

Mission Statement

Applying the principles of stewardship, ARIN, a nonprofit corporation, allocates Internet Protocol resources; develops consensus-based policies; and facilitates the advancement of the Internet through information and educational outreach.



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ARIN XIII Vancouver, BC

Mark your calendars, make your reservations, and pack your bags for ARIN XIII, April 18-21, 2004, in Vancouver, British Columbia, Canada! The meeting location will be the Sheraton Vancouver Wall Centre.

On Sunday, April 18, ARIN will hold two workshops, a Policy Proposal BoF, and the 5th Annual Foosball Tournament. Monday, April 19, will be the first day of the Public Policy

Meeting and, that evening, another exciting social event. The second day of the Public Policy Meeting will follow on Tuesday, April 20, and the meeting will end on Wednesday, April 21, with the Members Meeting. Draft agenda and other information is available at <http://www.arin.net/ARIN-XIII/>.

ARIN would like to express its appreciation for the sponsorship support from Shaw and Big Pipe, Telus, and Peer 1 Networks and look forward to a great turnout in Vancouver.

Sunday Workshops and Policy BoF

Workshop: Using X.509 Authentication with ARIN's Database

ARIN staff will present information on how ARIN protects your resources when you adopt X.509 authentication. They will also introduce and explain how to use the Cert-Request template and provide an overview of the process of requesting a certificate online. A demonstration of this process will also be provided.

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AfriNIC Update

Adiel AKPLOGAN, AfrinIC Project Manager, visited the ARIN offices January 20-22, 2004. He met with all ARIN department directors to learn about ARIN processes and procedures. Discussions covered the areas of:

- personnel and administration
- finance and business
- engineering
- registration services
- membership
- meetings
- elections
- communications



Adiel AKPLOGAN (center) and ARIN staff during January 2004 visit

In turn, Adiel presented an outline of AfrinIC's proposed transition plan.

1st Quarter
2004



American Registry for Internet Numbers
3635 Concorde Parkway
Suite 200
Chantilly, VA 20151

Upcoming Internet Community Meetings Calendar

ARIN XIII

April 18-21, 2004
Vancouver, BC, Canada

RIPE 48

May 3-7, 2004
Amsterdam, the Netherlands

INET/IGC 2004

May 10-14, 2004
Barcelona, Spain

AfNOG V/AfriNIC I

May 16-24, 2004
Dakar, Senegal

NANOG 31

May 23-25, 2004
San Francisco, CA, USA

Updates to this calendar can be found at:
http://www.arin.net/library/internet_info/calendar.html.

Internet Community Meeting Reports

RIPE 47

**January 26-30, 2004
Amsterdam, NL**

The RIPE 47 Meeting was held January 26 - 30, 2004, at the NH Grand Hotel Krasnapolsky in Amsterdam, the Netherlands. Highlights of the meeting included a discussion on the services of the RIPE NCC; the discussion of a new policy development process that would utilize some of the same basic principles as the ARIN policy development process; presentations on and discussion of the existing IPv6 policies, the RIR's IPv6 address space needs and IPv6 security issues; updates on the World Summit on the Information Society (WSIS) from Mirjam Kuhne, ISOC, and Axel Pawlik, Managing Director, RIPE NCC; and a policy discussion centering on a new minimum allocation size of /22 for the African region of the RIPE NCC. A variety

of interesting presentations were made, including presentations by all four RIRs, as well as by AfriNIC, an emerging RIR.

<http://www.ripe.net/ripe/meetings/ripe-47/>

NANOG 30 February 8-10, 2004 Miami, FL, US

NANOG 30 was held from February 8-10, 2004, in downtown Miami and celebrated not only NANOG's 30th meeting, but also its 10 year anniversary. To commemorate this special occasion, a wide variety of special guest speakers was assembled, and several sessions were scheduled that highlighted "Network Operations, Past, Present, and Future." Included in the array of speakers were Scott Bradner and John Curran (both ARIN Board members), Phil Karn, Van Jacobson, Steve Bellovin, Sue Hares, Doug Humphrey, and many others who have been involved in Internet operations since the early days and who were willing to share some of their experiences. As in past NANOGs, tutorials were held on Sunday afternoon, and the general session began on Monday morning, with the BoFs scheduled for Monday evening following the Beer n' Gear. Tutorial topics included "MPLS-Based Layer 2 VPNs" and "Customer Triggered Real-Time Blackholes," and general session talks included an "Anniversary Retrospective" as well as other technical talks.

<http://www.nanog.org/mtg-0310>

APRICOT / APNIC 17 February 23-27, 2004 Kuala Lumpur, MY

APNIC 17 was held in Kuala Lumpur, February 23-27, 2004, in conjunction with APRICOT 2004. Attendance numbers for the APNIC Open Policy Meeting were some of the highest ever. The Member Meeting was also well attended, with 123 (including APNIC staff) delegates representing 27 economies and 54 APNIC member organizations. Delegates from the other RIRs (ARIN, LACNIC, RIPE NCC) and AfriNIC were also present.

Three people were elected to the APNIC

Executive Council (EC):

Maemura Akinori (re-elected)
Che-Hoo Cheng (re-elected)
Vinh Ngo

Proposals approved at the meeting and sent to last call include the following:

- Lowering the minimum allocation to /21.
- Allowing IPv6 allocations to closed networks.
- Recovering unused historical IPv4 addresses.
- Protecting historical resource records in the APNIC Whois Database.

The full list of current APNIC proposals are available at:

<http://www.apnic.net/docs/policy/proposals/>.

More information about this meeting can be found at:

<http://www.apnic.net/meetings/17/report.html>.

ICANN March 2-6, 2004 Rome, IT

Text from ICANN's website.

The Internet Corporation for Assigned Names and Numbers (ICANN) held its first meeting of 2004 in Rome where a record number of delegates took part in over 27 fora to discuss the issues regarding the technical coordination of the Domain Name System (DNS).

ICANN's global framework expanded with the formation of the Country Code Name Supporting Organization (ccNSO), a new, global, policy development arm of ICANN. The ccNSO will provide ccTLD managers a forum to address global policy issues that affect ccTLDs, with the side benefit of sharing regional Internet issues and policies while attending to the needs of their local communities and jurisdictions.

Additionally, the ICANN Board appointed Jean-Jacques Damlamian, a senior French businessman, as chair of ICANN's Nominating

Committee. The Nominating Committee is composed of representatives from ICANN's broad community and is responsible for appointing members to the ICANN board and ICANN supporting organizations.

In another action, the ICANN Board approved the results of negotiations with VeriSign regarding the deployment of VeriSign's proposed Wait Listing Service (WLS).

<http://www.icann.org/meetings/rome/>

IETF 59 February 29 - March 5, 2004 Seoul, KR

The 59th IETF featured a strong emphasis on IPv6 and, in particular, mobile IPv6, reflecting the growing interest in merging the World Wide Web with mobile telephones. Particularly interesting is a working group called "Site Multihoming In IPv6," which is investigating ways to permit enterprises on the Internet to truly benefit from multiple providers without special addressing concerns.

The work of this group is also linked to the mobile IPv6 work, and the work was featured in a plenary presentation. Meanwhile, the IETF also continues to grapple with reorganization to adapt to the changing nature of the Internet.

ARIN staff members attended sessions on IPv6, routing, DNS, and registry protocols as well as attending the Internet Engineering and Planning Group and Root Server System Advisory Council. One BoF attended was "MTA Authorization Records in DNS," which may lead to an exploration of ways to abate mail system abuse. There were also meetings to exchange notes with the other RIR engineering staffs, as well as a workshop with KRNIC on DNSSEC. KRNIC is a National Internet Registry in the APNIC region, it also is the .KR domain name registry.

<http://www.ietf.org/meetings/meetings.html>

ASO General Assembly 2004 and Call for Nominations for ICANN Board of Directors

The Address Council of the Address Supporting Organization (ASO AC) has announced the 5th ASO General Assembly Meeting, to be held on Wednesday, May 5, 2004 in Amsterdam, the Netherlands.

This meeting will be hosted by the RIPE NCC alongside the RIPE 47 Meeting and will be open to all parties with an interest in ASO policy matters. A detailed meeting agenda will be forthcoming on the ASO website at: <http://www.aso.icann.org>.

The ASO AC and ICANN have announced the Call for Nominations for candidates to fill an ASO seat on the ICANN Board of Directors. A seat becomes vacant in May 2004, with the expiration of Lyman Chapin's term. Details on the Call and nominating procedures can be found on the ASO website at:

<http://www.aso.icann.org/>.

ARIN encourages members of the community to actively consider and propose candidates for this position. Nominations must be submitted in English and must be received by the ASO Secretariat before 0900 UTC, April 20, 2004.

Feedback on ARIN Training

To facilitate feedback from the community regarding ARIN's education training efforts, ARIN has created a feedback form at:

<http://www.arin.net/library/training/feedback.html>.

This form replaces the training@arin.net e-mail address and provides a forum to provide comments regarding current ARIN education activities and to propose future training topics or ideas.

We invite feedback from everyone through this form so that we can develop education materials and activities that meet the needs of the community. If you have questions about this, please e-mail webmaster@arin.net.

ERX Update

When ARIN was formed in December 1997, it inherited the InterNIC database of existing IP addresses and AS numbers, as well as the responsibility to maintain the records in it. These records became known as "early registrations."

Discussions regarding early registrations have taken place amongst the Regional Internet Registries (APNIC, ARIN, LACNIC, and RIPE NCC) and throughout their communities. It was decided that early registration holders interests would best be served by managing the resources through the appropriate region-specific RIR.

The resulting project, known as the Early Registration Transfer Project (ERX), has been underway since the end of 2002 to transfer oversight of these resources to the appropriate RIRs.

Of the forty-five /8s involved, thirty-six have been successfully transferred. Of the remaining nine /8s, six are scheduled to be completed this April. The last three, 192/8, 196/8 and 198/8, make up what was formerly known as "Class C Space" and the transfer of these records will mark the final phase of the project.

For additional information regarding the ERX Project, including the schedule of transfers, please visit:

<http://www.arin.net/registration/erx/>.

In addition, a Frequently Asked Questions (FAQ) document is available at:

<http://www.arin.net/registration/erx/faq.html>.

Newly Ratified Policies

The following policies were ratified in the ARIN region and became effective January 22, 2004:

2003-13: 6 Month Supply of IP Addresses

http://www.arin.net/policy/2003_16.html

2003-14: Remove /13 Maximum Allocation

http://www.arin.net/policy/2003_14.html

The following policy was ratified in the ARIN region and will be passed along to the ASO AC for forwarding to ICANN:

2003-12: IANA to RIR Allocation of IPv4 Address Space

http://www.arin.net/policy/2003_12.html

The following policies were ratified in the ARIN region. The implementation of these policies is pending the ARIN Board of Trustees' review of a new fee schedule that will have an impact on these policies.

2002-3: Address Policy for Multi-homed Networks

http://www.arin.net/policy/2002_3.html

2003-15: IPv4 Allocation Policy for the Africa Portion of the ARIN Region

http://www.arin.net/policy/2003_15.html

These policies were created in accordance with ARIN's Internet Resource Policy Evaluation Process. Information about ARIN's Internet Resource Policy Evaluation Process is available at:

<http://www.arin.net/policy/ipep.html>.

Note that all policy proposals reviewed under this process, including adopted, abandoned, and obsolete policies, can be found at:

http://www.arin.net/policy/proposal_archive.html.

For a complete report on actions of the ARIN Board of Trustees, see page 7.

Number Resource Organization (NRO) News

The following announcements regarding the Number Resource Organization (NRO) have been made since the beginning of the year.

April 1, 2004

Letter of Intent by ICANN and the NRO

<http://www.nro.org/news/loi.html>

March 24, 2004

NRO Comments Concerning ICANN and the

World Summit of the Information Society

<http://www.nro.org/news/NRO-ICANN-WSIS-200403.html>

March 23, 2004

Open Letter to the UN Secretary-General (PDF)

<http://www.nro.org/docs/NRO-UNICTTF21.pdf>

March 15, 2004

Start-Up Financing of the Emerging AfriNIC

During the Year 2004

<http://www.nro.org/news/afriNIC.html>

February 24, 2004

NRO Reply to ICANN on Proposed ASO MoU (PDF)

<http://www.nro.org/news/afriNIC.html>

January 29, 2004

ICANN Reply to the NRO on Proposed ASO MoU (PDF)

<http://www.icann.org/correspondence/icann-to-nro-29jan04.pdf>

January 1, 2004

New RIR Statistics Published

<http://www.nro.org/news/rir-stats-200401.html>

In addition, the following presentations have been made by the NRO this quarter:

February 27, 2004

NRO / ICANN Update Presentation at APNIC 17

February 20, 2004

NRO Presentation at the 21st CENTR General Assembly

Links to HTML and PDF versions of these presentations can be found at:

<http://www.nro.org/presentations/>.

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In addition, attendees will receive an introduction to the identity-checking procedures ARIN uses, an explanation of how ARIN protects your private information, and useful information for those who use a role account in their interactions with Registration Services. Staff presentations will be followed by a question and answer session.

Workshop: Managing Your ARIN Data

ARIN staff will make a three-part presentation. Part one will focus on understanding data relations and authorization. The second part will be about how to leverage the power of the ARIN data model. Part three will focus on ARIN's WHOIS service, and will include demonstrations of how WHOIS can be used to support good record management by organizations.

Policy Proposal BoF

Looking for community input on your policy idea? This is an opportunity to test out your ideas and solicit feedback from your peers without posting to a larger audience on the Public Policy Mailing List. Informally present your ideas concerning a proposed change to ARIN Internet number resource allocation policies, or introduce a new policy topic.

Please note that these presentations and discussions will not be part of the official meeting agenda or minutes for the two days of public policy meetings that follow. Information on signing up to present is available at: <http://www.arin.net/ARIN-XIII/workshop.html>.

Foosball Tournament

On Sunday evening, ARIN will host its 5th Annual Foosball Tournament. The Tournament will be held in the Azure Room, close to the Sheraton Vancouver Wall Centre's Cracked Ice Lounge on the third floor of the South Tower. Open to all meeting attendees, the four-table tournament is slated to be a team confrontation. You may sign up with a partner, or, if you wish, be paired up with another contender or someone from ARIN's staff. ARIN thanks Telus for sponsoring this event.

ARIN Social

Party under the stars and put your pedal to the metal at the ARIN XIII Social on Monday night! The social will be held at the vibrant SkyBar Vancouver, which is within walking distance of the Sheraton Vancouver Wall Centre. The evening will be filled with music and fun, and will feature "Micro

Reality Stock Car Racing" for added high-octane excitement.

So, whether you have dancing shoes, a lead foot, or just want to enjoy the food and drinks, you can come and join the party! ARIN thanks Shaw and Big Pipe for their partial sponsorships of this event.

Policy Proposals For Discussion at ARIN XIII

Policy discussions at ARIN XIII will be centered around proposals recently introduced to the Public Policy Mailing List (PPML), and those carried over from the previous Public Policy Meeting.

Policy Proposals recently introduced on PPML:

- 2004-1: *Defining Utilization of IPv4 Addresses*
- 2004-2: *Use of HD-Ratio for IPv4 Allocations*
- 2004-3: *Global Addresses for Private Network Inter-Connectivity*
- 2004-4: *Purpose and scope of ARIN WHOIS Directory*

Policy Proposals carried over from the previous Public Policy Meeting:

- 2003-4: *IPv6 Policy Changes*
- 2003-9: *WHOIS Acceptable Use Policy (AUP)*
- 2003-16: *POC Verification*

Leading up to the meeting, policy proposals are open for discussion on PPML. Each of the policy proposals has been previously posted to PPML as an independent thread to facilitate discussion. A summary of the active policy proposals under discussion is available at: http://www.arin.net/policy/proposal_archive.html.

The entire Internet community is invited and encouraged to participate in these policy discussions. Your active participation in these discussions is vital to the process and will help to form policies that are beneficial to all.

New Statistics Format Available

On January 5, 2004, the Regional Internet Registries (APNIC, ARIN, LACNIC, and RIPE NCC) implemented a new standard file format for reporting the current state of Internet resource allocations and assignments for:

- IPv4 address ranges
- IPv6 address ranges
- AS numbers

The new file format, now available from all RIRs, ensures consistency and makes it easier for users to integrate and analyze data from different sources. The reports contain a snapshot of the status of Internet number resources, without any details of transaction histories. They are produced daily and include:

- Information summaries
- GPG key signatures
- MD5 checksums for verification

Statistics files

The latest statistics files are available from the RIR sites listed below. Each RIR site also mirrors the files of the other RIRs.

ARIN
<ftp://ftp.arin.net/pub/stats/arin/delegated-arin-latest>

APNIC
<ftp://ftp.apnic.net/pub/stats/apnic/delegated-apnic-latest>

LACNIC
<ftp://ftp.lacnic.net/pub/stats/lacnic/delegated-lacnic-latest>

RIPE NCC
<ftp://ftp.ripe.net/pub/stats/ripenncc/delegated-ripenncc-latest>

More information

ARIN
<ftp://ftp.arin.net/pub/stats/arin/README>

APNIC
<http://www.apnic.net/db/rir-stats-format.html>

LACNIC
<ftp://ftp.lacnic.net/pub/stats/lacnic/delegated-lacnic-latest>

RIPE NCC
<ftp://ftp.ripe.net/pub/stats/ripenncc/RIR-Statistics-Exchange-Format.txt>

Board Actions

The ARIN Board of Trustees met on January 5, 2004, and January 10, 2004. They took the following actions:

- Elected officers. John Curran was re-elected as Chairman, Scott Bradner was re-elected as Board Secretary, and Lee Howard was re-elected as Board Treasurer.
- Discussed and accepted a revision of ARIN's Registration Services Agreement (RSA).
- Approved an annual \$50,000 contribution to Merit *"for the purpose of electronically disseminating the NANOG meetings."*
- Discussed an ARIN meeting in Africa for the purpose of developing common policies across the emerging AfriNIC region. The meeting will take place this summer.

The Board of Trustees also met on March 22, 2004, but the minutes from that meeting have not yet been approved and published. Actions from the meeting will be available via the Board meeting minutes on ARIN's website at:

<http://www.arin.net/library/minutes/bot/>

and in the 2nd quarter newsletter.

Solution to Last Issue's Crossword

M	E	R	C	I		M	A	S	S
O			V			M	C		
N	A	B		S	P	I	R	I	T
T		A		C	O	V	E		O
R		C	R	O	P				R
E		H		T			N	R	O
A		M	I	T		M	E		N
L	E	A	P	Y	E	A	R		T
		T	N			R	D		O
C	A	N	U	C	K	S			

WHOIS: Past and Present

By Leo Bicknell

"WHOIS" has received a lot of attention in various ARIN forums over the past few years. Some quote history; others seem ignorant of what has happened in the past. Regardless, knowing the history should help everyone make informed decisions. This article is not a complete history, but should serve as an outline of the major events that are of particular importance to today's discussions.

History

The beginning is RFC 812, published March 1, 1982, entitled "NICNAME/WHOIS." To help put the dates into context, at that time WHOIS was being run by the Network Information Center at SRI International. The interesting section about what data should be in the database reads:

WHO SHOULD BE IN THE DATA
BASE

DCA requests that each individual with a directory on an ARPANET host, who is capable of passing traffic across the ARPANET, be registered in the NIC Identification Data Base.

To register, send full name, middle initial, U.S. mailing address (including mail stop and full explanation of abbreviations and acronyms), ZIP code, telephone (including Autovon and FTS, if available), and one network mailbox, via electronic mail to NIC@SRI-NIC.

At its root, the database started life as a complete directory of all "Internet users."

It should be noted that WHOIS and FINGER (RFC 742, 1196, 1196, 1288) are very similar, which is referenced in the original WHOIS RFC (812). There is evidence some early clients for both services were the same program, trivially modified to have different names and make connections on the different ports.

What should be in the database was updated in 1985 by RFC 954 (Obsoletes RFC 812), with a very similar requirement:

WHO SHOULD BE IN THE DATABASE

DCA requests that each individual with a directory on an ARPANET or MILNET host, who is capable of passing traffic across the DoD Internet, be registered in the NIC WHOIS Database. MILNET TAC users must be registered in the database. To register, send via electronic mail to REGISTRAR@SRI-NIC.ARPA your full name, middle initial, U.S. mailing address (including mail stop and full explanation of abbreviations and acronyms), ZIP code, telephone (including Autovon and FTS, if available), and one network mailbox. Contact the DDN Network Information Center, REGISTRAR@SRI-NIC.ARPA or (800) 235-3155, for assistance with registration.

Again, a definition which includes all "Internet users."

The first real change to this policy is in RFC 1714, published in 1994. Indeed, this RFC actually covers the RWhois protocol, but includes important information about the transfer of information to the InterNIC, and what information will be kept in the database going forward:

Early in ARPANET development, the SRI-NIC established a centralized whois database that provided host and network information about the systems connected to the network and the E-mail addresses of the users on those systems. The ARPANET experiment has evolved into a global network with countless people and hundreds of thousands of end systems. Given the sheer size and effort needed to maintain a centralized database, an alternate, decentralized approach to store and display this information is desired.

The Internet portions of the DDN NIC have been transitioned to what is now known as InterNIC Registration Services (RS). The charter for InterNIC RS has been



reduced to maintain information only for IP networks, top-level domains, Autonomous System Numbers, and the points of contact for each of these particular entities. In addition, the InterNIC, in its role as an Internet Registry (IR), has delegated IP block assignment authority to Regional Registries such as the RIPE NCC for Europe and the APNIC for the Asian Pacific region, while retaining authority for North America and all non-delegated regions. This has led to a fragmentation of whois service to the Internet user.

What is recognized is that tracking every individual user is not a practical task, nor is it necessary for functional operation. In particular, the statement on the essential elements now being tracked is significant:

The charter for InterNIC RS has been reduced to maintain information only for IP networks, top-level domains, Autonomous System Numbers, and the points of contact for each of these particular entities.

Note: If anyone has more information on the text of the initial InterNIC charter, I would be very interested in reading that to see if any other wording is there.

A parallel can be drawn to DNS. Remember at this point in history the InterNIC handled both DNS and IP services. The InterNIC tracked only top-level domains. If you had "bar.com" and decided to delegate "foo.bar.com" to someone else the InterNIC didn't need to know anything about it, nor were there any reporting requirements for that delegation.

The next RFC is RFC 1834 in 1995. In this RFC there is acknowledgment that local groups may want to run their own WHOIS service. Looking at mailing list archives it seems some people were upset by the removal of individual records from the NIC database, and wanted to use WHOIS for their own local databases. The RFC defines the fields to do this, but never relates it back to IP or domain registration functions other than to mention the original NIC database. This work

is continued in RFC 1835 (published in 1995), RFC 1913 and RFC 1914, published together in February 1996.

The next interesting RFC is 2167, published in 1997. The interesting portions are:

Early in the development of the ARPANET, the SRI-NIC established a centralized Whois database that provided host and network information about the systems connected to the network and the electronic mail(email) addresses of the users on those systems [RFC 954]. The ARPANET experiment evolved into a global network, the Internet, with countless people and hundreds of thousands of end systems. The sheer size and effort needed to maintain a centralized database necessitates an alternate, decentralized approach to storing and retrieving this information.

The original Whois function was to be a central directory of resources and people on ARPANET. However, it could not adequately meet the needs of the expanded Internet. RWhois extends and enhances the Whois concept in a hierarchical and scalable fashion. In accordance

with this, RWhois focuses primarily on the distribution of "network objects", or the data representing Internet resources or people, and uses the inherently hierarchical nature of these network objects (domain names, Internet Protocol (IP) networks, email addresses) to more accurately discover the requested information.

An unsurprising theme to the RWhois work is that a single centralized database isn't going to work, and that instead the database should be distributed along with the resource.

The last RFC of interest is RFC 2345. This is a fascinating extension that seems to have never been used. It uses the "WHOIS" protocol to find web sites for businesses. It does not build on any of the existing WHOIS database schema, but was proposed as a separate, commercially run service that simply used the same protocol.

"The original Whois function was to be a central directory of resources and people on ARPANET."

There is one other item that predates ARIN. Some time in 1995, SWIP came into existence. There is limited information about the initial roll out of SWIP. This actually came out of the first requirements to be careful with the allocation of IP space. CIDR was a new concept, and being put into practice. The InterNIC was starting to implement an allocation policy based on need, rather than one based on the type of your network. An initial post about this policy to the NANOG mailing list is available at <http://www.cctec.com/maillists/nanog/historical/9505/msg00087.html>. Of interest are the reasons given for needing SWIP information:

Subsequent allocations of CIDR block addresses will be based on need; this need will be demonstrated based on the number of reassignment actions that have been transmitted to the InterNIC Registry. Reassignment information is to be forwarded to the InterNIC within 7 days of the assignment so that the WHOIS may be maintained efficiently.

Transmission of reassignment information is also necessary for the following reasons:

- a) To ensure that a provider has exhausted, or is about to exhaust its current CIDR allocation such that an additional allocation is justified.
- b) To allow operational people to see which organization is using the network and who to contact in the event of operational/security problems, etc.
- c) To assist in IP allocation studies.

Today's Policies

The policies ARIN currently implements are also of interest. ARIN collects data and publishes a subset of that information via WHOIS. First "ISP Additional Requests:"

1. Provide utilization information via SWIP or RWhois for all /29 and shorter prefix lengths. SWIP and RWhois reassignments

should show each client's organizational information. The format below should be used to provide the required information for utilization of blocks smaller than /29 and for describing internal networks.

Note that this is stronger than the "Reassigning Address Space to Customers" policy, which states:

ISPs are required to apply a utilization efficiency criterion in providing address space to their customers. To this end, ISPs should have documented justification available for each reassignment. ARIN may request this justification at any time. If justification is not provided, future receipt of allocations may be impacted. In extreme cases, existing allocations may be affected.

This policy only requires the documentation to be made available; it doesn't require information to be in SWIP or RWhois.

Policy 2002-4 allows for the database to be provided in bulk to those who agree to the AUP. It made obsolete policy 2001-

7, which was an older version of the bulk copy policy.

Many proposals, since abandoned, have attempted to change WHOIS (most of which have additional implications as well):

- 2003-1 Required Performance of Abuse Contacts
- 2003-2 Network Abuse
- 2003-11 Purpose and Scope of WHOIS Directory

Currently, within ARIN's Internet Resource Policy Evaluation Process (IRPEP), proposal 2003-3 "Residential Customer Privacy" has moved to Last Call. This policy exempts ISPs from publishing some personally identifying information about "residential users" who receive IP addresses in WHOIS. There is also 2003-9, an active policy



WHOIS

proposal to update the WHOIS Acceptable Use Policy.

Finally there are many ongoing discussions on the Public Policy Mailing List. These are broad summaries by category:

• **Worries that privacy and/or lack of data will be abused by various groups for "bad" purposes**

Owen DeLong offered a proposal on this after residential privacy was passed. It can be found at http://www.arin.net/ mailing_lists/ppml/2471.html. Indeed, there was a lot of concern from several fronts both that this policy could be abused by those who want to hide their networks to help cover up illegal activities (chiefly spamming), and also that the lack of information would hinder prosecution of the individuals.

Some have suggested that violators should be suspended, http://www.arin.net/ mailing_lists/ppml/0745.html.

• **POC verification**

Even if the data is in WHOIS, it seems to have a way of becoming stale. Various proposals have been made and discussed; a good recent thread is at http://www.arin.net/ mailing_lists/ppml/1807.html, and an older thread at http://www.arin.net/ mailing_lists/ppml/1395.html. On a related note, it was proposed that it should be required for the POC to be a human, http://www.arin.net/ mailing_lists/ppml/1290.html.

• **Privacy as a concern**

Many people think too much information is being made public about individuals in particular. Recent discussion is at http://www.arin.net/ mailing_lists/ppml/1768.html. An older thread even asked the question if being anonymous was a justification on its own http://www.arin.net/ mailing_lists/ppml/0504.html.

• **How much data should be in the database and what is needed by ARIN**

A request from 2001 to move the SWIP requirement from a /29 to a /28 is at http://www.arin.net/ mailing_lists/ppml/0309.html.

• **RWhois**

It seems like there have been problems with RWhois since day one in that the software has never worked as initially envisioned. That hasn't stopped it from being used though, in some cases to great success. It has languished at various times though, as per this e-mail: http://www.arin.net/ mailing_lists/ppml/0246.html. Also while there is no direct thread, because of the way referrals (don't) work, RWhois is often harder to chase down. This comes up from time to time in other threads.

Summary

It is hoped that this historical view, along with some information on the current state of the various debates around WHOIS, will help the ARIN membership make decisions. Decisions made years ago are no longer applicable. Decisions made today may not

apply in the future. While a small number of members are quite vocal about these issues, many of the members don't seem to understand the problems. All members need to pay attention to the threads on WHOIS and what information should be in a public database and how it is distributed. Hidden in the details are items that could fundamentally change online anonymity, the amount of work your company must do to publish information, and the effectiveness of combating network abuse, including spam and DDOS attacks. Even those that don't actively participate in the discussions will eventually be asked to vote on these important issues.

Leo Bicknell, a member of the ARIN AC, has worked in a variety of engineering capacities for the IP Network at AboveNet including configuration, design, and management. His previous work experience includes a diverse representation of Internet users and positions in network research and development, network consulting, and backbone networking. Leo holds a B.S. in Computer Science from Virginia Tech.

"Decisions made years ago are no longer applicable."

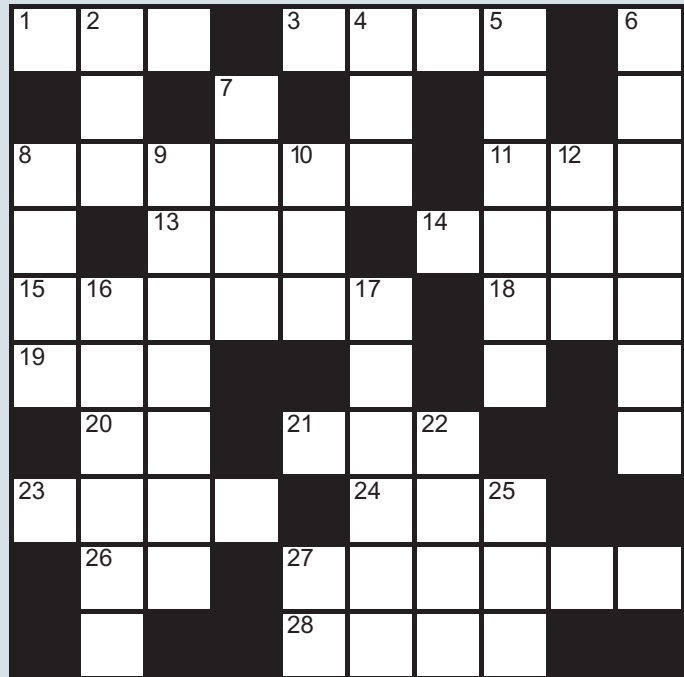
Crossword

Across

- 1. Unique code used to identify vehicles
- 3. Largest particle physics lab in the world
- 8. Period for ARIN meetings is bi-_____
- 11. Generally speaking, have shorter lives
- 13. Abbreviation for environmental watchdog group made up of scientists
- 14. Fancy word for beige
- 15. Not Juliets but these
- 18. A type of bad guy in Lord of the Rings
- 19. To decline
- 20. French "I"
- 21. Roman numeral of ARIN meeting in Fall 2004
- 23. Not a geek or dork, but a _____
- 24. ___ the line
- 26. First two initials of creator of Narnia
- 27. What you should do with unused IP space
- 28. A reassignment is made to an end-_____

Down

- 2. First name of the creator of character licensed to kill
- 4. Smoked version of this is popular in sushi
- 5. Shortened name for entity formed to oversee the nomination process for elections of the ARIN Board
- 6. Name of Vancouver hockey team
- 7. A dark red color
- 8. Equals 4046.86 square meters or 43,560 square feet



- 9. Autonomous System _____
- 10. Abbr. for the RIR-related entity that is one of three Supporting Organizations called for in ICANN bylaws
- 12. To ___ is human
- 16. What one orients on in a certain type of programming
- 17. Groups of things forming a unit or constituting a collection
- 22. Activity for November
- 25. Abbr. for monetary unit used mainly in RIPE NCC region
- 27. Two-letter code for country that is home to the Hermitage Museum

Solution will appear in next quarter's newsletter.



ARIN Today, a quarterly newsletter, is produced for the ARIN membership and the Internet community. Articles and contributions dealing with IP address issues and technology are welcome from all sources.

Each issue is filled with news highlights, meeting descriptions, policy updates, and information about training and other services ARIN provides its members. Technology news and interesting applications are also covered.

If you have an idea about an article you'd like to submit, or something you'd like to see, please contact the editor at webmaster@arin.net.

Editor-in-Chief: Jason Byrne

Contributors:

- Einar Bohlin
- Susan Hamlin
- Megan Kruse
- Ed Lewis
- Leslie Nobile

