and Requests 2006-2018



Email Received at hostmaster@arin.net 1999-2018



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, and the audited financial statements are included with the Annual Report.

The financial statements for the year ending 31 December 2018 will be made available for community review upon completion.