



**ORGANIZACIÓN DE LOS ESTADOS AMERICANOS
ORGANIZATION OF AMERICAN STATES**

**Comisión Interamericana de Telecomunicaciones
Inter-American Telecommunication Commission**

**42 MEETING OF PERMANENT CONSULTATIVE
COMMITTEE I: TELECOMMUNICATIONS/
INFORMATION AND COMMUNICATION
TECHNOLOGIES
April 24 to 28, 2023
Punta Cana, Dominican Republic**

**OEA/Ser.L/XVII.4.1.42
CCP.I-TIC/doc. 5290/23
31 March 2023
Original: English**

**ARIN INFORMATIONAL UPDATE TO CITEL MEMBER
STATES AND ASSOCIATE MEMBERS**

(Item on the Agenda: 4.2.2)

**(Document submitted by The American Registry for Internet
Numbers, ARIN)**

Impact on the sector:

This update is intended to provide participants with important ARIN related information for consideration in their ICTs planning and execution efforts. CITEL participants may want to consider the items in this update and note ARIN is available to assist as needed.

Executive Summary:

This informational contribution provides CITEL Member states and Associate Members with ARIN related updates relevant to ICT planning and execution efforts. This contribution will address the topics of IPv6, Internet Exchange Points (IXPs), Resource Public Key Infrastructure (RPKI)/Secure Routing, and ARIN's Grant and Fellowship programs. Participants are invited to consider and discuss this contribution.

ARIN wishes to thank CITEL, Member States and Associate Members for the opportunity to provide an update on matters relevant to the continuing development of ICTs throughout the region

Background

The American Registry for Internet Numbers (ARIN) is responsible for the management and distribution of Internet number resources such as Internet Protocol (IP) addresses and Autonomous System Numbers (ASNs) within its service region¹. ARIN provides services to over 39,000 customers and has approximately 17,000 members. Throughout the service region customers include federal, state, and municipal governments and related agencies, commercial for-profit and non-profit organizations, and educational and health care institutions, and public safety organizations as examples. A few of the many services ARIN offers include ARIN reverse DNS (Domain Name Services), Resource Public Key Infrastructure (RPKI), Whois and WhoWas registration record availability, an authenticated Internet Routing Registry, and facilitation of an inclusive, bottoms-up policy development process. ARIN is one of five Regional Internet Registries (RIR) that cooperate in the provision of global Internet Number Registry Services. Specific to Member States and Associate Members, ARIN coordinates with LACNIC, Caribbean Telecommunications Union (CTU), Caribbean Network Operators Group (CaribNOG), North American Network Operators Group (NANOG), CARICOM, CANTO, as well as public safety and law enforcement agencies by providing speakers, meeting support, and informational outreach.

ARIN coordinates the development of fair, impartial, and technically sound policies by the Internet community for the management of number resources. These policies establish the criteria for assignment of number resources and related Internet number administration. Additional information about ARIN can be found at www.arin.net.

IPv6

ARIN continues to both advocate for, and support, the deployment of IPv6 as the protocol essential to the future growth of the Internet. Google reports that 40% of global Internet traffic connected to its services are over IPv6². Since deployment is well underway throughout the world, it is vital to have Internet services and applications available to the entire Internet, and this means both via IPv4 and IPv6. For those Member States and Associate Members that already have IPv4 address space from ARIN, receiving IPv6 address space from ARIN will most likely be at no additional cost. In addition, through one of ARIN's community developed policies, 4.10 Dedicated IPv4 Block to Facilitate IPv6 Deployment³, organizations can obtain additional IPv4 address space to support their deployment of IPv6. It's worth noting that networks vary in size, even with IPv6. While IPv6 address space is vast, it is still a finite resource and ARIN offers IPv6 network planning assistance free of charge to assist organizations in efficient use.

Internet Exchange Points (IXPs)

IXPs help keep traffic local to the extent possible, and therefore reduce dependency on backhaul and associated latency and networking costs. Additional benefits include network resiliency and efficiency. Member States and Associate Members that have not already considered Internet Exchange Point (IXP) should consider the merits of their deployment in their geography. In a similar manner of supporting IPv6

¹ ARIN serves Anguilla, Antarctica, Antigua and Barbuda, Barbados, Bermuda, Bouvet Island, Canada, Cayman Islands, Dominica, Grenada, Guadeloupe, Heard and McDonald Islands, Jamaica, Martinique, Monserrat, Puerto Rico, Saint Barthelemy, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Saint Martin, The Bahamas, Turks and Caicos, Virgin Islands (British and U.S.) and the United States.

² Google IPv6 Adoption Statistics, <https://www.google.com/intl/en/ipv6/statistics.html>, 22 February 2023

³ ARIN Number Resource Policy Manual, 4.10 Dedicated IPv4 Block to Facilitate IPv6 Deployment, <https://www.arin.net/participate/policy/nrpm/#4-10-dedicated-ipv4-block-to-facilitate-ipv6-deployment>, 22 February 2023

deployment, ARIN Policy 4.4 Micro-Allocation Policy⁴ provides IPv4 address space in support of the deployment of IXPs.

RPKI/Secure Routing

In February 2022 the Federal Communications Commission (FCC) issued a Notice of Inquiry⁵ seeking comments about what measures the FCC should take to protect communications networks from vulnerabilities posed by Border Gateway Protocol (BGP). Given its role in providing critical infrastructure and secure routing tools such as RPKI, ARIN provided several informational responses to the FCC. Additionally, with regard to any rulemaking by the FCC on utilization of RPKI for securing Internet routing, ARIN noted that it has not brought the question of regulatory involvement in this area to its community, and therefore it would not be appropriate for ARIN to represent a particular position. ARIN respectfully recommended that the FCC duly weigh any input received from those organization that would be most directly affected by any such rulemaking, that is, Internet Service Providers and Network Operators.

In review of all responses provided to the FCC, there was a perception that ARIN's Registration Services Agreement (RSA) and Trust Anchor Locator (TAL) management could be barriers to some organizations in adopting RPKI. It is worth noting that ARIN implemented several relevant changes in 2022 to both its RSA and management of the TAL to help continue advancing the deployment of ARIN's Resource Public Key Infrastructure (RPKI). Changes to the RSA include language revisions where notable community feedback was provided, while TAL management changes clarify its availability for public distribution and use. While RPKI is well deployed in the ARIN region (with approximately 518 million IPv4 address covered by RPKI), ARIN's recent changes are intended to foster further deployment of RPKI in order to advance secure routing. As always, ARIN welcomes community feedback into its continuing evolution of services and agreements.

Community Grant Program

The ARIN Community Grant Program provides financial grants in support of initiatives that improve the overall Internet industry and Internet user environment. ARIN will award grants to support qualified operational and research projects that advance ARIN's mission, and broadly benefit the Internet community within the ARIN Region. ARIN has funded 15 projects since the program launch in 2019. To be eligible for funding, projects much fit into one of more of the following categories: Internet technical improvements, registry processes and technology improvements, informational outreach, and/or research. Grant recipients are required to provide written reports on project status and outcomes as well as a final written report which is made publicly available. In 2023, the ARIN Community Grant Program has a budget of \$60,000 (USD) to provide funding to successful applicants in varying amounts, between \$1,000 and \$20,000 (USD), based on project need. Applications for grants can be made beginning April 2023 when the online application page opens on ARIN's website. Applications will be accepted through mid-June 2023. ARIN wishes to highlight this program to those interested; more information is available at https://www.arin.net/about/community_grants/program/

Fellowship Program

Internet governance and number resource policy are powered by community participation. To encourage and foster new voices and active members within the ARIN region community, the ARIN Fellowship

⁴ ARIN Number Resource Policy Manual, 4.4 Micro-Allocation Policy, <https://www.arin.net/participate/policy/nrpm/#4-4-micro-allocation>, 22 February 2023

⁵ FCC Launches Inquiry into Internet Routing Vulnerabilities, 28 February 2022, [fcc.gov/document/fcc-launches-inquiry-internet-routing-vulnerabilities](https://www.fcc.gov/document/fcc-launches-inquiry-internet-routing-vulnerabilities)

Program provides a specialized, interactive learning opportunity to individuals interested in these aspects of the Internet and their professional growth in the industry. Fellows have not only contributed to important Internet governance and ARIN policy related matters but have also been elected to both ARIN's Board of Trustees and Advisory Council.

A group of up to 10 Fellows is selected twice a year to participate in the month-long program before and during an ARIN Public Policy and Members Meeting. Fellows receive an in-depth, expert-guided introduction to the workings of the ARIN organization and Policy Development Process (PDP), along with opportunities for networking and direct participation in the PDP. With the personal support of an ARIN community member mentor, Fellows progress through an engaging and approachable agenda of presentations, discussions, and Q&As with ARIN leadership, including ARIN staff and Advisory Council members. The sessions provide an overview of Internet governance, Internet number resource policy and its development, ARIN services and operations, and the Internet Number Registry System. Fellows can ask questions, get feedback, and gain the knowledge and confidence to join in community discussions, propose new ideas, and become part of the future of Internet governance and policy in the ARIN region. Fellows should anticipate spending a few additional hours outside of the sessions reading materials and preparing for group discussions. More information regarding the fellowship program can be found at: <https://www.arin.net/participate/meetings/fellowships/> and ARIN encourages this opportunity to all interested parties. It is worth noting that the next meeting, ARIN 52, will be 19 – 20 October 2023 in San Diego California – registration will open about mid-July 2023. CITEL participants are welcome to attend.

In addition to considering this update in ICT planning, participants are encouraged to reach out to ARIN for any assistance - Einar Bohlin, einarb@arin.net, Vice President of Government Affairs and Nate Davis, ndavis@arin.net, Senior Government Affairs Analyst.