



ANNUAL REPORT

2020

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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

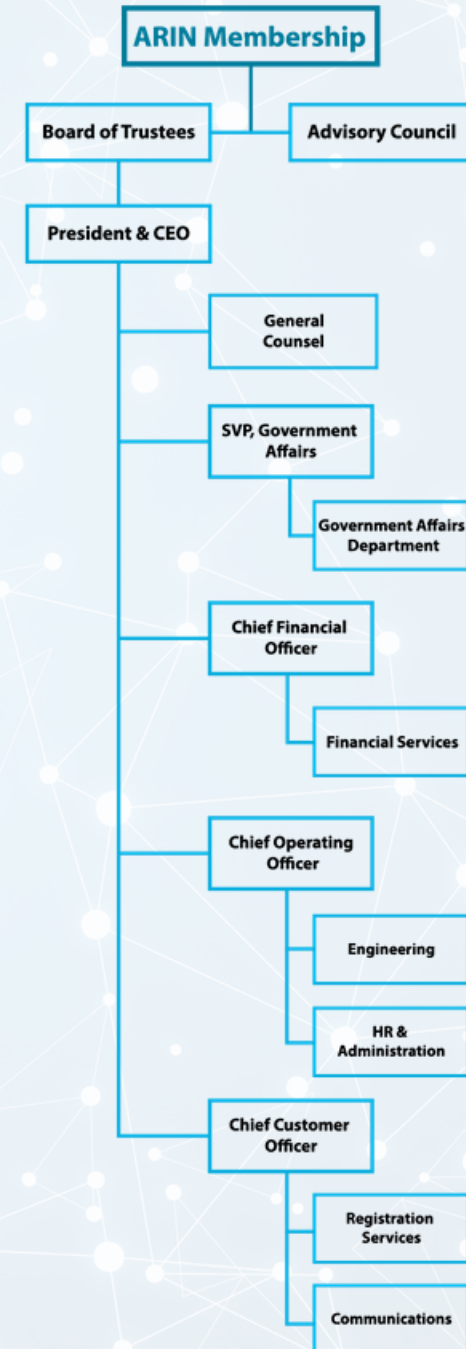
ARIN develops, implements, and supports both internal systems and community services like:

- 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 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).



JOHN CURRAN
President & CEO

While 2020 started off normal enough, the year took a turn in a direction none of us could have imagined. Despite a difficult year, the ARIN community continued its work in support of the Internet during a critical time when the world grew to rely on the Internet more than ever.

Our top priority during the COVID-19 pandemic has and always will be the safety and well-being of ARIN staff, volunteers, and community members. As we monitored information from the Centers for Disease Control (CDC), World Health Organization (WHO), and state and local health authorities, we enacted an ARIN COVID-19 Response Plan that took a phased approach to halting all our in-person interactions and moving our operations online.

Even though our environment changed, we continued to perform at a high level. We remained committed to ensuring proper and efficient administration of IP addresses and ASNs, managing resource transfers, facilitating the Policy Development Process, keeping ARIN services running, conducting training, and more. On top of that, we also accomplished other noteworthy items including releasing a new web-based Internet Routing Registry (IRR), introducing a new chat service for registration-related questions, hosting two fully-virtual Public Policy and Members Meetings for the first time, and so much more.

While this annual report will not be like years past, I think you will find that what we have been able to accomplish during such an unprecedented year is still impressive. I am proud of how our team has pulled together to overcome every obstacle thrown at them, all the while exceeding expectations.

With 2020 behind us and an uncertain future ahead, I have no doubt that we will rise to any challenges 2021 brings, and the days ahead will continue to illuminate the critical role ARIN plays in the operation of the Internet that connects us all together even when we are apart.

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/>

In 2020, the Board of Trustees consisted of seven members and a Board Secretary. Six members were elected by ARIN's membership, and the President and CEO of ARIN serves as the seventh member. The role of Board Secretary was fulfilled by ARIN's General Counsel, Stephen M. Ryan.

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. In 2020, due to COVID-19, the Board only met in-person once in January, and met via teleconference the rest of the year. View meeting minutes at <https://www.arin.net/about/welcome/board/meetings/>

2020 MEMBERS

Dan Alexander
Paul Andersen, Chair
Nancy Carter, Treasurer
John Curran, President and CEO
Peter Harrison
Catherine Middleton
Bill Sandiford, Vice Chair

BOARD SECRETARY

Stephen M. Ryan, General Counsel



2020 ELECTION RESULTS

In October 2020, Nancy Carter was re-elected and Tina Morris was elected to the ARIN Board of Trustees. Each will serve a three-year term commencing 1 January 2021. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/processes/>

ARIN would like to recognize outgoing Board member Dan Alexander. Dan served the ARIN Membership and community for many years on both the Board of Trustees and also as Advisory Council Chair. ARIN sincerely thanks him for his dedication and service.



PAUL ANDERSEN, P. ENG
Chairman
ARIN Board of Trustees

When I wrote to you this time last year, we were just beginning to see the effects of the worldwide pandemic. I'm proud to say that a year in, we've done our best not to let the pandemic slow us down, and we're still as committed as ever to serving our community and improving on our services offered.

2020 was full of highs and lows, but some of our highs at ARIN were our greatest accomplishments to date. For instance, in June we rolled out a new IRR - a project that was a long-time in the making. We also carried out two entirely virtual meetings to resounding acclaim from the community. I want to thank the ARIN team for everything they did to pull those two meetings together and without a blueprint to work from, much less. It was a challenge and they rose to it, and then some.

Behind the scenes, the Board was heavily engaged in its efforts to keep ARIN a strong and healthy organization. We updated ARIN's strategic direction with an increasing focus on maturing business practices and operations. This included forming a Board Governance Working Group that worked with external consultants to review best practices in organizational governance and their potential application to ARIN.

We spent a great deal of time evaluating data and recommendations to create a more uniform fee schedule to ensure equitable cost recovery across our community. We also championed ARIN in increasing its focus on product management and customer service, which required bringing new expertise onto ARIN's staff and has led to a number of great new programs which will be rolled out across 2021.

In October, we carried out a successful ARIN election season, even in an all-virtual world. I'm excited to work with the newest members of our Board of Trustees and Advisory Council and I know they'll bring invaluable input to our future discussions.

More than ever, 2020 reminded me what a devoted base of volunteers we have. We didn't get a chance to hit the road and see some of you as much as we have in past years, and that time together was sorely missed. Myself and ARIN recognize you all and your resolve to keep us running smoothly. You didn't even let a pandemic slow down your efforts to better the organization. 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. We are ever-aware of what an honor it is to be elected to serve and represent you. We never take it for granted.

As 2021 gets underway, I'm excited to continue to offer you our very best, just like we've always done, albeit in a very different world. We have some exciting projects and new developments in the works, so stay tuned. I look forward to seeing you in person at an ARIN event very soon.

2020 HIGHLIGHTS
(not an exhaustive list)

- 22 January 2020 Elected Officers:
 - Paul Andersen, Chairman
 - Bill Sandiford, Vice Chair
 - Nancy Carter, Treasurer
 - Stephen M. Ryan, General Counsel, Board Secretary
- Adopted ARIN Board Standing Rules
- Reviewed Non-Disclosure and Board Conflict of Interest Disclosures
- Authorized the Treasurer to approve Future Commitments
- Appointed ARIN Compensation Committee members Paul Andersen (Committee Chair), Dan Alexander, Nancy Carter, Peter Harrison, Catherine Middleton, and Bill Sandiford
- Accepted the ARIN Finance Committee Charter and appointed members Nancy Carter (Committee Chair), Paul Andersen, Peter Harrison, Bill Sandiford, and John Curran
- Accepted the ARIN Governance Working Group Charter and appointed members Nancy Carter (GWG Chair), Peter Harrison, and Catherine Middleton
- Appointed ARIN Mailing List Acceptable Use Policy (AUP) Committee members Dan Alexander (Committee Chair), Amy Potter, and Joe Pace
- Appointed Paul Andersen to serve as the 2020 ARIN Board Observer to the NRO EC
- Approved the ARIN 2020 - 2022 Strategic Plan
- Accepted the recommendation of the addition of 107.168.0.0/15 (direct allocation) to the ARIN IPv4 Reserves
- Adopted changes to the ARIN Election Process and the 2020 Nominations Committee Charter
- Approved Proposed ARIN 2020 Election Process Calendar
- Appointed Board members Catherine Middleton and Paul Andersen to serve on the 2020 Nomination Committee (NomCom), with Catherine Middleton to serve as Chair
- Appointed Bill Sandiford as Board Election Officer for the 2020 ARIN Elections
- Approved the ARIN Board of Trustees Guidance Letter to the 2020 Nomination Committee
- Approved Nomination Committee Questionnaires for Board and Advisory Council and subsequent changes
- Adopted measure per VA Non-Stock Act 13.1-824, to protect the health and safety of participants, meetings may be held entirely via remote participation mechanisms as deemed appropriate for compliance with public health guidelines for the duration of the Coronavirus public health crisis
- Reviewed and accepted ARIN IRS Form 990 for filing with the Internal Revenue Service
- Accepted the 2019 Auditors Report and Audited Finance Statement
- Adopted Changes to Authorized Reserve Account Signatories
- Accepted Change in 401(k) Trustee
- Approved Draft ARIN Trustee Skills Matrix for Nomination Committee
- Approved the ARIN 2019 Tax Compliance Report
- Accepted RSM Risk Assessment Report
- Adopted Board Travel Policy
- Adopted Recommended Draft Policy ARIN-2019-3: Update 4.10 - IPv6 Deployment Block

2020 HIGHLIGHTS
(not an exhaustive list)

- Adopted Recommended Draft Policy ARIN-2019-8: Clarification of Section 4.10 for Multiple Discrete Networks
- Adopted Recommended Draft Policy ARIN-2019-15: Hijacking Authorization Not-intended
- Adopted Recommended Draft Policy ARIN-2018-6: Clarifying Reassignment Requirements in 4.2.3.7.1
- Adopted an editorial change to the Number Resource Policy Manual ARIN-Edit-2020-1: Clarify Holdings Restriction for Section 4.1.8 Waitlist Entries
- Adopted Recommended Draft Policy ARIN-2019-1: Clarify Section 4 IPv4 Request Requirements
- Adopted Recommended Draft Policy ARIN-2019-12: M&A Legal Jurisdiction Exclusion
- Adopted Recommended Draft Policy ARIN-2019-20: Harmonization of Maximum Allocation Requirements under Sections 4.1.8 (ARIN Waitlist) and 4.2.2 (Initial Allocation to ISPs)
- Adopted Recommended Draft Policy ARIN-2019-21: Reserved Pool Replenishment
- Adopted an editorial change to the Number Resource Policy Manual ARIN-Edit-2020-4: Clarification of Reference to 8.2 in 8.3
- Adopted Recommended Draft Policy ARIN-2019-10: Inter-RIR M&A
- Adopted Recommended Draft Policy ARIN-2020-1: Clarify Holding Period for Resources Received via 4.1.8 Waitlist
- Adopted Recommended Draft Policy ARIN-2020-3: IPv6 Nano-Allocations
- Adopted Recommended Draft Policy ARIN-2020-5: Clarify and Update Requirements for Allocations to Downstream Customers
- Approved 2020 ARIN Grant Program Update
- Accepted the issuance of Grants per the Grant Selection Committee Report
- Confirmed the results of the ARIN 2020 Elections and reviewed the final report
- Approved the 2021 ARIN Budget
- Appointed Kevin Blumberg to the NRO NC for a three-year term ending December 31, 2023
- Appointed DiMeo Schneider as ARIN's Investment Consultant, and Charles Schwab as ARIN's Investment Custodian
- Accepted amendments to the 2021 ARIN Board of Trustees Conflict of Interest Policy Acknowledgment and Disclosure Forms
- Reviewed Board committee year-end reports



RICHARD JIMMERSON

The ARIN team headed into 2020 with a set game plan in mind, but—like the rest of the world—we quickly found those plans would need to be modified to fit a remote work environment. We moved from nearly a 100% in-person work environment to a completely remote operation in a matter of weeks in March of 2020.

Up until March, our workplace looked much the same as it always had. One key difference though was that ARIN's Senior Leadership Team was keeping a close eye on the impending risks of the rapidly-evolving COVID-19 pandemic. We developed a phased response plan that considered guidance on community closings and prioritized the health of our employees, and we increased our sanitization efforts throughout our facility. But when COVID-19 began to hit our area hard and it was no longer safe to keep all of our employees in the office, our staff quickly and effectively transitioned to remote status. Luckily, since many of our staff members had been working from home occasionally for quite some time, we were prepared from a technology standpoint to make the switch.

I am proud to say that even with many of us at home, our productivity levels have remained as high as ever and our scheduled project work remains relatively unaffected. We're fortunate that most of our work can be done remotely, but for those efforts that require face-to-face contact, we've made do. We've shifted our in-person outreach efforts to virtual events, and the global geopolitical world has also shifted online.

We completed many projects on behalf of the community in 2020. I would like to specifically highlight the launch of our new Internet Routing Registry (IRR) in June. This project was a long time in the making, and even though a lot of the work had to be done while our team was 100% remote, we met our deadline and received a great deal of positive feedback from the community.

More information about other service and software improvements this past year can be found at: <https://www.arin.net/reference/materials/software/>

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We also completed final actions on 14 suggestions from the community in 2020:

- 2020.17: Provide Transfer Source Pre-Qualification Service
- 2020.14: Send Invoices Earlier
- 2019.19: Billing Reminders for 4X and 5X Category
- 2017.22: Disable OT&E API keys (RegRWS) in Production Systems
- 2017.24: Allow NET objects of Simple Reassignments to hold POC objects
- 2017.25: Allow Changes to Org Handle in a Detailed Reassignment Without Requiring Deletion
- 2014.30: Reflect Returns in IRR Data
- 2019.2: Eliminate or Increase Revoked ROA per OrgID
- 2015.3: Tie Route Objects in IRR to Netblocks of RIR Database
- 2020.4: Web GUI for ARIN IRR
- 2018.16: Add delete/list ROAs Endpoints to the RESTful API (2019.1: Add Ability to Delete ROAs using API was closed as a result of the same work)
- 2020.3: Support RFC 8183
- 2017.8: Chat button for ARIN.NET website
- 2019.23: Smart Cursor in Multi-factor Authentication

More information about ARIN's Consultation and Suggestion Process (ACSP) is available at:
<https://www.arin.net/acsp>

As I write this update in early 2021, our staff continues to work from their remote locations, with the option to occasionally come into the office as necessary and with management's approval and strict adherence to mask use and physical distancing practices. Even as we continue to navigate a world that's not what it was this time a year ago, we've adapted and we're still as committed as ever to serving our community members. We look forward to continuing our service to you and executing on the ARIN Strategic Plan in the coming year.



JOHN SWEETING

This past year was the first full year for the Office of the Chief Customer Officer (CCO). As our team has taken shape over the past year, our goal continues to be maximizing the value of our services by focusing on interactions with members, customers, and the community to effectively identify opportunities for improvements. In fact, one of our largest-scale tasks this past year was establishing an internal catalog of all the services ARIN provides. Having this catalog in place allows us to more effectively analyze the efficacy of our current processes, and it informs our work going forward.

The Office of the CCO innovated service delivery within ARIN this past year by providing a number of critical internal functions. This included championing data-driven analysis while assessing our processes and services to improve service delivery. Additionally, we provided in-depth financial data analysis and modeling support, which included analysis and modeling of the ARIN Fee Schedule.

Our other accomplishments this year include:

- Administering the 2020 Customer Satisfaction Survey
- Managing the annual ARIN Election process while exceeding voter quorum
- Presiding over the quarterly rights extinguishment meetings and subsequent IPv4 waitlist distributions
- Processing, triaging, and researching community fraud reports and supporting the resulting processes in partnership with the ARIN legal team
- Overseeing and managing the successful deployment of the new ARIN Online Internet Routing Registry (IRR) service

Organizationally, 2020 saw the Communications Department move under the CCO, and Joe Westover was brought on as Product Manager. Our recent organizational changes will provide the CCO Office with a constant stream of customer feedback and communication. Along with a greater emphasis on internal operational processes, this will ensure the voice of the customer is heard and included in service improvement initiatives and prioritization.

Providing exceptional value to all ARIN customers is the top priority for us and we look forward to continuous improvement and exceeding the expectations of our community in the upcoming year.



BRIAN KIRK

ARIN's Financial Services Department (FSD) is responsible for accounts receivable, accounts payable, budgeting, general accounting, customer contracts, and financial reporting. Even though 2020 was anything but predictable, our steadfast commitment to our customers remained intact as we all worked remotely.

In a year filled with change, we undertook a number of projects of varying scope and size. We completed:

- The 2019 audit, including implementation of new revenue recognition standards
- Our 2019 Form 990 and filed it
- A Risk Assessment project with consulting firm, RSM
- An Investment Consultant Request for Proposal (RFP)
- An Audit Services RFP
- An accounting software upgrade
- Cleanup of FSD fixed asset inventory

Some key statistics that summarize our year include:

- Processed >27,000 customer invoices for more than \$21,150,000
- Processed cash receipt transactions totaling more than \$20,400,000
- Processed almost 1,100 disbursements totaling more than \$8,000,000
- Answered >2,850 customer calls totaling 10,230 minutes

At the end of the year, we wished Val Winkelman much happiness as she left ARIN after 16 years with the organization for her well-earned retirement. She will be greatly missed at ARIN, and I appreciate her guidance as I came up to speed as ARIN's CFO.

The FSD group continues to receive thousands of emails, phone calls, and tickets each year. As we head into 2021, our department is still dedicated to providing our customers with the best service possible. Reach out to us anytime to let us know if there is anything we can do to help you.



MARK KOSTERS

2020 was another productive year for the Engineering Department. Like the rest of ARIN in March, our team headed home to work remotely. We built up our internal infrastructure to handle the daily remote connectivity and added more ways to create a no-touch environment with the staff. Despite not having an office in which to work together on engineering tasks, we were able to keep to our schedule as planned.

Our first real test this year was sticking to our initial goal of launching a new IRR in June. On 10 June, we launched an authenticated IRR system that bootstrapped data from ARIN's initial IRR. We renamed ARIN's initial IRR to ARIN-NONAUTH for all data that was not migrated to the new system. We also created a web interface to support the new authenticated IRR, and moved our public-facing IRR servers to IRRdv4.

Some of our other accomplishments this past year include:

- Focused on removing tech debt by upgrading software systems - most notably upgrading the RPKI HSM from IBM 4765s that were end of service to IBM 4767s.
- We performed numerous upgrades to other IT and hardware systems.
- Made numerous performance improvements to directory services infrastructure (Whois, Whois-RWS, and RDAP)
- Added a service level reporting feature to www.arin.net
- Added chat functionality to the ARIN website
- To support policy changes, updated ARIN Online so that Points of Contact (POCs) and Organizations can no longer be created when performing a Detailed Reassignment or Reallocation
- Continued the movement away from RHV to OVIRT to save support costs with no loss of availability for our locally-managed virtualization services.
- Separated ARIN's RDAP bootstrap service into an independent entity along with open-sourcing the codebase
- Added internal support for adding cloud-based support for RDAP-bootstrap service as well as RPKI's RRDP service
- Oversaw the technical aspects of the virtual public-facing services associated with the biannual Public Policy and Members Meetings

To give another quick snapshot of our year, we closed two suggestions that involved engineering effort and we had 32 releases of ARIN Online over the course of 2020. Compared to 2019 when we had 19 releases of ARIN Online, we were delighted to keep pace with the precedent we'd set in pre-COVID times.

2021 promises to be another busy year for our team. We are looking forward to the challenges ahead and serving you as best as we can. Keep your feedback and ideas coming!

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%**

BILLING SCHEDULE COMMITMENT

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%**

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 **99.5%**

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 **2.8 DAYS**

COMMUNICATIONS

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

100%

Publish ARIN's 2019 Annual Report by the first Public Policy and Members Meeting of the year

PUBLISHED ON
22 MAY 2020

Conduct two Public Policy and Members Meetings each year

100%

Publish meeting minutes and presentations online within 10 business days of meeting conclusion

100%

In support of the Office of the Chief Customer Officer, conduct annual elections for the ARIN Board of Trustees, ARIN Advisory Council, and the Number Resource Organization Number Council (NRO NC)

100%

ENGINEERING

Auto Reply for Registration	100%
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Auto Reply for Routing Registry	99.1%
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DNS Reverse Master Zones	100%
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DNS Provided by ARIN	100%
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FTP Data	100%
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RESTful (Reg-RWS) Services	100%
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Routing Registry	99.1%
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RWhois	100%
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Web Whois	100%
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Webserver (http)	100%
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Webserver (https)	100%
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ARIN Online	100%
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RPKI Repository Service	99.3%
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RPKI Provisioning	100%
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Whois	100%
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Whois-RWS	100%
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RDAP	100%
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LISA LIEBEL
Director

2020 brought significant changes to every aspect of life and business due to the world-wide pandemic. During this difficult time, the Registration Services Department (RSD) was determined to continue to provide quality support to our customers, and we continued to provide support using all the traditional contact methods our customers have grown accustomed to, including ARIN Online tickets, email, and telephone during normal business hours.

In fact, we were so determined to provide as much support as possible during the pandemic that we proudly began offering chat services to customers who are logged in to their ARIN Online accounts. This new offering provided an additional vehicle for customers to correspond with us, and so far, we have been thrilled that this service has been well-received by our customers.

The new chat service went live on 6 April and brought an increase in customer contacts by almost 50% when compared to phone call volume. From 6 April through the end of 2020, we completed 2,611 chat conversations from 1,566 different visitors. Our completed phone call volume for the same period was 5,402 calls with an average talk time of seven minutes and 30 seconds and an average queue time of only 18 seconds. We found that the customer contacts via the chat service did not reduce the call or ticket volume but effectively increased the overall contact volume from our customers. We are pleased that we are able to be in contact with so many more customers and look forward to chatting with you in the future.

During 2020, we continued to receive IPv4 addresses back via reclamation and voluntary returns which enabled us to fill IPv4 Waiting List requests during our quarterly distributions. In 2020, there were 1,001 requests added to the waiting list and all were filled either from the waiting list or through the transfer process.

In addition to the IPv4 Waiting List requests, RSD received the following tickets:

- An additional 1,376 IPv4 requests which have either been abandoned/withdrawn or are still in progress
- 1,076 requests for IPv6 addresses
- 1,727 requests for Autonomous System Numbers
- 3,592 requests for Transfers (Pre-Approval and NRPM 8.2/8.3/8.4)
- Over 10,000 other ticketed requests to the help desk

ARIN deployed a new and improved Internet Routing Registry (IRR) in June 2020. This new and vastly improved IRR brought in a whole new layer of support opportunities for RSD. We are seeing a more technical need from our customers focused on IRR as well as Resource Public Key Infrastructure (RPKI). We found that we required a heavy focus on the technical requirements for routing security and that would require an additional staff member versed in those technologies. In light of this need, we are very pleased to say that we have hired a Technical Support Specialist, Nathan Newman.

Additionally, this past year has shown us that there is a fundamental need for hands-on oversight of the day-to-day operations for any team to be successful. To satisfy that requirement, we are pleased to announce that Reese Radcliffe has been hired as our Registration Services Manager and will provide the daily care and feeding of the RSD team.

Our team remains as eager as ever to assist you in your Internet number resource needs. We look forward to a productive 2021.



ERIN ALLIGOOD
Senior Director

ARIN's Human Resources and Administration Department had a challenging, yet successful year in 2020. The team's work was primarily focused on COVID-related efforts for ARIN staff and our facility.

After historically being an "in-person" company, ARIN employees transitioned successfully to working in a full-time remote capacity as a result of the COVID-19 pandemic in March 2020. While a remote workplace has its challenges, our employees were able to maintain the same excellent level of service to our members and community that we always have. Throughout the pandemic, ARIN has also made a concerted effort to maintain an ongoing communication plan to its staff. This includes regularly-scheduled full staff meetings to provide any relevant updates on the current environment and share options available to the employees while working from home. We have also made time for a few fun company-wide events, such as a virtual holiday party and a pet-friendly happy hour, to ensure we all stay connected during this time apart. ARIN plans to maintain these touchpoints going forward into 2021 as we continue to work remotely.

Aside from our COVID-related efforts this past year, ARIN also established new positions in 2020 based on current and upcoming initiatives. This included a Senior Manager in the Office of the Chief Customer Officer (CCO) focusing on ARIN's services and product management. The Office of the CCO also plans to onboard a new Senior Product Owner of Routing Security in the coming year. In addition, ARIN added a Registration Services Manager and a Technical Support Specialist in Registration Services. ARIN also welcomed a CFO, Brian Kirk, to the organization in January 2020, along with a Controller and an Accounting Manager in the Financial Services Department.

As I take measure of how our workforce has grown this past year, I am reminded of just how outstanding our employee tenure continues to be. Even with a remote workforce, ARIN's current average employee tenure is still exceptional at an average of over seven years of service. We thank our employees for their ongoing dedication and service to the ARIN community and organization.

Last, but surely not least, in late 2020, ARIN celebrated the retirement of Val Winkelman, Director of Financial Services, after over 15 years of service. ARIN thanks Val for her outstanding service and wishes her well in her retirement.

ARIN also thanks Stephen M. Ryan for his service as ARIN's General Counsel and congratulates him on his recent retirement in late 2020. Though Steve will no longer be serving as ARIN's General Counsel, he will continue to provide legal consulting services to ARIN. In light of Steve's recent retirement, ARIN was pleased to select Michael Abejuela to serve as ARIN's General Counsel going forward.

The Human Resources and Administration team is looking forward to a healthy and productive 2021.



HOLLIS KARA
Director

2020 was going to be a year of transition for the newly reformed Communication Department. Some staff and functions that had previously been part of the Communications and Member Services Department had just moved to the Office of the Chief Customer Officer, and I started the year by reviewing the present and future needs of the group in order to determine what other changes were needed to support the wider organization and community. The first scheduled outreach events were held in February - ARIN on the Road in Memphis and San Antonio, and planning was well underway for a full schedule of in-person events when business travel was halted and we shifted to telework arrangements as part of our COVID-19 safety procedures.

While the team was working from home (and as of this writing, we still are), we continued to work to meet our department goals and objectives in slightly different ways. We conducted our first entirely virtual Public Policy and Members Meeting in June, and it was a great success. When we decided that ARIN 46 would also be a virtual meeting, we took lessons from that event to improve our fall meeting and successfully increase engagement and participation.

In addition to planning and producing two virtual meetings, we also hosted several webinars throughout the course of the year: IPv6 Address Planning Basics, Getting Started with IRR-Online at ARIN, and our Leadership Development Program. These three webinars were hosted a total of nine times with a total of nearly 700 participants in all. Additionally, these programs are available on-demand on [the ARIN website](#) where they continue to accumulate views.

In that same vein, in December, we launched a new customer virtual orientation called ARIN Optimized. This webinar is designed to help new customers better understand how to make the most of ARIN's tools and services.

For years we have worked directly with other industry groups to conduct in-person outreach. When this became impossible in 2020, we developed a virtual outreach program. Through this effort, we introduced many individuals to ARIN via customized webinars and helped at least two dozen organizations from four different membership organizations receive address space from the IPv4 Waiting List. We also were able to inform many smaller to medium-sized ISPs across our region about how to obtain address autonomy by receiving an allocation directly from ARIN.

The [Community Grant Program](#) successfully concluded for the 2019 recipient class and representatives from each of the projects completed a final report, presented at ARIN 47, and contributed guest blogs on project results. In October, eight new grants were awarded to the next class of projects, and we are excited to see the results of their work.

We wrapped up the year by making a few changes to the department structure. The role of External Relations Manager was created to oversee outreach, social media, and public relations. We also began reporting to the Chief Customer Officer, which is already improving our ability to collaborate on all the great plans we have in store to keep our customer-focus going strong in 2021 and beyond.



ANNE-RACHEL INNÉ
Senior Vice President

In 2020, the composition of the Government Affairs Department (GAD) was updated to include trust and public safety matters as well as our Caribbean outreach work. In summary, GAD now oversees a variety of special programs, including developing and overseeing outreach and support to the law enforcement community; targeted outreach to cultivate and maintain relationships with governments and Internet industry groups in the Caribbean portion of the ARIN region; and maintaining external relationships with governments and key intergovernmental organizations for ARIN.

Like many others, our department has worked online since March 2020 as the COVID-19 pandemic began to disrupt every aspect of life. We are elated that the Internet has not only been resilient and carried every bit of the huge load and burden put on it, but it has also “saved the day” for many organizations and governments around the world.

On the one hand, going online has highlighted an entrenched (and unfortunate) digital divide between the connected and the unconnected, globally. It has also highlighted how an essential, critical infrastructure like the Internet can be not only used, but regrettably, abused. As a consequence, cyber governance and the importance of securing the digital world have become hot topics of discussion at the government-level and the UN-level, in addition to discussions on the capacity of our digital infrastructure to enhance social and economic resilience in the face of pandemics. Our team was pleased to participate in these discussions in many different forums, including trainings, webinars, panels, and much more.

At the International Telecommunications Union (ITU), GAD is now involved in many more study groups in the two sectors that ARIN is a member of: Standardization (ITU-T) and Development (ITU-D). The team was an active participant in meetings of study groups, advisory groups, the ITU Council, the World Telecommunications Standardization Assembly (WTSA, though now likely postponed to 2022), and the 2021 World Telecommunications Development Conference (WTDC).

Regarding our work in the Caribbean, we adapted quickly to online work and organized several trainings/webinars in the Caribbean region around Internet and network infrastructure, security, access policy, and a four-part webinar series presented jointly with the Caribbean Telecommunications Union, titled “Accelerating 21st Century Government in the Caribbean.” These webinars have helped us make even more inroads into a region comprised of Small Islands Developing States (SIDS) which are looking at COVID-19 as a window of opportunity to drive digital transformation in sectors which have not promoted it in previous decades.

In addition to all of the above, the GAD team participated in several meetings at sister RIRs, ICANN, US and global IGF, international/regional and national law enforcement agencies, IETF meetings, and several other organizations and think tanks whose work intersects our own on international Internet public policies.

In closing, in 2020, the physical/geopolitical and online worlds began to look much more alike, and we were ready to jump into action. The new GAD team is proof that ARIN is staying agile and is able to forecast and often help navigate the effects of new international Internet public policies that could impact its work in support of the operation and growth of the Internet.

**Pacific Telecommunications Council
Annual Conference | PTC '20**

19 January

Speaker: John Curran

Panel: Mobile Edge of the Internet Rapidly
Moving to IPv6 in Preparation for 5G and IoT
Honolulu, HI

NANOG 78

10-12 February

San Francisco, CA, USA

APNIC 49 with APRICOT

12-21 February

Melbourne, Australia

ARIN on the Road: Memphis*

25 February

Memphis, TN, USA

ARIN on the Road: San Antonio*

27 February

San Antonio, TX, USA

**CanWISP 2020 Conference & General
Meeting**

2-4 March

Ottawa, Ontario, Canada

ICANN 67

7-12 March

Online Meeting

IETF 107

22-27 March

Online Meeting

**COVID-19 and the Caribbean Internet Webinar:
Managing Virtual Offices and Remote Workers
Part I***

9 April

Online Webinar

**COVID-19 and the Caribbean Internet Webinar:
Managing Virtual Offices and Remote Workers
Part II***

17 April

Online Webinar

**COVID-19 and the Caribbean Internet Webinar:
Increasing Local Network Connectivity and
Capacity Part I: Role of IXPs in Expanding Local
Network Capacity***

24 April

Online Webinar

**COVID-19 and the Caribbean Internet Webinar:
Increasing Local Network Connectivity and
Capacity Part II: Growing Local Traffic - Content,
Connections, and Collaboration***

1 May

Online Webinar

LACNIC 33

4-8 May

Online Meeting

**COVID-19 and the Caribbean Internet Webinar:
Securing Network Infrastructure Part I -
Defending Attacks, Securing Systems***

8 May

Online Webinar

RIPE 80

12-14 May

Online Meeting

**COVID-19 and the Caribbean Internet
Webinar: Securing Network
Infrastructure Part II - Protecting Users
and User Data***

15 May

Online Webinar

**COVID-19 and the Caribbean Internet
Webinar: ASNs & V6 Part I - Getting the
Most from your Number Resources I***

22 May

Online Webinar

**COVID-19 and the Caribbean Internet
Webinar: ASNs & V6 Part II - Getting the
Most from your Number Resources II***

29 May

Online Webinar

NANOG 79

1-3 June

Online Meeting

**COVID-19 and the Caribbean Internet
Webinar: Network Resilience Part I -
Disaster Mitigation & Recovery
Planning***

5 June 2020

Online Webinar

**COVID-19 and the Caribbean Internet
Webinar: Network Resilience Part II – Disaster
Mitigation & Recovery Planning***

12 June 2020
Online Webinar

ARIN 45*

16-17 June
Online Meeting

ICANN 68

22-25 June
Online Meeting

**ARIN-CTU Webinar Series: 21st Century
Government, Public Sector and Policy Issues***

9 July
Online Webinar

**ARIN-CTU Webinar Series: Local IXPs – No
Longer an Option, Now a Caribbean
Imperative***

16 July
Online Webinar

IGF USA

22-23 July
Online Meeting

**ARIN-CTU Webinar Series: Are We
Succeeding? Measuring Caribbean Digital
Transformation – a Data Driven Approach***

23 July
Online Webinar

IETF 108

27-31 July
Online Meeting

**ARIN-CTU Webinar Series: Network Security
for Public Safety in a 21st Century
Government Environment***

30 July
Online Webinar

APNIC 50

8-10 September
Online Meeting

LACNIC 34

2-9 October
Online Meeting

IGF 2020

9-17 October
Online Meeting

ICANN 69

13-15 & 19-22 October
Online Meeting

ARIN 46*

14-15 & 23 October
Online Meeting

NANOG 80

19-21 October
Online Meeting

RIPE 81

27-30 October
Online Meeting

CaribNOG 20

11 November
Speaker: Lisa Liedel
Session: ARIN Update
Online Meeting

IETF 109

16-20 November
Online Meeting

Connections 2020

7-11 December
Includes a “Special Video Message” from John
Curran
Online Conference

NTCA 2020 Cybersecurity Summit

10 December
Speaker: John Curran
Session: Shift to IPv6
Online Conference

IPv6 Address Planning Basics - Webinar

Presenter: Jon Worley, Senior Technology Architect, ARIN

Dates: 17 December 2019

9 January 2020

14 January 2020

10 March 2020

7 April 2020

12 May 2020

Total Attendance: 322

Leadership Development Program - Webinar

Presenters: Leslie Nobile, Senior Director, Trust and Public Safety, ARIN
Paul Andersen, Chair, ARIN Board of Trustees
Leif Sawyer, Vice Chair, ARIN Advisory Council

Wendy Leedy, Community Engagement Specialist, ARIN

Alison Wood, ARIN Advisory Council

Dates: 14 May 2020

28 May 2020

Total Attendance: 31

Get IPv4 Directly from ARIN ASAP with the Next Waiting List Distribution - Webinar

Presenters: Jon Worley, Senior Technology Architect, ARIN

John Sweeting, Chief Customer Officer, ARIN

Dates: 10 September 2020 - WISPA

15 September 2020 - Internet2

16 September 2020 - CanWISP

17 September 2020 - CCSA

Total Attendance: 109

Getting to Know IRR-Online at ARIN - Webinar

Presenter: Jon Worley, Senior Technology Architect, ARIN

Date: 18 August 2020

Total Attendance: 122

ARIN Optimized - Webinar

Presenters: Jon Worley, Senior Technology Architect, ARIN

John Sweeting, Chief Customer Officer, ARIN

Hollis Kara, Director of Communications, ARIN

Amanda Gauldin, Community Engagement Coordinator, ARIN

Dates: 1 December 2020

8 December 2020

15 December 2020

Total Attendance: 65

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 2020, 14 proposals were submitted to policy@arin.net. Two were classified as editorial updates and implemented in September. Two were withdrawn by the author. The remaining 10 were advanced to Draft Policies and discussed by the community on the Public Policy Mailing List. Five were promoted to Recommended Draft Policies as a result of community discussions. Four of those Recommended Draft Policies were subsequently sent to Last Call, and three were then submitted for Board of Trustees review in December of 2020.

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

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

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 2020, due to the COVID-19 pandemic, ARIN's two biannual PPMMs were held virtually. View the reports for each meeting:



<https://www.arin.net/ARIN45>



<https://www.arin.net/ARIN46>

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

In 2020, the AC consisted 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. In 2020, due to COVID-19, the AC only met in-person once in February, and met via teleconference the rest of the year. View meeting minutes at <https://www.arin.net/about/welcome/ac/meetings/>

2020 MEMBERS

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



2020 ELECTION RESULTS

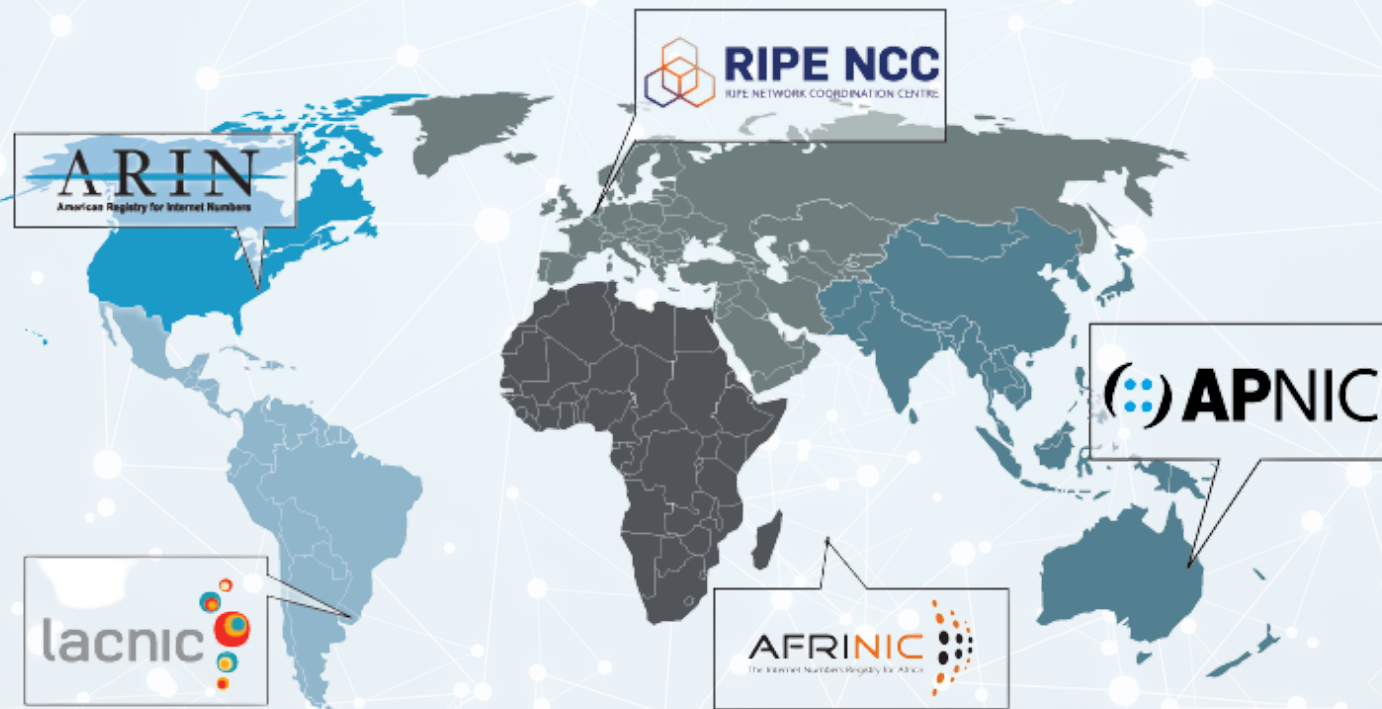
In October 2020, Andrew Dul, Anita Nikolich, Leif Sawyer, and Chris Tacit were re-elected and Matthew Wilder was elected to serve three-year terms on the AC beginning 1 January 2021. Read ARIN's election guidelines at <https://www.arin.net/participate/oversight/elections/processes/>

ARIN would like to recognize outgoing AC member Chris Woodfield. Chris served on the Advisory Council for four years, first being elected to an interim one-year term in 2016 and then being elected to a three-year term in 2017. ARIN sincerely thanks him for his dedication and service.

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.

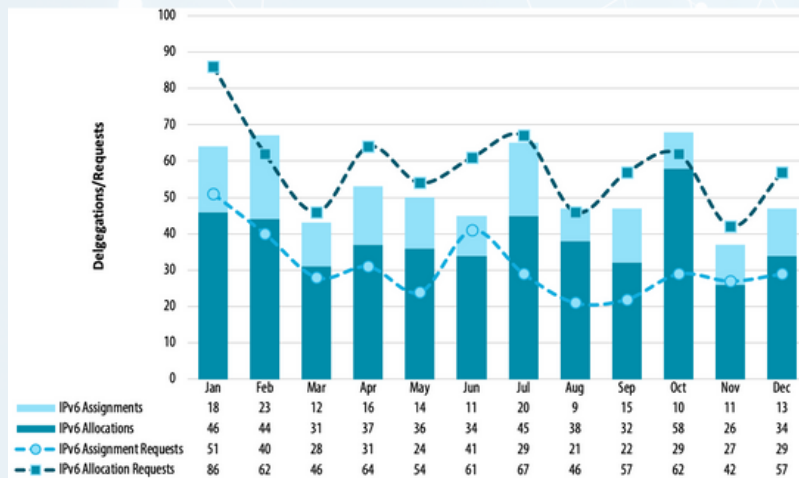
The NRO Number Council (NRO NC) fulfills the role of the Internet Corporation of Assigned Names and Numbers (ICANN) Address Supporting Organization Address Council (ASO AC) (<https://aso.icann.org>), providing advice to the Board of ICANN on global Internet number resource policy, in conjunction with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

There are three NRO NC representatives from each RIR region. The members from the ARIN region for 2020 were Kevin Blumberg, Martin Hannigan, and Louie Lee. We thank all of them for their service and commitment to the global Internet community.

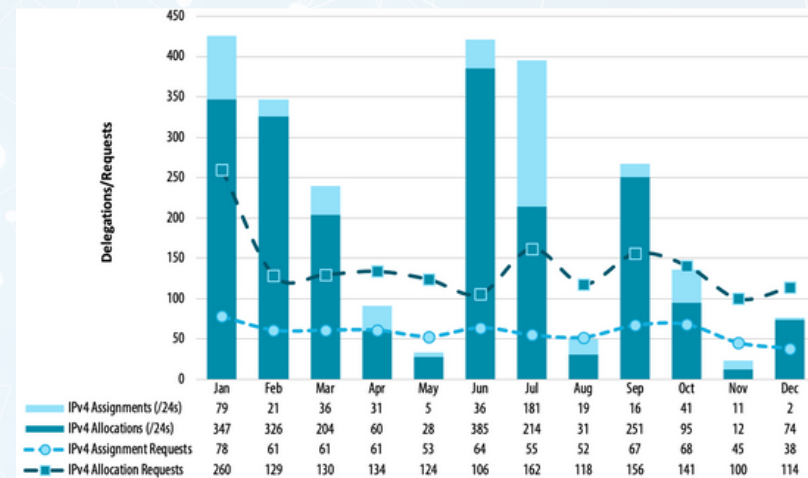


For more statistical reports, visit <https://www.arin.net/reference/research/statistics/>

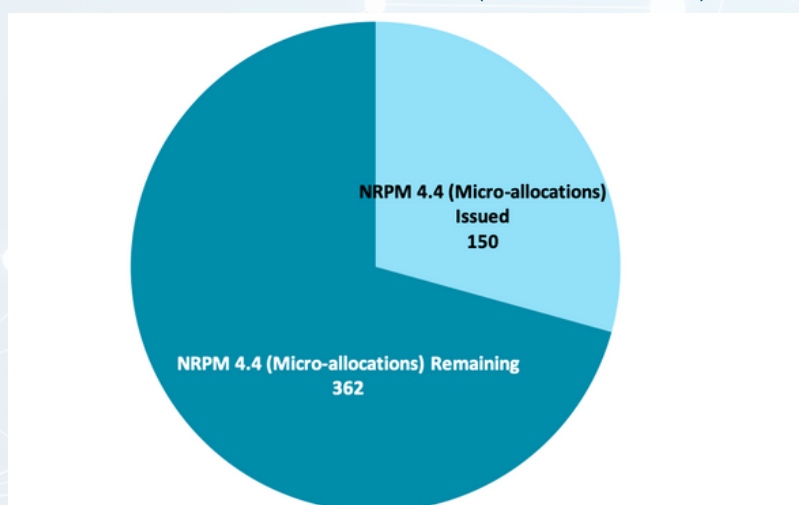
2020 IPv6 Address Space Issued and Requested (by category)



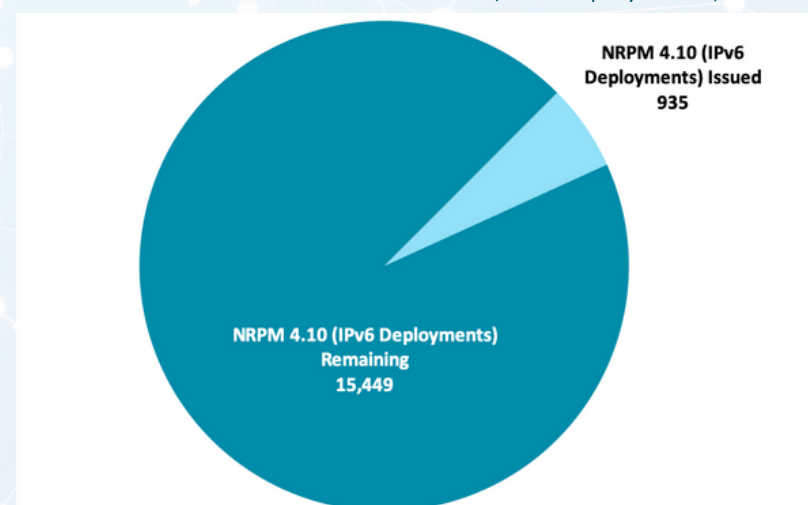
2020 IPv4 Address Space Issued and Requested (by category)



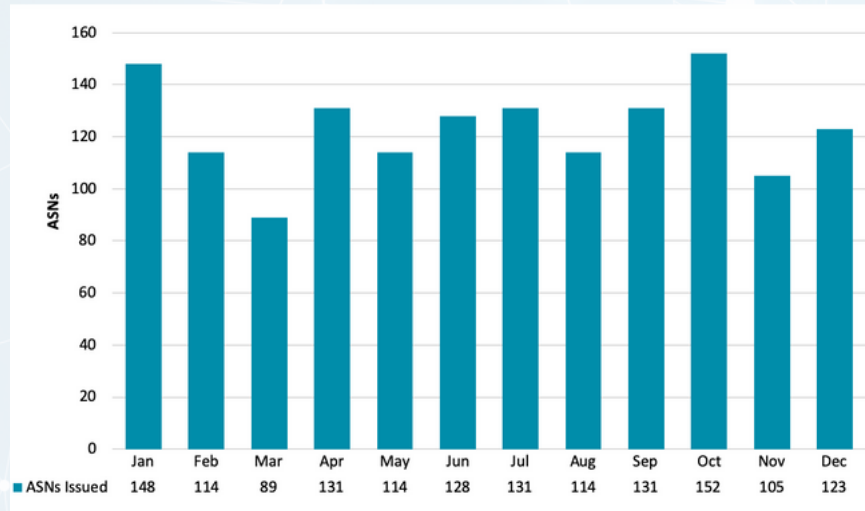
IPv4 Reserved Pool Status - NRPM 4.4 (Micro-allocations)



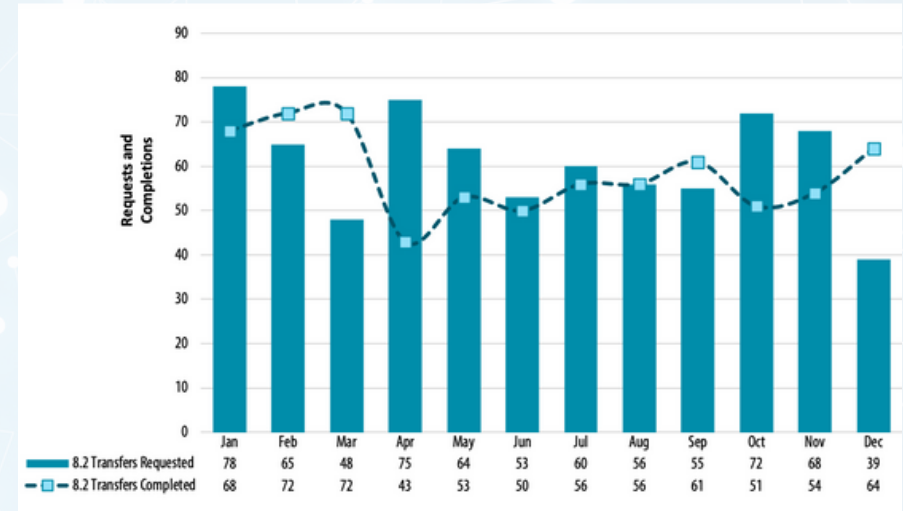
IPv4 Reserved Pool Status - NRPM 4.10 (IPv6 Deployments)



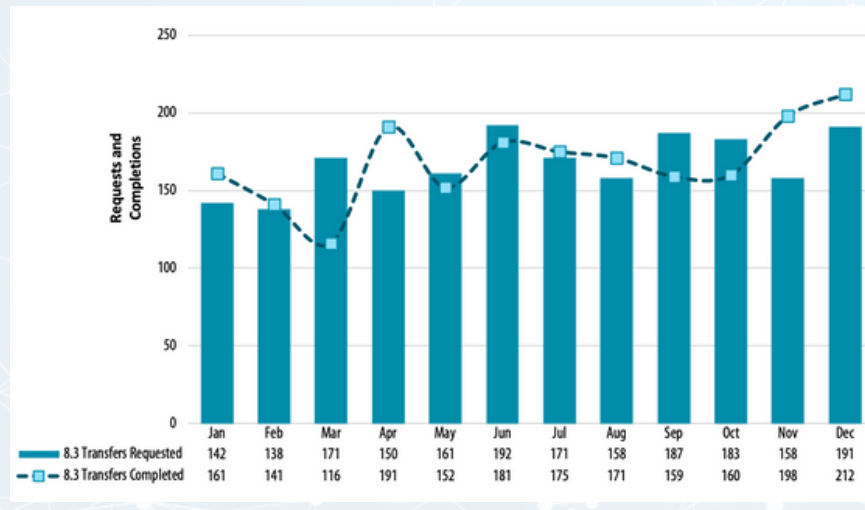
2020 Autonomous System Numbers Issued By ARIN



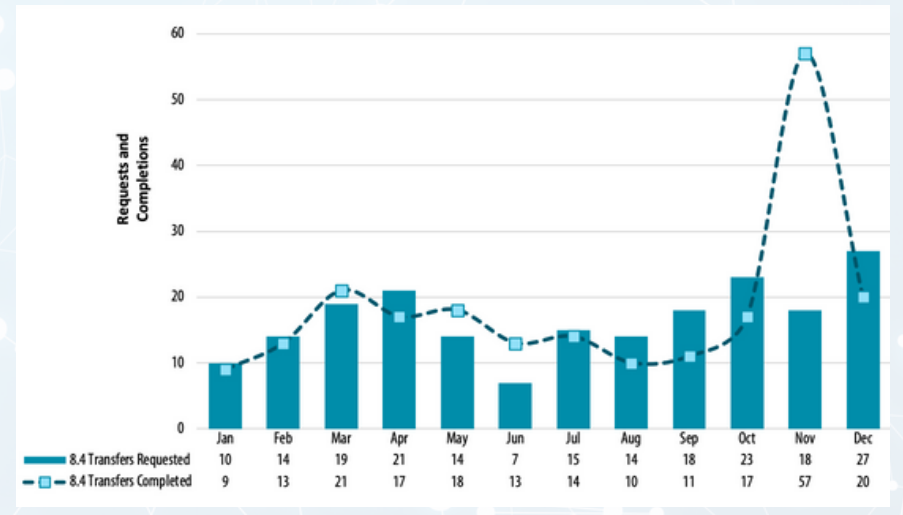
2020 8.2 Transfers Requested and Completed



2020 8.3 Transfers Requested and Completed

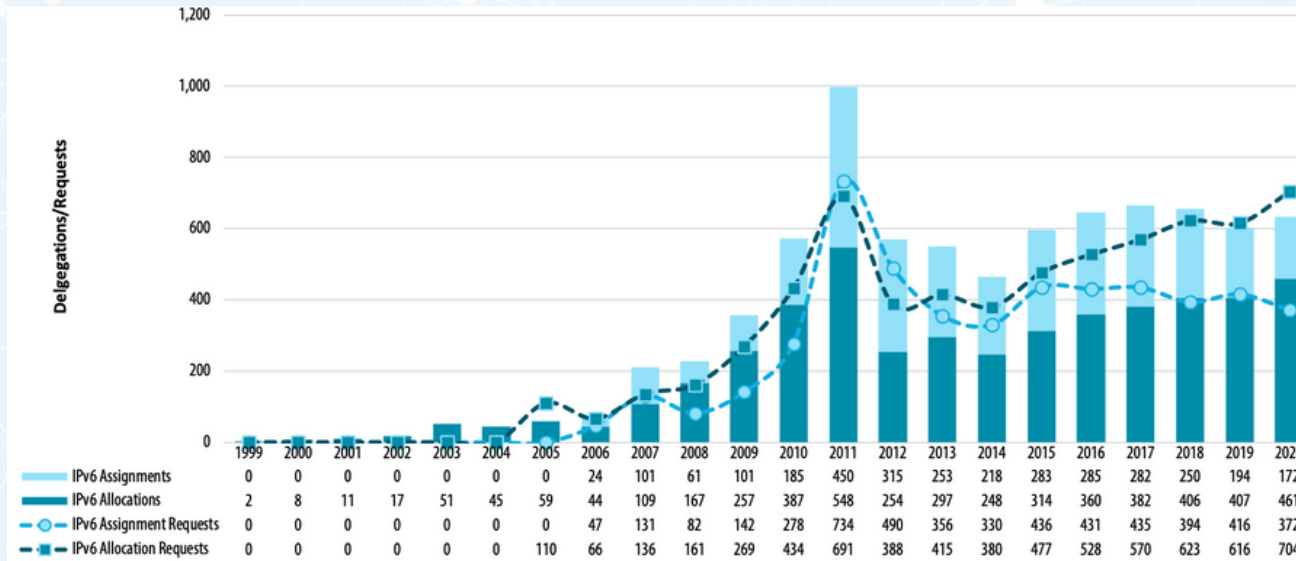


2020 8.4 Transfers Requested and Completed

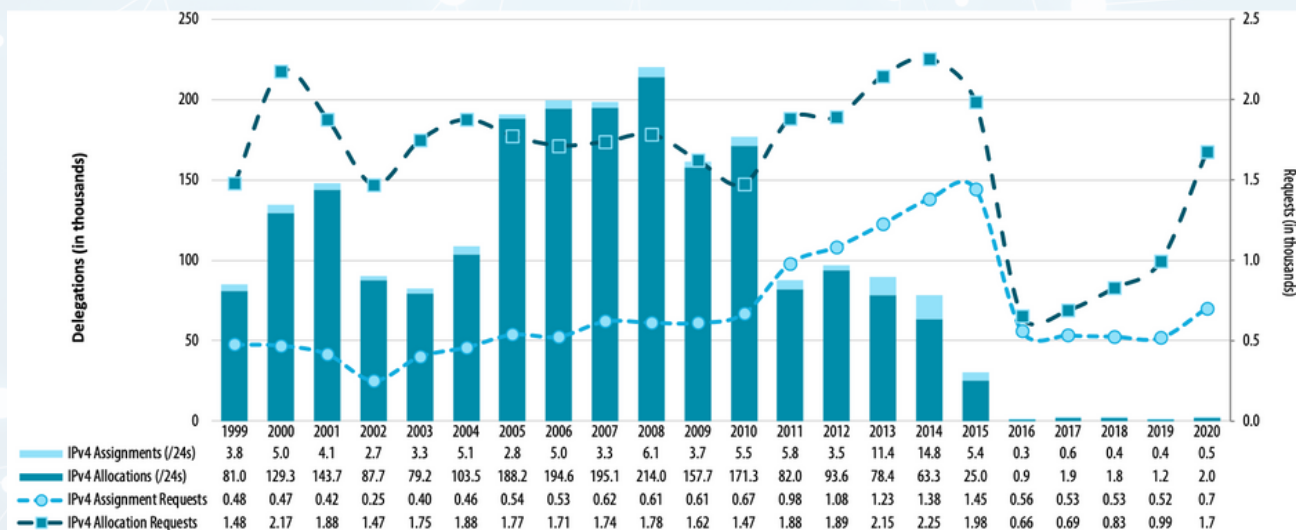


HISTORICAL REPORTS

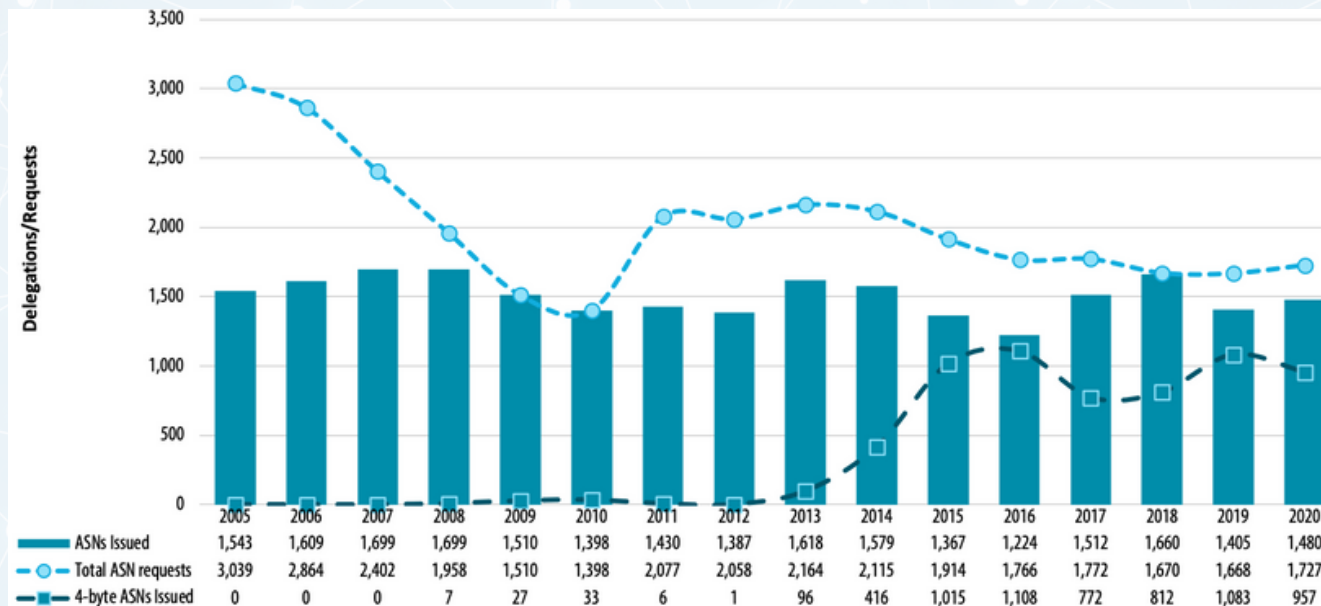
ARIN IPv6 Address Space Issued and Requested (by category) 1999-2020



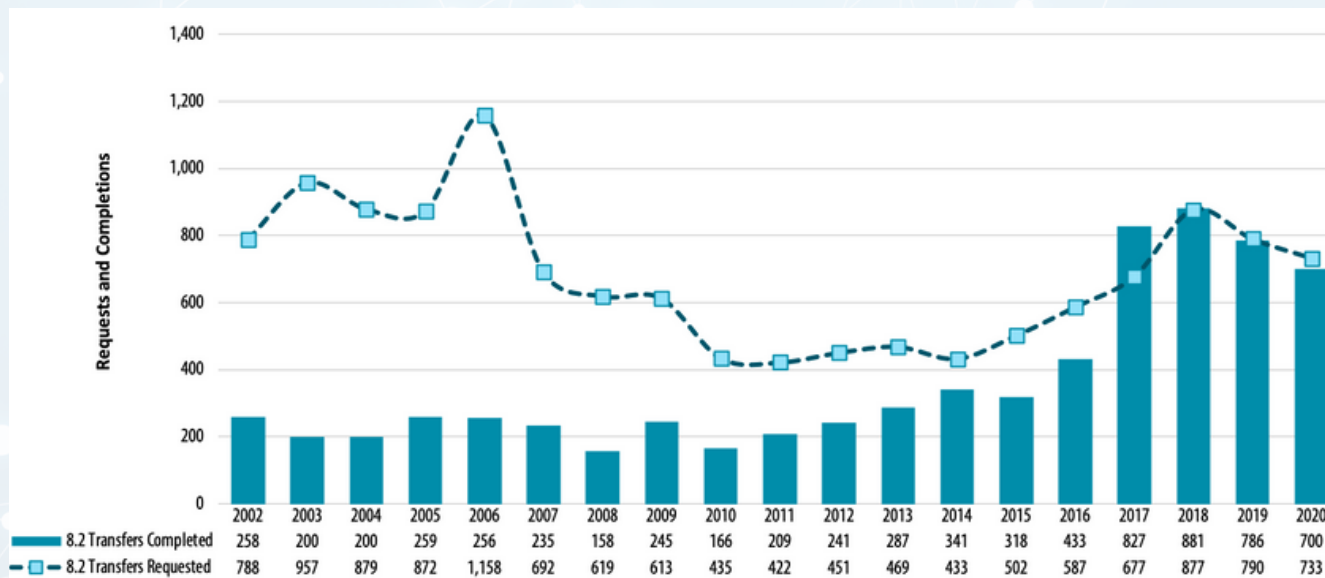
ARIN IPv4 Address Space Issued and Requested 1999-2020



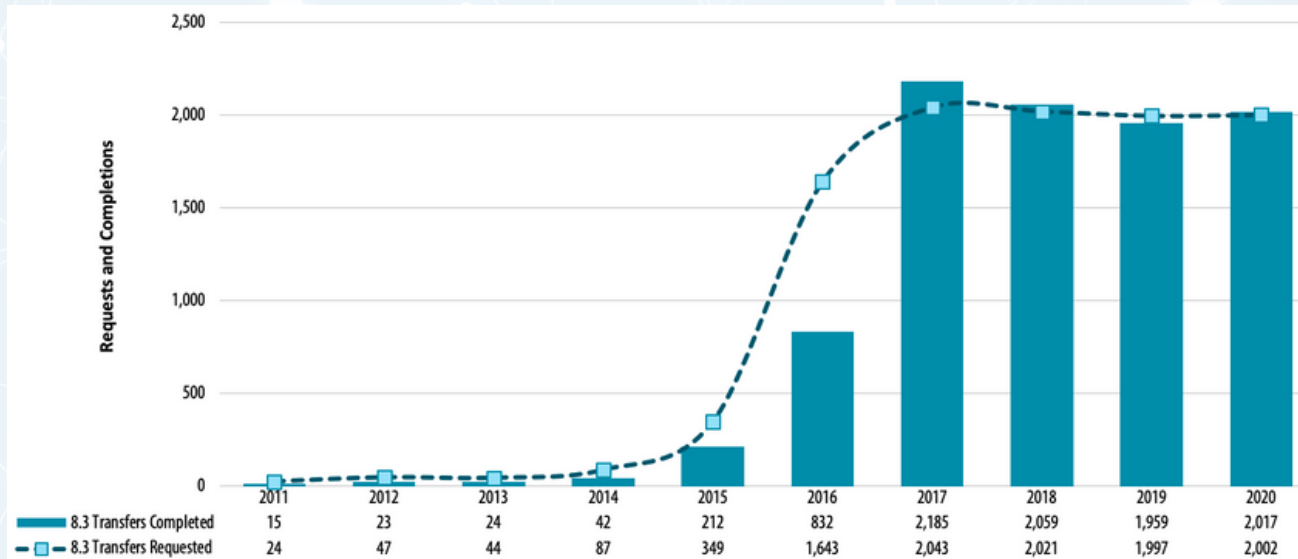
ARIN ASNs Requested and Issued 2005-2020



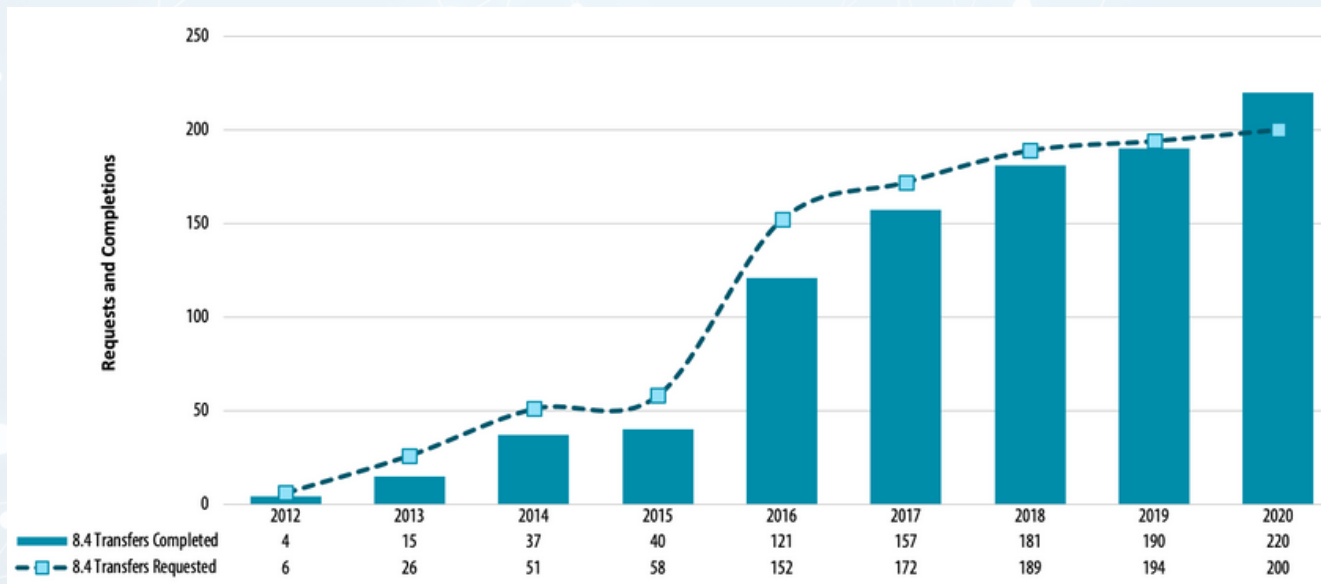
Classic or 8.2 Transfers Requested and Completed 2002-2020



8.3 Transfers Requested and Completed 2011-2020



8.4 Transfers Requested and Completed 2012-2020



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 2020 will be made available for community review on ARIN's public website following the conclusion of our audit.